Technical Memorandum

Phase 3 Chemical Data Gap Investigation Sampling Results Go-Backs, Trenches and Soil Vapor Locations Santa Susana Field Laboratory Ventura County, California

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Acronyms and Abbreviations

%	percent
%D	percent difference/percent drift
%R	percent recovery
mg/kg	milligram per kilogram
mg/L	milligram per liter
ng/kg	nanogram per kilogram
pg/L	picogram per liter
µg/kg	microgram per kilogram
µg/L	microgram per liter
<	less than
AOC	Administrative Order on Consent
AST	above-ground storage tank
ASTM	ASTM International Type II
bgs	below ground surface
BHC	benzene hexachloride
CAS	chemical abstract number
CDD	chlorinated dibenzo-p-dioxins
CDF	chlorinated dibenzofurans
CDM Smith	CDM Federal Programs Corporation
CoC	chain-of-custody
Cr(VI)	hexavalent chromium
DOE	Department of Energy
DPT	direct push technology
DQI	data quality indicator
DQO	data quality objective
DTSC	Department of Toxic Substances Control
DUAR	data usability assessment review
EFH	extractable fuel hydrocarbon
EMPC	estimated maximum possible concentration
EPA	U.S. Environmental Protection Agency
ESA	Ecological Sensitive Area
FSDF	Former Sodium Disposal Facility
FSDS	field sample data sheet
FSP	field sampling plan
ft	feet
FTL	field team leader
GIS	geographic information system
GPS	global positioning system
GRO	gasoline range organics
HSA	Historical Site Assessment
HpCDF	heptachlorodibenzofuran
HxCDF	hexachlorodibenzofuran
ICP	inductively coupled plasma
ID	identifier

ISF	interim storage facility
ISL	interim screening level
J	estimated
LCS	laboratory control sample
LCSD	laboratory control sample duplicate
LL	Eurofins Lancaster Laboratories
Master FSP	Master Field Sampling Plan
MCPA	2-methyl-4-chlorophenoxyacetic acid
MCPP	methylchlorophenoxypropionic acid
MDL	method detection limit
MS	matrix spike
MSD	matrix spike duplicate
MWH	MWH Americas, Inc.
NBZ	Northern Buffer Zone
ND	nondetect
NW	northwest
OCDD	octachlorodibenzodioxin
OCDF	octachlorodibenzofuran
OSWER	Office of Solid Waste and Emergency Response
PAH	polycyclic aromatic hydrocarbon
PARCCS	precision, accuracy, representativeness, comparability, completeness and sensitivity
PCB	polychlorinated biphenyl
PCT	polychlorinated triphenyl
PeCDF	pentachlorodibenzofuran
PID	photoionization detector
QA	quality assurance
QAPP	quality assurance project plan
QC	quality control
RCRA	Resource Conservation and Recovery Act
RFI	Facility Investigation Reports
RL	reporting limit
RMHF	Radioactive Material Handling Facility
RPD	relative percent difference
SDG	sample delivery group
SE	southeast
SIM	selective ion monitoring
SNAP	Streamlined New Acquisition Process
SOP	standard operating procedure
SOW	statement of work
SRE	Sodium Reactor Experiment
SSFL	Santa Susana Field Laboratory
SVOC	semivolatile organic compound
TCDD	2,3,7,8-tetrachlorodibenzo-p-dioxin
TEQ	toxicity equivalence
TEF	toxicity equivalence factor
TM	technical memorandum

TPH	total petroleum hydrocarbon
U	nondetect
UJ	estimated nondetect
VOC	volatile organic compound
2,4,5-T	2,4,5-trichlorophenoxyacetic acid
2,4-D	2,4-dichlorophenoxyacetic acid
2,4-DB	2,4-dichlorophenoxy butyric acid

Section 1
Introduction

This Technical Memorandum (TM) presents the results of chemical analyses of surface and subsurface soil samples collected between January and June 2014 from Phase 3 soil borings for Go-Backs, Trenches and Soil Vapor Locations at the Santa Susana Field Laboratory (SSFL) site in Ventura County, California. This work was performed under eight planning documents:

- *Master Field Sampling Plan for Chemical Data Gap Investigation Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California* (CDM Federal Programs Corporation [CDM Smith] 2012a) (Master Field Sampling Plan [FSP])
- *Addendum No. 10 to Master Field Sampling Plan for Chemical Data Gap Investigation, Phase 3 Go-Back Soil Chemical Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California, Subareas 5B,5C and 3/6* (CDM Smith 2014) (Addendum to the Master FSP)
- *Addendum No. 11 to Master Field Sampling Plan for Chemical Data Gap Investigation, Phase 3 Go-Back Soil Chemical Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California, Subareas 5A, 5D, 8 and Northern Buffer Zone (*CDM Smith 2014) (Addendum to the Master FSP)
- *Addendum No. 12 to Master Field Sampling Plan for Chemical Data Gap Investigation, Phase 3 Soil Vapor Implementation for Area IV, Santa Susana Field Laboratory* (MWH Americas, Inc. 2014a) (Addendum to the Master FSP)
- *Final Phase 3 Data Gap Analysis for Subareas 5B, 5C, 3/6, and 7 Technical Memorandum, Santa Susana Field Laboratory, Ventura County*, (MWH Americas, Inc. 2013)
- *Final Phase 3 Data Gap Analysis for Subareas 5A, 5D, and 8 and Northern Buffer Zone Technical Memorandum, Santa Susana Field Laboratory, Ventura County,* (MWH Americas, Inc. 2014)
- *Technical Memorandum Summary of Phase 3 Trench Investigation Activities in Area IV, Santa Susana Field Laboratory, Ventura County* (MWH September 2014)
- *Phase 3 Subarea 5A North Implementation Plan, Santa Susana Field Laboratory* (United States Department of Energy [DOE] 2013)

The Master FSP (CDM Smith 2012a) is Appendix A of the *Work Plan for Chemical Data Gap Investigation, Phase 3 Soil Chemical Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California* (CDM Smith 2012c), which also includes Appendix B, Quality Assurance Project Plan (QAPP), Appendix C, Worker Safety and Health Program, and Appendix D, Standard Operating Procedures (SOPs).

The Implementation Plan (DOE 2013) referenced above supplements the Subarea 5A Data Gap Analysis TM that was submitted as Attachment 1 in Addendum Number 4 to the Master FSP (CDM Smith 2012b). The Implementation Plan (DOE 2013) provided a re-evaluation of total sampling needs

for Subarea 5A deferring sampling decisions until the "Go-Back" [1] assessment was completed. Based on that assessment some locations were determined no longer necessary or were deferred to the remedial planning stage. For those locations sampled, they are reported in this TM.

This TM also provides a description of the sampling activities and a discussion of the analytical data review findings for Phase 3 sampling for Go-Backs, Trenches and Soil Vapor Locations. The TM does not provide an interpretation of the results. The data provided in this TM are intended to be combined with data collected under the prior Resource Conversation and Recovery Act (RCRA) Facility Investigation and the chemical collocated sampling program (Phase 1 sampling) to support the Soil Remedial Action Implementation Plan for chemicals in soil in Area IV. The collocated sampling program was Phase 1 of the chemical investigation activities under the Administrative Order on Consent (AOC) or Remedial Action [Docket Number HSA-CO 10/11-037] between DOE and the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) (DTSC 2010).

1.1 Objective and Basis for Data Gap Investigation Sampling for Go-Backs, Trenches and Soil Vapor Locations

The specific objective of sampling under the Chemical Data Gap Investigation is to identify the nature and extent (vertical and lateral) of soil contamination within Area IV for cleanup remedy evaluation.

Go-Backs

Go-Back sampling was completed during two separate sample events. The data gap analysis listed below provides the rationale for selection of each sample location and the chemical sampling rationale.

The document, *Final Data Gap Analysis for Subareas 5B, 5C, 3/6 Technical Memorandum, Santa Susana Field Laboratory, Ventura County, California, (MWH 2014)* was prepared by MWH Americas, Inc. (MWH) and included as an attachment to *Addendum No. 10 to Master Field Sampling Plan for Chemical Data Gap Investigation, Phase 3 Go-Back Soil Chemical Sampling at Area IV for Subareas 5B, 5C, 3/6* (CDM Smith 2014).

The document, *Final Data Gap Analysis for Subareas 5A, 5D, 8, and Northern Buffer Zone Technical Memorandum, Santa Susana Field Laboratory, Ventura County, California*, (MWH 2014) was prepared by MWH and included as an attachment to *Addendum No. 11 to the Master Field Sampling Plan for Chemical Data Gap Investigation, Phase 3 Go-Back Soil Chemical Sampling at Area IV for Subareas 5A, 5D, 8, and Northern Buffer Zone (CDM Smith 2014).*

Trenches

Soil samples were collected from trenches to address data gaps proposed in the Final Phase 3 Data Gap Analysis Technical Memorandums for Subareas 5A, 5B, 5C, 5D, 3/6, 7 and 8. The trench locations were selected according to previous geophysical surveys, aerial photos, debris surveys and historical

[1] During the "Go Back" evaluation that occurred the spring of 2014, DOE evaluated the totality of information collected for Area IV along with the proposed cleanup standards. This evaluation included proposed sample locations within Subarea 5A to determine their necessity for completing characterization objectives. Some proposed locations were not sampled based on this assessment.

document reviews. A summary of observations observed and recorded during trenching, including descriptions of targeted features and new findings, are presented in the *Technical Memorandum Summary of Phase 3 Trench Investigation Activities in Area IV, Santa Susana Field Laboratory, Ventura County* (MWH September 2014).

Soil Vapor

Soil Vapor sampling for volatile organic compounds (VOCs) was conducted by MWH within Area IV, over all subareas, to further characterize contamination at potential sources in accordance with the AOC. The sample locations were selected by a focused approach based on known or suspected chemical use areas and in areas of groundwater VOC impacts. Soil vapor sampling activities and results are presented in the *Technical Memorandum Summary of Phase 3 Soil Vapor Investigation Activities in Area IV, Santa Susana Field Laboratory, Ventura County* (MWH September 2014).

CDM Smith collected soil samples at selected MWH soil vapor locations.

Soil Samples

CDM Smith was responsible for all aspects of the field sampling program under Phase 3 of the AOC, including:

- Staking the sample locations with Global Positioning System (GPS) that were selected as a result of the data gap investigation in the field using geographic information system (GIS) coordinates
- Collection of all samples in accordance with the procedures and controls specified in the Master FSP (CDM Smith 2012a), including but not limited to: sample collection; sample container preparation; sample handling; and documentation
- Sample management and shipment, laboratory coordination, and chemical analyses of the samples
- Data review and validation

1.2 Geology

The Chatsworth Formation (Fm) underlies approximately 80 percent of Area IV and is composed predominantly of sandstone interbedded with siltstone and shale. The Santa Susana Fm is composed of interbedded micecous claystone, siltstone and thin sandstone layers, underling approximately 20 percent of Area IV. The tan fine-grained sandstones of the Santa Susana predominantly Fm are known for thin shell beds and calcareous concretions, many observed in outcrops and in Subarea 8 and southern parts of Subarea 5D. The overlying native soils encountered in all other subareas range from silty sands to sandy silts at shallow depths with increasing clay content to 10 feet below ground surface (ft-bgs). Disturbed areas in all subareas are comprised of fill soils of unknown origin and debris such as concrete, asphalt, and wood. The contact with both formations at many soil boring locations occurs between 2 and 10 ft-bgs. Additional information regarding the geology in Area IV can be found in Volume I of Group 5 – Central Portion of Areas III and IV RCRA Facility Investigation Report, Santa Susana Field Laboratory, Ventura County, California (CH2M Hill 2008).

1.3 Technical Memorandum Organization

This TM includes the following sections:

- **Section 1 - Introduction** – Summarizes the basis and objectives of Phase 3 soil sampling for Go-Backs, Trenches and Soil Vapor Locations
- **Section 2 - Field Sampling and Analytical Methods** – Provides details regarding field sampling procedures and laboratory analytical methods
- **Section 3 – Go-Backs, Trenches and Soil Vapor Location Phase 3 Soil Sample Analytical Results** – Provides a summary of detected analytical results for each chemical; the appendices provide the overall results
- **Section 4 - Data Usability Assessment** – Discusses the results of the data review and validation processes
- **Section 5 – References** – Identifies the documents used in this report

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Section 2

Field Sampling and Analytical Methods

One hundred and fourteen soil samples were collected from seventy-six Phase 3 Go-Back locations; 57 soil samples were collected from 19 Phase 3 Trenches; and 70 soil samples were collected from 56 Soil Vapor Locations. Go-Back samples were collected between January 13 and June 18, 2014; Trench samples were collected between May 19 and June 4, 2014; and Soil Vapor Location soil samples were collected between May 12 and June 12, 2014.

The depths of the Phase 3 soil borings completed during the Go-Back sampling ranged from 0.3 ft-bgs and 10 ft-bgs, with a few locations reaching total depths greater than 10 ft-bgs. During the trenching sample event, depths ranged from 2.8 ft-bgs to 15.5 ft-bgs. Soil Vapor soil samples were only collected when shallow refusal was encountered or when soil appeared stained, altered, had odor, etc. These location depths ranged from 1.25 ft-bgs to 21 ft-bgs. Sample locations and depths from Go-Backs, Trenches and Soil Vapor Locations for Phase 3 are shown on Figures 2-1, 2-2 and 2-3 respectively. Appendices E and G also provide the specific boring log for each sample location.

Tables 2-1, 2-2 and 2-3 include the data gap rationale for sampling at each Go-Back, Trench and Soil Vapor location, along with the location description, sample numbers, sample type, date of sample collection, depth of boring, analyses sampled for, description of any fill materials encountered, and reasons for not sampling some of the locations proposed in the Data Gap Analysis TMs (CDM Smith 2012b and 2013). As discussed in previous data reports, sampling of test pit and trench locations in all subareas had been deferred until this sample event. Samples proposed within cultural or ecological sensitive areas (ESA) may not have been collected. If needed for remediation, ESA sampling would take place during the soil remediation phase of the project and under the supervision of the cultural/biological monitors. Some proposed sample locations were outside of the Area IV boundary on neighboring property and were not sampled because land owners did not grant access.

The Chemical Data Summary Report will provide additional discussion on how deferred sample locations will be addressed.

All soil sampling equipment (described in Sections 2.1 and 2.2) that came into contact with sample materials was decontaminated prior to sample collection in accordance with SSFL SOP 12 (Field Equipment Decontamination) of the Master FSP (CDM Smith 2012a). All samples, for both surface and subsurface soil, were screened for radioactivity using a Micro R Survey Meter (for gamma radiation) and a Pancake Frisker Detector (for alpha and beta radiation), followed by screening with a photoionization detector (PID) as directed in SSFL SOP 7 (Field Measurement of Residual Radiation). For each sample collected, the site geologist also completed a field sample data sheet (FSDS) in accordance with SSFL SOP 8 (Field Data Collection Documents, Content and Control) and the completed form was reviewed for correctness in the field by the field sampler and by the sample coordinator during sample processing. A boring log was created in accordance with SSFL SOP 9 (Lithologic Logging) of the Master FSP (CDM Smith 2012a) for each location and reviewed by a state certified Professional Geologist. The FSDS sheets and associated boring logs are presented in Appendix E.

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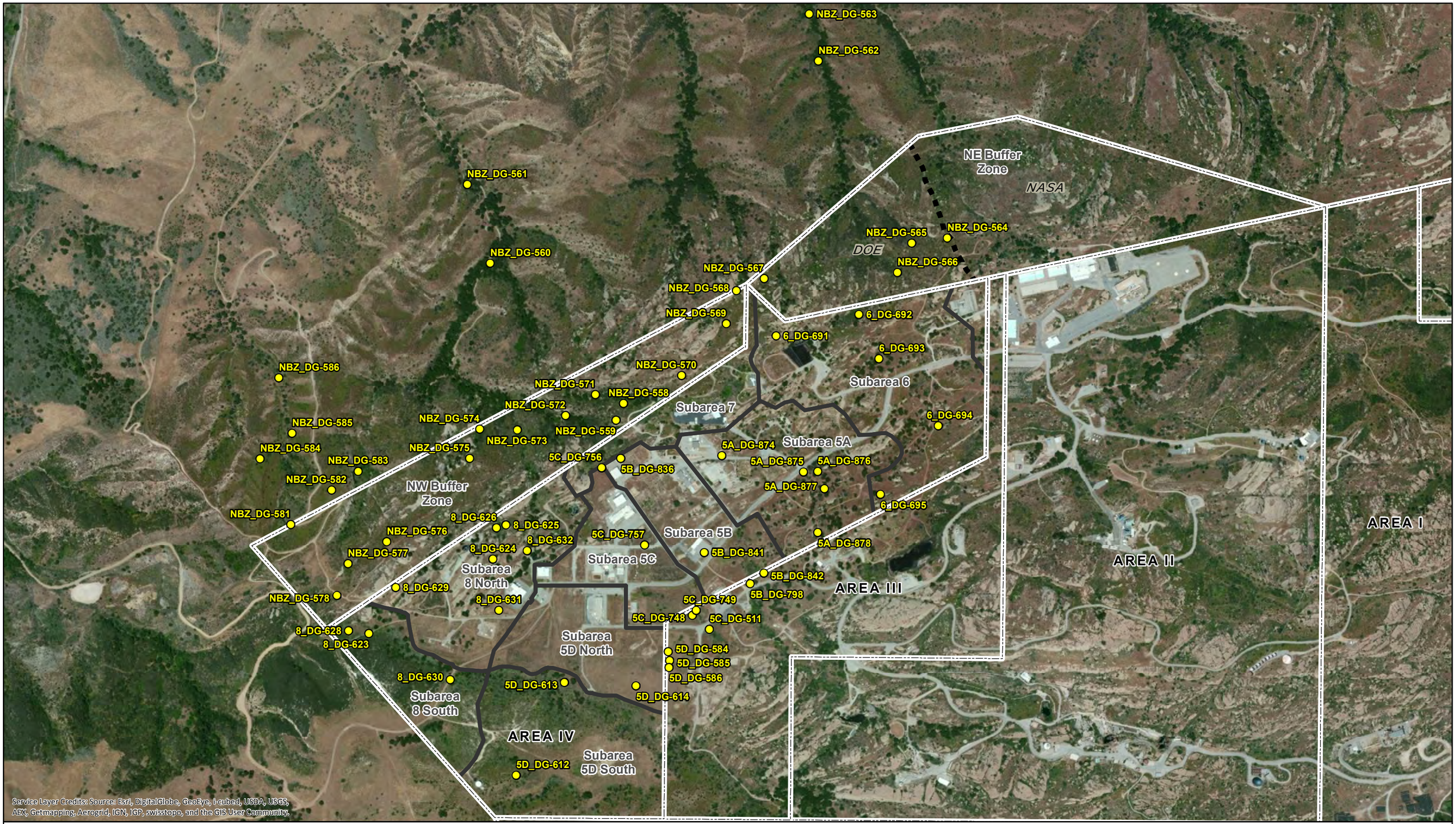

Legend

- Sample Location
- Site Area
- Area IV Subarea
- NE Buffer Zone Cleanup Responsibility

Go-Back Sample Locations

0 400 800 1,600 Feet

Santa Susana Field Laboratory
Ventura County, California
Figure 2-1

CDM Smith

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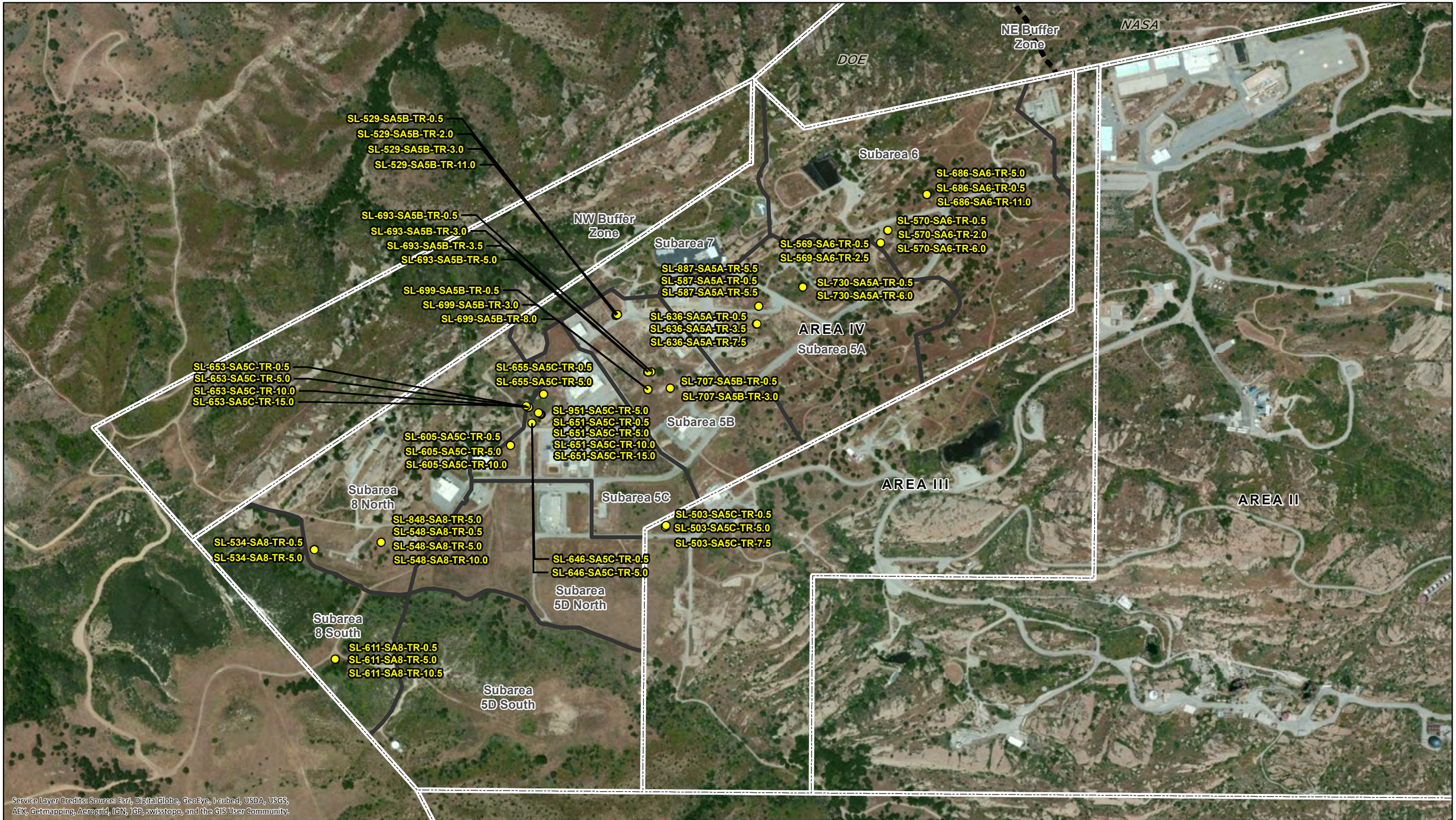

Legend

- Sample Location
- Site Area
- Area IV Subarea
- NE Buffer Zone Cleanup Responsibility

Trench Sample Locations

0 300 600 1,200 Feet

Santa Susana Field Laboratory
Ventura County, California
Figure 2-2

CDM Smith

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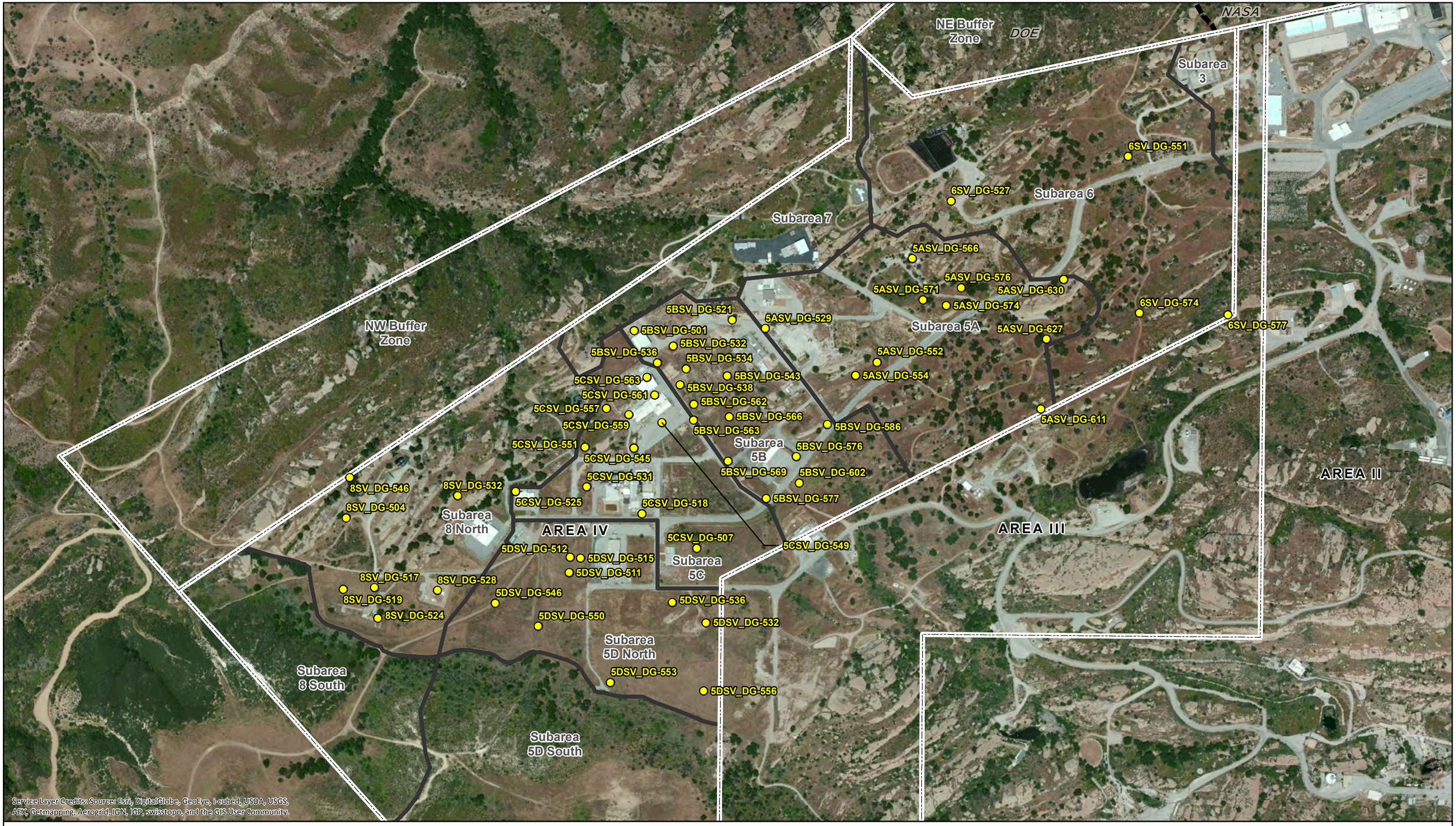

Soil Vapor Locations

Legend

- Sample Location
- Site Area
- Area IV Subarea
- NE Buffer Zone Cleanup Responsibility

0 250 500 1,000 Feet

Santa Susana Field Laboratory
Ventura County, California
Figure 2-3

CDM Smith

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Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
Subarea 5B								
5B_DG-798	Drainage South of Area III/ IV Boundary	Stepout to delineate down drainage extent of PAH, PCB, dioxins, and metals impacts from sample SL-284-SA5B.	2.3	None indicated.	5/7/2014	Surface	FDG-SL-798-SA5B-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
5B_DG-836	B4013 Footprint	One of two locations to evaluate depth to bedrock in area around B4013. Stepdown at 5B_DG-511 since previous sample did not contact bedrock and had exceedances in deepest sample at 10 feet bgs.	19.8	0-16.0 ft bgs: fill described as igneous/metamorphic gravel, other rock clasts and wood. Refusal on sandstone bedrock.	5/13/2014	Subsurface	FDG-SL-836-SA5B-SB-15.0-16.0	Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					5/13/2014	Subsurface	FDG-SL-836-SA5B-SB-19.0-20.0	Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
5B_DG-837	B4013 Footprint	One of two locations to evaluate depth to bedrock in area around B4013. Stepdown at SL-295-SA5B since previous sample did not contact bedrock and had exceedances in deepest sample at 10 feet bgs.	12.3	0-11.6 ft bgs: fill described as various gravel clasts. Refusal on sandstone bedrock	Location not sampled due to shallow refusal.			
5B_DG-838	B4006 Footprint	Targets former features (18-inch diameter tubes) removed during demolition of B4006 and stained soil encountered. Bedrock anticipated >20 feet bgs (excavation extended to 20 feet bgs during feature removal).	7.7	0-3.0 ft bgs: fill described as igneous/metamorphic gravel and concrete. 3.0-5.5 ft bgs: fill described as siltstone gravel. Refusal on bedrock.	5/31/2013	Surface	SL-838-SA5A-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, TPH-EFH EPA 8015, pH EPA 9045
					1/13/2014	Surface	SL-838-SA5B-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					1/13/2014	Subsurface	SL-838-SA5B-SB-4.0-5.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
5B_DG-839	B4006 Footprint	Targets former features (18-inch and 48-inch diameter tubes) removed during demolition of B4006 and stained soil encountered. Bedrock anticipated >20 feet bgs (excavation extended to 20 feet bgs during feature removal).	16.6	0-16.6 ft bgs: fill described as igneous/metamorphic and siltstone gravel. Refusal on bedrock.	1/14/2014	Surface	SL-839-SA5B-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					1/14/2014	Subsurface	SL-839-SA5B-SB-4.0-5.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					1/14/2014	Subsurface	SL-839-SA5B-SB-9.0-10.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					1/14/2014	Subsurface	SL-839-SA5B-SB-15.5-16.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015

Table 2-1
Soil Samples Designated to be Collected for Go-Backs - Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
5B_DG-840	West of B4006	Targets former dry well removed during demolition of B4006. Bedrock anticipated <10 feet bgs.	8	0-4.0 ft bgs: fill described as igneous/metamorphic and siltstone gravel. 4.0-8.0 ft bgs: fill described as asphalt clasts. Refusal on bedrock.	1/13/2014	Surface	SL-840-SA5B-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					1/13/2014	Surface	SL-840-SA5B-SB-4.0-5.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					1/13/2014	Subsurface	SL-840-SA5B-SB-7.0-8.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
5B_DG-841	B4011 Footprint	Targets stained soil encountered during demolition of B4011. Bedrock anticipated <10 feet bgs.	10.2	0-10 ft bgs: fill described as various clasts and clay pockets and clean fill. Shale/mudstone at bottom. Refusal on fill.	5/14/2014	Surface	FDG-SL-841-SA5B-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					5/14/2014	Subsurface	FDG-SL-841-SA5B-SB-4.0-5.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					5/14/2014	Subsurface	FDG-SL-841-SA5B-SB-9.0-10.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
5B_DG-842	South of 17th St. Pond Clearly Contaminated Area	Characterizes area downslope of samples with results above LUT values. Locate drainage feature (e.g. rill, topographic low, etc.) and map with GPS prior to collection of sample. Bedrock anticipated <10 feet bgs.	4.5	None Indicated. Refusal on sandstone bedrock.	5/14/2014	Surface	FDG-SL-842-SA5B-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					5/14/2014	Subsurface	FDG-SL-842-SA5B-SB-4.0-5.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
5B_DG-843	B4816 Footprint	Targets stained soil encountered during demolition of B4816. Bedrock anticipated <10 feet bgs.	8.2	0-6.0 ft bgs: fill described as igneous/metamorphic and siltstone gravel and red brick. Refusal on bedrock.	1/14/2014	Surface	SL-843-SA5B-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					1/14/2014	Subsurface	SL-843-SA5B-SB-4.0-5.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					1/14/2014	Subsurface	SL-843-SA5B-SB-7.0-8.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
Subarea 5C								
5C_DG-511	Drainage Southeast of Potential Fill Area East of B4015	Location targets drainage southeast of B4015 field in Area III just before confluence with STL-IV drainage.	3	None Indicated.	5/8/2014	Surface	FDG-SL-511-SA5C-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860, pH EPA 9045
					5/8/2014	Subsurface	FDG-SL-511-SA5C-SB-2.0-3.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860, pH EPA 9045
5C_DG-748	Drainage Southeast of B4015 Field	Location targets southeast portion of the drainage that runs through the B4015 field; specifically characterizes area down drainage from detects and prior to confluence with the drainage east of B4015 field.	4.5	None Indicated. Refusal on bedrock.	5/12/2014	Surface	FDG-SL-748-SA5C-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860, pH EPA 9045
					5/12/2014	Subsurface	FDG-SL-748-SA5C-SB-4.0-5.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860, pH EPA 9045
5C_DG-749	Drainage Southeast of B4015 Field	Location targets southern portion of the drainage east of B4015 field; specifically characterizes area down drainage from detects and prior to confluence with the drainage that runs through B4015 field.	2.5	None Indicated.	5/8/2014	Surface	FDG-SL-749-SA5C-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860, pH EPA 9045
					5/8/2014	Surface Duplicate	FDG-SL-1049-SA5C-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860, pH EPA 9045
5C_DG-756	NE of B4059	Stepdown at SL-001-SA5C to evaluate depth of impacts and bedrock. Previous sample did not contact bedrock and had exceedances in deepest sample collected at 10 feet bgs.	16.6	0-2 ft bgs: fill described as silty sand. 2.0-5.2 ft bgs: fill described as sand with silt. 5.2-13.8 ft bgs: fill described as clayey sand. Refusal on bedrock.	5/13/2014	Subsurface	FDG-SL-756-SA5C-SB-15.0-16.0	Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860, pH EPA 9045
5C_DG-757	South of B4066	Location targets sanitary sewer pipeline that runs along the north side of F Street. Bedrock anticipated <10 feet bgs.	10.1	0-9 ft bgs: fill described as various rock clasts, igneous/metamorphic gravel, clay pockets. Refusal on sandstone bedrock.	5/14/2014	Surface	FDG-SL-757-SA5C-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860, pH EPA 9045
					5/14/2014	Subsurface	FDG-SL-757-SA5C-SB-4.0-5.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860, pH EPA 9045
					5/14/2014	Subsurface	FDG-SL-757-SA5C-SB-8.0-9.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860, pH EPA 9045

Table 2-1
Soil Samples Designated to be Collected for Go-Backs - Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
Subarea 5A								
5A_DG-874	South of Building 4027	Location targets water conveyance line and open storage identified in EPA TM and present in the 1960 aerial. Bedrock anticipated >10 feet bgs (adjacent samples did not encounter bedrock).	13.5	100% fill from ground surface to 11.5 ft - igneous/metamorphic rock fragments and gravel. Most likely native soil/ bedrock sand from 11.5 ft to 13.5 ft.	5/20/2014	Surface	FDG2-SL-874-SA5A-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015
					5/20/2014	Subsurface	FDG2-SL-874-SA5A-SB-4.0-5.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					5/20/2014	Subsurface Duplicate	FDG2-SL-1174-SA5A-SB-4.0-5.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					5/20/2014	Subsurface	FDG2-SL-874-SA5A-SB-12.0-13.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
5A_DG-875	East of Open Storage Area Along G Street	Location targets intersection of the sanitary sewer pipelines that run along the south side of G Street and the west side of 12th Street and natural gas pipeline that runs along the south side of G Street. Bedrock anticipated ~10 feet bgs.	2.8	0-0.5 ft bgs: fill described as foreign rock fragments. Refusal on bedrock.	6/16/2014	Surface	FDG2-SL-875-SA5A-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015
					6/16/2014	Subsurface	FDG2-SL-875-SA5A-SB-2.0-3.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, 1,4 Dioxane EPA 8260 SIM, TPH-GRO EPA 8015, VOC EPA 8260
					6/16/2014	Subsurface Duplicate	FDG2-SL-1175-SA5A-SB-2.0-3.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, 1,4 Dioxane EPA 8260 SIM, TPH-GRO EPA 8015, VOC EPA 8260
5A_DG-876	East of Open Storage Area Along G Street	Stepdown at 5A_DG-822 to evaluate depth of impacts. Analyze phthalates (EPA Method 8270 SIM), dioxins, and TPH based on LUT exceedances in the surface sample and in surrounding samples, and re-analyze surface sample for phthalates (potential laboratory contaminant) and TPH with silica gel cleanup to evaluate the potential inclusion of organic-derived hydrocarbons in the original result. Bedrock anticipated ~7 feet bgs. Collect and analyze samples at 5-foot intervals to bedrock beginning at 5 feet bgs.	4.5	None indicated. Refusal on bedrock.	6/16/2014	Surface	FDG2-SL-876-SA5A-SB-0.0-0.5	PAH EPA 8270 SIM, TPH-EFH EPA 8015
					6/16/2014	Subsurface	FDG2-SL-876-SA5A-SB-4.0-5.0	Dioxins EPA 1613, PAH EPA 8270 SIM, TPH-EFH EPA 8015, TPH-GRO EPA 8015

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Soil Samples Designated to be Collected for Go-Backs - Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
5A_DG-877	West of SE Drum Yard	Stepdown at 5A_DG-825 to evaluate depth of impacts. Analyze phthalates (EPA Method 8270 SIM), dioxins, and TPH based on LUT exceedances in the surface sample and in surrounding samples, and re-analyze surface sample for phthalates (potential laboratory contaminant) and TPH with silica gel cleanup to evaluate the potential inclusion of organic-derived hydrocarbons in the original result. Bedrock anticipated ~15 feet bgs. Collect and analyze samples at 5-foot intervals to bedrock beginning at 5 feet bgs.	3.2	0-0.5 ft bgs: fill described as trace foreign rock fragments. Refusal on bedrock.	6/16/2014	Surface	FDG2-SL-877-SA5A-SB-0.0-0.5	PAH EPA 8270 SIM, TPH-EFH EPA 8015
					6/16/2014	Subsurface	FDG2-SL-877-SA5A-SB-3.0-4.0	Dioxins EPA 1613, PAH EPA 8270 SIM, TPH-EFH EPA 8015, TPH-GRO EPA 8015
5A_DG-878	East of Clearly Contaminated Area (Eastern Hummocky Area)	Same as 5D_DG-612	4.6	0-3.6 ft bgs: fill described as 50% wood. Refusal on bedrock.	6/11/2014	Surface	FDG2-SL-878-SA5A-SB-0.0-0.5	PCBs/PCTs EPA 8082, TPH-EFH EPA 8015
					6/11/2014	Subsurface	FDG2-SL-878-SA5A-SB-4.0-5.0	Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045, TPH-GRO EPA 8015

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Soil Samples Designated to be Collected for Go-Backs - Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
Subarea 5D								
5D_DG-584	East of B4353	Targets drainage identified in the EPA TM. Locate drainage feature (e.g. rill, topographic low, etc.) and map with GPS prior to collection of samples. Also characterizes area downslope of the B4353 Leach Field and serves as a stepout for dioxins, PAHs, TPH, pesticides, and silver. Bedrock anticipated <10 feet bgs.	6	At sample depth 0.0 ft to 0.5 ft, 100% fill - non-native rock fragments. At sample depth 4 ft to 5 ft, no fill indicated.	5/21/2014	Surface	FDG2-SL-584-SA5D-SB-0.0-0.5	Dioxins EPA 1613, Formaldehyde EPA 8315, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, TPH-EFH EPA 8015, pH EPA 9045
					5/21/2014	Surface	FDG2-SL-584-SA5D-SB-4.0-5.0	Dioxins EPA 1613, Formaldehyde EPA 8315, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
5D_DG-585	Southeast of B4353	Targets one of the two drainages southeast of B4353. Locate drainage feature (e.g. rill, topographic low, etc.) and map with GPS prior to collection of samples. Also serves as a stepout for dioxins, PAHs, TPH, pesticides, formaldehyde, cadmium, mercury, and silver to the northwest. Bedrock anticipated <10 feet bgs.	5.1	At sample depth 0.0 ft to 0.5 ft, 100% fill - non-native rock fragments. At sample depth 4 ft to 5 ft, no fill indicated.	5/21/2014	Surface	FDG2-SL-585-SA5D-SB-0.0-0.5	Dioxins EPA 1613, Formaldehyde EPA 8315, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, TPH-EFH EPA 8015, pH EPA 9045
					5/21/2014	Surface Duplicate	FDG2-SL-885-SA5D-SB-0.0-0.5	Dioxins EPA 1613, Formaldehyde EPA 8315, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					5/21/2014	Subsurface	FDG2-SL-585-SA5D-SB-4.0-5.0	Dioxins EPA 1613, Formaldehyde EPA 8315, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, TPH-EFH EPA 8015, pH EPA 9045
5D_DG-586	Southeast of B4353	Targets one of the two drainages southeast of B4353. Locate drainage feature (e.g. rill, topographic low, etc.) and map with GPS prior to collection of samples. Also serves as a stepout for dioxins, PAHs, and pesticides to the northwest. Bedrock anticipated <10 feet bgs.	3	At sample depth 0.0 ft to 0.5 ft, 100% fill - non-native rock fragments. At sample depth 2 ft to 3 ft, no fill indicated.	5/21/2014	Surface	FDG2-SL-586-SA5D-SB-0.0-0.5	Dioxins EPA 1613, Formaldehyde EPA 8315, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, TPH-EFH EPA 8015, pH EPA 9045
					5/21/2014	Subsurface	FDG2-SL-586-SA5D-SB-2.0-3.0	Dioxins EPA 1613, Formaldehyde EPA 8315, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
5D_DG-610	West of B4701 (Water Tank)	Stepout for dioxins, PAHs, PCBs, herbicides, and pesticides detected above LUT values in samples collected from locations around the Water Tank. Target surface water flow pathway, if present. Bedrock anticipated <10 feet bgs.	Location not sampled due to location on adjacent property. Access was not granted by land owners to perform sampling.					
5D_DG-611	Southwest of B4701 (Water Tank)	Same as 5D_DG-610.						

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
5D_DG-612	Northeast of B4701 (Water Tank)	One of 37 locations within Area IV and NBZ for TPH re-analysis to evaluate the potential inclusion of organic-derived hydrocarbons in the original result. The locations selected are generally outside of operational areas and have sample results that exceed the LUT values only for TPH without using silica gel cleanup prior to analysis. Samples will undergo silica gel cleanup prior to analysis to remove most of the polar biogenic organics. PAHs, PCBs, and metals are included to evaluate presence of other toxic constituents (excluded if previously analyzed at location and specific sample depth).	0.5	0-0.5 ft bgs: fill described as rock fragments.	6/10/2014	Surface	FDG2-SL-612-SA5D-SB-0.0-0.5	TPH-EFH EPA 8015
5D_DG-613	Northeastern Portion of Hillslope	Same as 5D_DG-612	0.5	0-0.5 ft bgs: fill described as disturbed soil.	6/10/2014	Surface	FDG2-SL-613-SA5D-SB-0.0-0.5	TPH-EFH EPA 8015
5D_DG-614	South of B4353	Same as 5D_DG-612	0.5	0-0.5 ft bgs: fill described as disturbed soil.	6/10/2014	Surface	FDG2-SL-614-SA5D-SB-0.0-0.5	TPH-EFH EPA 8015
Subarea 6								
6_DG-691	East of B4686	Same as 5D_DG-612	0.5	None indicated.	6/6/2014	Surface	FDG2-SL-691-SA6-SB-0.0-0.5	TPH-EFH EPA 8015
6_DG-692	Northeast of SRE Pond	Same as 5D_DG-612	0.5	None indicated.	6/6/2014	Surface	FDG2-SL-692-SA6-SB-0.0-0.5	TPH-EFH EPA 8015
6_DG-693	West of ESG Storage Yard	Same as 5D_DG-612	0.5	None indicated.	6/6/2014	Surface	FDG2-SL-693-SA6-SB-0.0-0.5	TPH-EFH EPA 8015
6_DG-694	Northeast Portion of Subarea 6 South	Same as 5D_DG-612	0.5	0-0.5ft bgs: fill described as disturbed soil.	6/11/2014	Surface	FDG2-SL-694-SA6-SB-0.0-0.5	TPH-EFH EPA 8015
6_DG-695	Southwest Portion of Subarea 6 South	Same as 5D_DG-612	0.5	0-0.5ft bgs: fill described as slightly disturbed soil.	6/11/2014	Surface	FDG2-SL-695-SA6-SB-0.0-0.5	TPH-EFH EPA 8015

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Soil Samples Designated to be Collected for Go-Backs - Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
Subarea 8								
8_DG-617	Western Portion of Hillslope	Targets mineralized area southwest of SL-005-SA8S and SL-007-SA8S to provide additional data to evaluate the potential that strontium detections above screening levels on the Subarea 8 Hillslope are related to the mineralization of geologic feature and are naturally occurring (e.g., associated as a trace element in the calcium carbonate). Location will be based on field observation of mineralization. Also serves as a stepout for hexavalent chromium at SL-007-SA8S. Samples will be analyzed for metals only, including hexavalent chromium. Bedrock anticipated <10 feet bgs.	Location not sampled due to location on adjacent property. Access was not granted by land owners to perform sampling.					
8_DG-618	Southern Portion of Hillslope	Targets mineralized area southwest of SL-001-SA8S to provide additional data to evaluate the potential that strontium detections above screening levels on the Subarea 8 Hillslope are related to the mineralization of geologic feature and are naturally occurring (e.g., associated as a trace element in the calcium carbonate). Location will be based on field observation of mineralization. Samples will be analyzed for metals, including hexavalent chromium. Bedrock anticipated <10 feet bgs.	Location not sampled due to location on adjacent property. Access was not granted by land owners to perform sampling.					
8_DG-619	Western Portion of Hillslope	Locations assess potential impacts from aerial dispersion related to burning and treatment activities at the former FSDF ponds. Located southwest of FSDF in the periodic 'Santa Ana' wind direction. Two locations (e.g., 8_DG-619 and 8_DG-621) target drainages to evaluate the potential for subsequent surface water transport of aerially deposited contaminants. Bedrock depth unknown. At 8_DG-620 and 8_DG-622, collect deepest sample targeting soil just above bedrock.						
8_DG-620	Western Portion of Hillslope							
8_DG-621	Western Portion of Hillslope							
8_DG-622	Western Portion of Hillslope							

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
8_DG-623	Northwestern Portion of Hillslope	Stepdown at 8_DG-601 to evaluate depth of impacts. Analyze for TPH based on LUT exceedances in surface sample and sample collected at 5 feet bgs (deeper samples were not analyzed), and re-analyze surface sample and 5-foot sample for TPH with silica gel cleanup to evaluate the potential inclusion of organic-derived hydrocarbons in the original result. Bedrock anticipated ~20 feet bgs. Collect samples at 5-foot intervals to bedrock.	20	At sample depths 0.5 and 5.0, 100% fill - possibly road material (gravel). At sample depths 10.0, 15.0, and 20.0, no fill indicated.	5/21/2014	Surface	FDG2-SL-623-SA8-SB-0.0-0.5	TPH-EFH EPA 8015
					5/21/2014	Subsurface	FDG2-SL-623-SA8-SB-4.0-5.0	TPH-EFH EPA 8015, TPH-GRO EPA 8015
					5/21/2014	Subsurface	FDG2-SL-623-SA8-SB-9.0-10.0	Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					5/21/2014	Subsurface	FDG2-SL-623-SA8-SB-14.0-15.0	Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					5/21/2014	Subsurface	FDG2-SL-623-SA8-SB-19.0-20.0	Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
8_DG-624	Northwest of B4009	Location assesses potential air dispersion impacts related to burning activities at the B4100 Trench and is located northwest of the B4100 Trench in the prevailing wind direction. Location is one of three locations proposed that will assess this migration pathway (the others include 8_DG-625 and 8_DG-626). Additional sampling to address this pathway was also performed during Phase 3 sampling in Subarea 8 and the Northern Buffer Zone Subarea. Bedrock anticipated <10 feet bgs.	1.6	None indicated.	6/5/2014	Surface	FDG2-SL-624-SA8-SB-0.0-0.5	TPH-EFH EPA 8015
8_DG-625	West of the B4056 Landfill	Location assesses potential air dispersion impacts related to burning activities at the B4100 Trench and is located northwest of the B4100 Trench in the prevailing wind direction. Location is one of three locations proposed that will assess this migration pathway, the others include 8_DG-624 and 8_DG-626. Additional sampling to address this pathway was also performed during Phase 3 sampling in Subarea 8 and the Northern Buffer Zone Subarea. Bedrock anticipated <10 feet bgs.	2	None indicated. Refusal on bedrock.	6/5/2014	Surface	FDG2-SL-625-SA8-SB-0.0-0.5	TPH-EFH EPA 8015

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Soil Samples Designated to be Collected for Go-Backs - Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
8_DG-626	West of the B4056 Landfill	Location assesses potential air dispersion impacts related to burning activities at the B4100 Trench and is located northwest of the B4100 Trench in the prevailing wind direction. Location is one of three locations proposed that will assess this migration pathway, the others include 8_DG-624 and 8_DG-625. Additional sampling to address this pathway was also performed during Phase 3 sampling in Subarea 8 and the Northern Buffer Zone Subarea. Bedrock anticipated <10 feet bgs.	5.4	None indicated. Refusal on bedrock.	6/6/2014	Surface	FDG2-SL-626-SA8-SB-0.0-0.5	TPH-EFH EPA 8015
					6/6/2014	Subsurface	FDG2-SL-626-SA8-SB-4.0-5.0	TPH-EFH EPA 8015, TPH-GRO EPA 8015
8_DG-628	Northwestern Portion of Hillslope	Same as 5D_DG-612	14.8	None indicated. Refusal on bedrock.	5/22/2014	Surface	FDG2-SL-628-SA8-SB-0.0-0.5	TPH-EFH EPA 8015
					5/22/2014	Subsurface	FDG2-SL-628-SA8-SB-4.0-5.0	TPH-EFH EPA 8015, TPH-GRO EPA 8015
					5/22/2014	Subsurface	FDG2-SL-628-SA8-SB-9.0-10.0	TPH-GRO EPA 8015, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					5/22/2014	Subsurface	FDG2-SL-628-SA8-SB-14.0-15.0	Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
8_DG-629	West of FSDF	Same as 5D_DG-612	1.3	None indicated. Refusal on bedrock.	6/11/2014	Surface	FDG2-SL-629-SA8-SB-0.0-0.5	TPH-EFH EPA 8015
8_DG-630	Eastern Portion of Hillslope	Same as 5D_DG-612	7.5	0-4.0 ft bgs: fill described as 100% rock fragments.	6/10/2014	Surface	FDG2-SL-630-SA8-SB-0.0-0.5	TPH-EFH EPA 8015
					6/10/2014	Subsurface	FDG2-SL-630-SA8-SB-4.0-5.0	TPH-EFH EPA 8015, TPH-GRO EPA 8015
					6/10/2014	Subsurface Duplicate	FDG2-SL-930-SA8-SB-4.0-5.0	TPH-EFH EPA 8015, TPH-GRO EPA 8015
					6/10/2014	Subsurface	FDG2-SL-630-SA8-SB-7.0-8.0	TPH-EFH EPA 8015, TPH-GRO EPA 8015
8_DG-631	Southwest of B4009	Same as 5D_DG-612	7.6	None indicated. Refusal on bedrock.	6/5/2014	Surface	FDG2-SL-631-SA8-SB-0.0-0.5	TPH-EFH EPA 8015
					6/5/2014	Subsurface	FDG2-SL-631-SA8-SB-4.5-5.0	TPH-EFH EPA 8015, TPH-GRO EPA 8015
					6/5/2014	Subsurface	FDG2-SL-631-SA8-SB-7.0-8.0	Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, TPH-GRO EPA 8015, pH EPA 9045
8_DG-632	Southwest of B4056 Landfill	Same as 5D_DG-612	0.5	0-0.5 ft bgs: fill described as 50%-100% valley fill.	6/9/2014	Surface	FDG2-SL-632-SA8-SB-0.0-0.5	TPH-EFH EPA 8015

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
Northern Buffer Zone								
NBZ_DG-558	Eastern Portion of NBZ-NW	Stepout for exceedances of TPH and herbicides at SL-021-NBZ and NBZ_DG-525, and dioxins, PAHs, and pesticides at SL-023-NBZ. PCBs and metals are initially placed on hold, with analysis occurring if TPH exceeds the LUT value to evaluate toxic constituents. Bedrock anticipated <5 feet bgs.	1.1	None indicated. Refusal on bedrock.	6/9/2014	Surface	FDG2-SL-558-NBZ-SB-0.0-0.5	Dioxins EPA 1613, Herbicides EPA 8151, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, TPH-EFH EPA 8015, pH EPA 9045
					6/9/2014	Surface Duplicate	FDG2-SL-858-NBZ-SB-0.0-0.5	Dioxins EPA 1613, Herbicides EPA 8151, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, TPH-EFH EPA 8015, pH EPA 9045
NBZ_DG-559	Eastern Portion of NBZ-NW	Stepout for exceedances of TPH and dioxins at SL-018-NBZ, TPH at U7BS0006, TPH and herbicides at NBZ_DG-556, Se and Ag at SL-113-SA7, TPH at 7_DG-553, and TPH and herbicides at SL-021-NBZ. PAHs, PCBs, and metals are initially placed on hold, with analysis occurring if TPH exceeds the LUT value to evaluate toxic constituents. Bedrock anticipated <5 feet bgs.	0.5	None indicated. Refusal on bedrock.	6/9/2014	Surface	FDG2-SL-559-NBZ-SB-0.0-0.5	Dioxins EPA 1613, Herbicides EPA 8151, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
NBZ_DG-560	North of NBZ-NW	Stepout downdrainage from exceedance of PAHs at NBZ_DG-529 and evaluates exceedance of phthalates, acetone, and methylene chloride at BB-03-005. Samples on hold for TPH, PCBs, and metals pending the TPH re-analysis results using silica gel cleanup (EPA Method 3630) being performed at locations within Area IV and NBZ. Bedrock anticipated <5 feet bgs.	0.7	None indicated. Refusal on large cobble.	6/11/2014	Surface	FDG2-SL-560-NBZ-SB-0.0-0.5	Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
NBZ_DG-561	North of NBZ-NW	Same as NBZ_DG-560.	0.6	None indicated.	5/23/2014	Surface	FDG2-SL-561-NBZ-SB-0.0-0.5	Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015
NBZ_DG-562	North of NBZ-NE	Stepout downdrainage from exceedances of dioxins and pesticides at NBZ_DG-540. Samples on hold for TPH, PAHs, PCBs, and metals pending the TPH re-analysis results using silica gel cleanup (EPA Method 3630) being performed at locations within Area IV and NBZ. Bedrock anticipated <5 feet bgs.	1.5	None indicated. Refusal on bedrock.	6/12/2014	Surface	FDG2-SL-562-NBZ-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, pH EPA 9045, TPH-EFH EPA 8015

Table 2-1
Soil Samples Designated to be Collected for Go-Backs - Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
NBZ_DG-563	North of NBZ-NE	Same as NBZ_DG-562	0.5	None indicated. Refusal on bedrock.	6/12/2014	Surface	FDG2-SL-563-NBZ-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, TPH-EFH EPA 8015, pH EPA 9045
NBZ_DG-564	Western Portion of NBZ-NE	Same as 5D_DG-612	0.5	None indicated.	6/10/2014	Surface	FDG2-SL-564-NBZ-SB-0.0-0.5	Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
NBZ_DG-565	Western Portion of NBZ-NE	Same as 5D_DG-612	0.5	None indicated.	6/10/2014	Surface	FDG2-SL-565-NBZ-SB-0.0-0.5	Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
NBZ_DG-566	Western Portion of NBZ-NE	Same as 5D_DG-612	0.5	None indicated.	6/10/2014	Surface	FDG2-SL-566-NBZ-SB-0.0-0.5	Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
NBZ_DG-567	Northwestern Portion of NBZ-NE	Same as 5D_DG-612	0.5	None indicated.	6/17/2014	Surface	FDG2-SL-567-NBZ-SB-0.0-0.5	Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
NBZ_DG-568	North of NBZ-NW	Same as 5D_DG-612	0.5	None indicated.	6/17/2014	Surface	FDG2-SL-568-NBZ-SB-0.0-0.5	Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
NBZ_DG-569	Northeastern Portion of NBZ-NW	Same as 5D_DG-612	0.5	None indicated.	6/12/2014	Surface	FDG2-SL-569-NBZ-SB-0.0-0.5	Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
NBZ_DG-570	Eastern Portion of NBZ-NW	Same as 5D_DG-612	0.5	None indicated.	6/12/2014	Surface	FDG2-SL-570-NBZ-SB-0.0-0.5	Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
NBZ_DG-571	Central Portion of NBZ-NW	Same as 5D_DG-612	1	None indicated. Refusal on bedrock.	6/11/2014	Surface	FDG2-SL-571-NBZ-SB-0.0-0.5	TPH-EFH EPA 8015
NBZ_DG-572	Central Portion of NBZ-NW	Same as 5D_DG-612	0.5	None indicated.	6/17/2014	Surface	FDG2-SL-572-NBZ-SB-0.0-0.5	TPH-EFH EPA 8015
NBZ_DG-573	Central Portion of NBZ-NW	Same as 5D_DG-612	0.5	None indicated.	6/18/2014	Surface	FDG2-SL-573-NBZ-SB-0.0-0.5	TPH-EFH EPA 8015
NBZ_DG-574	North of NBZ-NW	Same as 5D_DG-612	0.5	None indicated.	6/18/2014	Surface	FDG2-SL-574-NBZ-SB-0.0-0.5	Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
NBZ_DG-575	Western Portion of NBZ-NW	Same as 5D_DG-612	0.5	None indicated.	6/18/2014	Surface	FDG2-SL-575-NBZ-SB-0.0-0.5	Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
NBZ_DG-576	Western Portion of NBZ-NW	Same as 5D_DG-612	2.9	None indicated.	6/10/2014	Surface	FDG2-SL-576-NBZ-SB-0.0-0.5	PCBs/PCTs EPA 8082, TPH-EFH EPA 8015
					6/10/2014	Surface	FDG2-SL-576-NBZ-SB-2.0-3.0	PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, TPH-GRO EPA 8015
NBZ_DG-577	Southwestern Portion of NBZ-NW	Same as 5D_DG-612	0.75	None indicated. Refusal on bedrock.	6/11/2014	Surface	FDG2-SL-577-NBZ-SB-0.0-0.5	TPH-EFH EPA 8015

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
NBZ_DG-578	Southwestern Portion of NBZ-NW	Same as 5D_DG-612	2.5	None indicated. Refusal on bedrock.	5/22/2014	Surface	FDG2-SL-578-NBZ-SB-0.0-0.5	pH EPA 9045, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015
NBZ_DG-579	Southwest of NBZ-NW	Same as 5D_DG-612	Location not sampled due to location on adjacent property. Access was not granted by land owners to perform sampling.					
NBZ_DG-580	Southwest of NBZ-NW	Same as 5D_DG-612						
NBZ_DG-581	North of NBZ-NW	Same as 5D_DG-612	14	0-5 ft bgs: fill described as gravelly fill. Refusal on bedrock.	5/22/2014	Surface	FDG2-SL-581-NBZ-SB-0.0-0.5	pH EPA 9045, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, TPH-EFH EPA 8015
					5/22/2014	Subsurface	FDG2-SL-581-NBZ-SB-4.0-5.0	Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					5/22/2014	Subsurface	FDG2-SL-581-NBZ-SB-9.0-10.0	TPH-GRO EPA 8015, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015
					5/22/2014	Subsurface	FDG2-SL-581-NBZ-SB-13.0-14.0	Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
NBZ_DG-582	North of NBZ-NW	Same as 5D_DG-612	3.5	None indicated.	6/13/2014	Surface	FDG2-SL-582-NBZ-SB-0.0-0.5	PCBs/PCTs EPA 8082, TPH-EFH EPA 8015
					6/13/2014	Surface	FDG2-SL-582-NBZ-SB-3.0-3.5	PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, TPH-GRO EPA 8015
NBZ_DG-583	North of NBZ-NW	Same as 5D_DG-612	0.5	None indicated.	6/12/2014	Surface	FDG2-SL-583-NBZ-SB-0.0-0.5	PCBs/PCTs EPA 8082, TPH-EFH EPA 8015
NBZ_DG-584	North of NBZ-NW	Same as 5D_DG-612	0.5	None indicated.	6/13/2014	Surface	FDG2-SL-584-NBZ-SB-0.0-0.5	PCBs/PCTs EPA 8082, TPH-EFH EPA 8015
NBZ_DG-585	North of NBZ-NW	Same as 5D_DG-612	0.5	None indicated.	6/13/2014	Surface	FDG2-SL-585-NBZ-SB-0.0-0.5	PCBs/PCTs EPA 8082, TPH-EFH EPA 8015
NBZ_DG-586	North of NBZ-NW	Same as 5D_DG-612	0.5	0-0.5 ft bgs: fill described as igneous/metamorphic gravel and pieces of red and green colored material. No refusal.	6/13/2014	Surface	FDG2-SL-586-NBZ-SB-0.0-0.5	PCBs/PCTs EPA 8082, TPH-EFH EPA 8015

Notes & Abbreviations:

Note: The sample number for a "duplicate sample" was increased by 300 (e.g. SB-530 and SB-830)

AST = Above-ground Storage Tank
bgs = below ground surface
Cr (VI) = hexavalent chromium
EFH = extractable fuel hydrocarbon
EPA = Environmental Protection Agency
ESA = Environmentally Sensitive Area
ESADA = Empire State Atomic Development Authority
ESG = Energy Systems Group
FDG = final data gap
FSDF = Former Sodium Disposal Facility
ft = feet
GPS = Global Positioning System
GRO = gasoline range organic
HSA = Historical Site Assessment
ID = identifier
ISF = interim storage facility
ISL = interim screening level
LUT = look up table
ND = nondetect
NBZ = Northern Buffer Zone
ND = nondetect
PAH = polyaromatic hydrocarbon
PCB = polychlorinated biphenyl
PCT = polychlorinated triphenyl
PID = photoionization detector
RFI = Facility Investigation Reports
RL = reporting limit
RMHF = Radioactive Material Handling Facility
SCTI = Sodium Component Test Installation
SIM = selective ion monitoring
SNAP = Streamlined New Acquisition Process
SRE = Sodium Reactor Experiment
STL = Systems Test Laboratory
TM = technical memorandum
TPH = total petroleum hydrocarbons
TR = trench
VOC = volatile organic compound
< = less than

Table 2-2

Soil Samples Designated to be Collected for Trenches - Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
5A_DG-587	Within Building 4023 Footprint	Location targets AST with unknown contents (Unknown-AT-L9-3) and linear magnetometer anomaly; positioned within medium toned mounded material identified in EPA TM and fill of unknown origin observed in borings within B4023. Bedrock is anticipated ~10 feet bgs. Conduct adjacent test pit for linear magnetometer anomaly and adjust 5-foot sample to target feature (or sample pit as appropriate).	8	At sample depth 0.5 ft, 100% fill - asphalt, concrete, and igneous/metamorphic gravel. At sample depth 5.5 ft, no fill indicated.	5/22/2014	Test Pit-Surface	SL-587-SA5A-TR-0.5	Dioxins EPA 1613, Mercury EPA 7470, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015
					5/22/2014	Test Pit-Subsurface	SL-587-SA5A-TR-5.5	Dioxins EPA 1613, Mercury EPA 7470, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					5/22/2014	Test Pit-Subsurface Duplicate	SL-887-SA5A-TR-5.5	TPH-GRO EPA 8015, Dioxins EPA 1613, Mercury EPA 7470, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015
5A_DG-636	East of Building 4042	Location targets geophysical anomaly; also characterizes operational area. Bedrock anticipated <10 feet bgs. Conduct adjacent test pit for geophysical anomaly. Adjust 5-foot sample to target feature (or sample pit as appropriate).	8	At sample depth 0.5 ft, 100% fill - minor asphalt and disturbed soil. At sample depth 3.5 ft, 100% fill - minor asphalt, minor brick material, and disturbed soil. At sample depth 7.5 ft, no fill indicated.	5/23/2014	Test Pit-Surface	SL-636-SA5A-TR-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015
					5/23/2014	Test Pit-Subsurface	SL-636-SA5A-TR-3.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					5/23/2014	Test Pit-Subsurface	SL-636-SA5A-TR-7.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
5A_DG-730	Open Space West of Building 4453	Location targets three point magnetometer anomalies and inline with interpreted drain remnant. Bedrock anticipated <10 feet bgs. Conduct adjacent test pit for three point magnetometer anomalies and interpreted drain remnant and adjust 5-foot sample to target feature (or sample pit as appropriate).	11	At sample depth 0.5 ft, 100% fill - disturbed soil. At sample depth 6.0 ft, no fill indicated.	5/22/2014	Test Pit-Surface	SL-730-SA5A-TR-0.5	Dioxins EPA 1613, Mercury EPA 7470, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015
					5/22/2014	Test Pit-Subsurface	SL-730-SA5A-TR-6.0	Dioxins EPA 1613, Mercury EPA 7470, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015

Table 2-2
Soil Samples Designated to be Collected for Trenches - Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
5B_DG-529	South of B4012	Targets AST with unknown contents; also targets southern portion of fill and potential leach field location. Excavate exploratory trench perpendicular to leach field orientation to investigate leach field location (inspect for signs of fill, gravel, leach lines, etc.). Analyze for corrosion inhibitors due to cooling tower operations in area. Analyze at depth due to potential fill, potential leach field impacts, and soil movement/fill. Fifteen foot sample targets native soil just above bedrock; analyze for full suite plus VOCs (SIM) to evaluate potential migration pathway to groundwater.	11.75	100% fill at sample depth 0.5 ft: asphalt, plastic, concrete, gravel, clay pipe pieces. 100% fill at sample depth 2.0 ft: asphalt, metal, plastic, concrete, gravel, red concrete. 100% fill at sample depth 3.0 ft: asphalt, plastic, concrete, red concrete.	5/28/2014	Trench-Surface	SL-529-SA5B-TR-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TIC EPA 8270, TPH-EFH EPA 8015
					5/28/2014	Trench-Subsurface	SL-529-SA5B-TR-2.0	TPH-GRO EPA 8015, Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TIC EPA 8270, TPH-EFH EPA 8015
					5/28/2014	Trench-Subsurface	SL-529-SA5B-TR-3.0	TPH-GRO EPA 8015, Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TIC EPA 8270, TPH-EFH EPA 8015
					5/28/2014	Trench-Subsurface	SL-529-SA5B-TR-11.0	TPH-GRO EPA 8015, Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TIC EPA 8270, TPH-EFH EPA 8015
5B_DG-693	East of B4005/B4006 Leach Field	Excavate trench in east/west orientation to target leach line, linear geophysical anomaly, and northern terminus of above ground fuel line. Extend trench approximately 20 feet eastward to investigate the northern terminus of the fuel line (i.e., determine if the pipeline goes underground at this location and has been removed). Collect sample targeting geophysical anomaly; adjust 5 foot sample to target soil beneath anomaly if observed. Collect an additional sample at the terminus of the pipeline if subsurface piping is identified or soil staining observed.	5.5	At sample depth 0.5 ft, 100% fill - asphalt, metal, and concrete. At sample depth 3.0 ft, 100% fill - pieces of asphalt, gravel, pieces of clay pipe. At sample depth 3.5 ft, 10% fill - asphalt, metal, and concrete. At sample depth 5.0 ft, no fill indicated	5/27/2014	Trench-Surface	SL-693-SA5B-TR-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, pH EPA 9045, TPH-EFH EPA 8015
					5/28/2014	Trench-Subsurface	SL-693-SA5B-TR-3.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					5/27/2014	Trench-Subsurface	SL-693-SA5B-TR-3.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					5/27/2014	Trench-Subsurface	SL-693-SA5B-TR-5.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015

Table 2-2
Soil Samples Designated to be Collected for Trenches - Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
5B_DG-699	Open Area South of SCTL PowerPak Interconnecting Facility	Excavate test pit to investigate linear geophysical anomaly. If observed, adjust 5 foot boring sample to target soil immediately beneath the anomaly.	9.5	100% fill at sample depth 0.5 ft - small asphalt pieces on surface, gravel on surface. <5 % fill at sample depth 3.0 ft - gravel. No fill indicated at sample depth 8.0 ft.	5/28/2014	Test Pit-Surface	SL-699-SA5B-TR-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, pH EPA 9045, TPH-EFH EPA 8015
					5/28/2014	Test Pit-Subsurface	SL-699-SA5B-TR-3.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					5/28/2014	Test Pit-Subsurface	SL-699-SA5B-TR-8.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
5B_DG-707	Former aboveground tank T-735	Stepout for TPH detections to the south and dioxins/pesticides to the north; also targets fuel pipeline from T-735.	3.5	At sample depth 0.5 ft, 100% fill - concrete. At sample depth 3.0 ft, no fill indicated.	5/27/2014	Test Pit-Surface	SL-707-SA5B-TR-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, pH EPA 9045, TPH-EFH EPA 8015
					5/27/2014	Test Pit-Subsurface	SL-707-SA5B-TR-3.0	TPH-GRO EPA 8015, Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, pH EPA 9045, TPH-EFH EPA 8015
5C_DG-503	Fill area east of B4015	Complete characterization in downslope, eastern portion of fill area based on results observed in clearly contaminated fill area to the west. If fill observed, collect sample within fill and in top of native soil beneath fill to evaluate vertical migration.	9.5	100% fill at sample depths 0.5 ft and 5.0 ft- disturbed soil. No fill indicated at sample depth 7.5 ft.	5/29/2014	Trench-Surface	SL-503-SA5C-TR-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860, pH EPA 9045, TPH-EFH EPA 8015
					5/29/2014	Trench-Subsurface	SL-503-SA5C-TR-5.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					5/29/2014	Trench-Subsurface	SL-503-SA5C-TR-7.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015

Table 2-2
Soil Samples Designated to be Collected for Trenches - Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
5C_DG-605	Field east of B4100	Representative sample targeting mounded material observed in EPA aerial photo review. Analytical suites selected since detected in other portions of the area. Excavate exploratory trench and collect samples based on field observation. Conditions should be observed in the trench and sample depths should target fill and native soil immediately beneath it.	12	100% fill at sample depth 0.5 ft - metal, concrete, and gravel. 100% fill at sample depth 5.0 ft - concrete and gravel (cobbles, 4 in diameter). No fill indicated at sample depth 10.0 ft.	5/29/2014	Trench-Surface	SL-605-SA5C-TR-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860, pH EPA 9045, TPH-EFH EPA 8015
					5/29/2014	Trench-Subsurface	SL-605-SA5C-TR-5.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					5/29/2014	Trench-Subsurface	SL-605-SA5C-TR-10.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
5C_DG-646	Southern Screening Area	The geophysical survey resulted in two magnetometer anomalies that could be fill up to 12 feet. This confirmed the "loose earth fill" in historical drawings.	6.5	0-5 ft bgs: fill described as disturbed soil.	6/4/2014	Trench-Surface	SL-646-SA5C-TR-0.5	Dioxins EPA 1613, Energetics EPA 8330, Glycols EPA 8015, Herbicides EPA 8151, Hexavalent Chromium EPA 7196/7199, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860, Pesticides EPA 8081
					6/4/2014	Trench-Subsurface	SL-646-SA5C-TR-5.0	Dioxins EPA 1613, Energetics EPA 8330, Glycols EPA 8015, Herbicides EPA 8151, Hexavalent Chromium EPA 7196/7199, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860, Pesticides EPA 8081
5C_DG-651	Southern Screening Area	Excavate four trenches to evaluate vertical and lateral extent of potential fill and one of the magnetometer anomalies (5C_DG-563). Collect surface samples at each location to characterize area for potential aerial deposition from burning activities at the B100 Trench; analyze for PAHs, metals, and dioxins. Analyze all samples for the standard investigation suite (PAHs, PCBs/PCTs, metals, and TPH) and for documented chemicals used in historical Area IV operations (dioxins, Cr(VI), biphenyls, terphenyls, glycols, perchlorate, and energetics).	15.5	0-15.0 ft bgs: fill described as 100% disturbed soil.	5/30/2014	Trench-Surface	SL-651-SA5C-TR-0.5	Dioxins EPA 1613, Energetics EPA 8330, Glycols EPA 8015, Herbicides EPA 8151, Hexavalent Chromium EPA 7196/7199, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860
					5/30/2014	Trench-Subsurface	SL-651-SA5C-TR-5.0	Dioxins EPA 1613, Energetics EPA 8330, Glycols EPA 8015, Herbicides EPA 8151, Hexavalent Chromium EPA 7196/7199, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860
					5/30/2014	Trench-Subsurface Duplicate	SL-951-SA5C-TR-5.0	Dioxins EPA 1613, Energetics EPA 8330, Glycols EPA 8015, Herbicides EPA 8151, Hexavalent Chromium EPA 7196/7199, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860

Table 2-2

Soil Samples Designated to be Collected for Trenches - Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
5C_DG-651	Southern Screening Area	The geophysical survey resulted in two magnetometer anomalies that could be fill up to 12 feet. This confirmed the "loose earth fill" in historical drawings. Excavate four trenches to evaluate vertical and lateral extent of potential fill and one of the magnetometer anomalies (5C_DG-563). Collect surface samples at each location to characterize area for potential aerial deposition from burning activities at the B100 Trench; analyze for PAHs, metals, and dioxins. Analyze all samples for the standard investigation suite (PAHs, PCBs/PCTs, metals, and TPH) and for documented chemicals used in historical Area IV operations (dioxins, Cr(VI), biphenyls, terphenyls, glycols, perchlorate, and energetics).	15.5	0-15.0 ft bgs: fill described as 100% disturbed soil.	5/30/2014	Trench-Subsurface	SL-651-SA5C-TR-10.0	Dioxins EPA 1613, Energetics EPA 8330, Glycols EPA 8015, Herbicides EPA 8151, Hexavalent Chromium EPA 7196/7199, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860
					5/30/2014	Trench-Subsurface	SL-651-SA5C-TR-15.0	Dioxins EPA 1613, Energetics EPA 8330, Glycols EPA 8015, Herbicides EPA 8151, Hexavalent Chromium EPA 7196/7199, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860
5C_DG-653	Southern Screening Area		15	0-10.0 ft bgs: fill described as 100% disturbed soil.	6/2/2014	Trench-Surface	SL-653-SA5C-TR-0.5	Dioxins EPA 1613, Energetics EPA 8330, Glycols EPA 8015, Herbicides EPA 8151, Hexavalent Chromium EPA 7196/7199, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860, Pesticides EPA 8081
					6/2/2014	Trench-Subsurface	SL-653-SA5C-TR-5.0	Dioxins EPA 1613, Energetics EPA 8330, Glycols EPA 8015, Herbicides EPA 8151, Hexavalent Chromium EPA 7196/7199, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860, Pesticides EPA 8081
					6/2/2014	Trench-Subsurface	SL-653-SA5C-TR-10.0	Dioxins EPA 1613, Energetics EPA 8330, Glycols EPA 8015, Herbicides EPA 8151, Hexavalent Chromium EPA 7196/7199, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860, Pesticides EPA 8081
					6/2/2014	Trench-Subsurface	SL-653-SA5C-TR-15.0	Dioxins EPA 1613, Energetics EPA 8330, Glycols EPA 8015, Herbicides EPA 8151, Hexavalent Chromium EPA 7196/7199, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860, Pesticides EPA 8081

Table 2-2
Soil Samples Designated to be Collected for Trenches - Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
5C_DG-655	Southern Screening Area	The geophysical survey resulted in two magnetometer anomalies that could be fill up to 12 feet. This confirmed the "loose earth fill" in historical drawings. Excavate four trenches to evaluate vertical and lateral extent of potential fill and one of the magnetometer anomalies (5C_DG-563). Collect surface samples at each location to characterize area for potential aerial deposition from burning activities at the B100 Trench; analyze for PAHs, metals and dioxins. Analyze all samples for the standard investigation suite (PAHs, PCBs/PCTs, metals, and TPH) and for documented chemicals used in historical Area IV operations (dioxins, Cr(VI), biphenyls, terphenyls, glycols, perchlorate, and energetics).	8	0-5 ft bgs: fill described as 100% disturbed soil.	6/4/2014	Trench-Surface	SL-655-SA5C-TR-0.5	Dioxins EPA 1613, Energetics EPA 8330, Glycols EPA 8015, Herbicides EPA 8151, Hexavalent Chromium EPA 7196/7199, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860, Pesticides EPA 8081
					6/4/2014	Trench-Subsurface	SL-655-SA5C-TR-5.0	Dioxins EPA 1613, Energetics EPA 8330, Glycols EPA 8015, Herbicides EPA 8151, Hexavalent Chromium EPA 7196/7199, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Perchlorate Confirmation EPA 6850/6860, Pesticides EPA 8081
6_DG-569	West of Parking Lot 4513 Area	Stepout for TPH at L4BS1018 and SL-171-SA6. Conduct exploratory test pit to investigate linear terrain conductivity anomaly; if fill observed, collect sample at top of native immediately beneath fill.	2.8	At sample depth 0.5 ft, 100% fill - fragments of asphalt and clay pipe. At sample depth 2.5 ft, no fill indicated.	5/20/2014	Test Pit-Surface	SL-569-SA6-TR-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015
					5/20/2014	Test Pit-Subsurface	SL-569-SA6-TR-2.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
6_DG-570	Parking Lot 4513 Area	Stepout for TPH at L4BS1018; analyze standard suite since characterizing area for potential storage. Conduct exploratory test pit to investigate linear magnetic anomaly; if pipe or buried metal observed, collect sample in soil beneath feature.	8	At sample depth 0.5 ft, 100% fill - fragments of asphalt and disturbed soil. At sample depth 2.0 ft, 100% fill - disturbed soil. At sample depth 6.0 ft, no fill indicated.	5/20/2014	Test Pit-Surface	SL-570-SA6-TR-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015
					5/20/2014	Test Pit-Subsurface	SL-570-SA6-TR-2.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					5/20/2014	Test Pit-Subsurface	SL-570-SA6-TR-6.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015

Table 2-2
Soil Samples Designated to be Collected for Trenches - Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
6_DG-686	West of ESG Storage Yard	Location characterizes area west of ESG storage yard identified in 1988 Radiological Survey Report and targets surface water flow pathway at end of historical dirt road; also addresses potential aerial dispersion/deposition to the northwest of incinerator at B4040. Conduct exploratory test pit to investigate ground penetrating radar anomaly area; if fill with debris is present. Bedrock anticipated <2 ft.	12.5	None indicated.	5/21/2014	Test Pit-Surface	SL-686-SA6-TR-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015
					5/21/2014	Test Pit-Subsurface	SL-686-SA6-TR-5.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					5/21/2014	Test Pit-Subsurface	SL-686-SA6-TR-11.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
8_DG-534	Northwest of ESADA	Conduct exploratory test pit to investigate hummocky area identified during 2008 debris survey. Location of test pit will be based on field observation of hummocky terrain. If fill, staining, debris, or other impacts are observed, collect sample targeting top of native soil. Bedrock anticipated ~5 feet bgs. If deep soils encountered, sample and place on hold pending shallow results.	5.5	At sample depth, 0.5 ft, 100% fill - wood fragments and white, porous fragments, possibly caliche. At sample depth, 5 ft, no fill indicated.	5/19/2014	Test Pit-Surface	SL-534-SA8-TR-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015
					5/19/2014	Test Pit-Subsurface	SL-534-SA8-TR-5.0	TPH-GRO EPA 8015, Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015
8_DG-548	West of the Solar Concentrator Facility	Conduct exploratory trench to investigate topographic low spot adjacent to the debris area identified during 2008 debris survey. Also targets terrain conductivity anomaly. Fill anticipated based on previous sampling in the area and historical aerial photographs. Excavate until top of native soils encountered. Bedrock anticipated >10 feet bgs. Collect and analyze samples at 5-foot intervals to bedrock beginning at 5 feet bgs.	12.5	None indicated.	5/19/2014	Trench-Surface	SL-548-SA8-TR-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015
					5/19/2014	Trench-Subsurface	SL-548-SA8-TR-5.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					5/19/2014	Trench-Subsurface Duplicate	SL-848-SA8-TR-5.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					5/19/2014	Trench-Subsurface	SL-548-SA8-TR-10.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015

Table 2-2
Soil Samples Designated to be Collected for Trenches - Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
8_DG-611	Southern Portion of Hillslope	Characterizes hillslope southeast of the ESADA and targets debris area identified during the 2008 debris survey. Conduct exploratory test pit to investigate debris area. If fill, staining, debris, or other impacts are observed, collect sample targeting top of native soil. Bedrock anticipated <10 feet bgs. If deep soils encountered, sample and place on hold pending shallow results.	11.5	None indicated.	5/20/2014	Test Pit-Surface	SL-611-SA8-TR-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015
					5/20/2014	Test Pit-Subsurface	SL-611-SA8-TR-5.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					5/20/2014	Test Pit-Subsurface	SL-611-SA8-TR-10.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015

Notes & Abbreviations:
Note: The sample number for a "duplicate sample" was increased by 300 (e.g. SB-530 and SB-830)
AST = Above-ground Storage Tank
bgs = below ground surface
Cr (VI) = hexavalent chromium
EFH = extractable fuel hydrocarbon
EPA = Environmental Protection Agency
ESA = Environmentally Sensitive Area
ESADA = Empire State Atomic Development Authority
ESG = Energy Systems Group
ft = feet
GPS = Global Positioning System
GRO = gasoline range organics
HSA = Historical Site Assessment
ID = identifier
ISF = interim storage facility
ISL = interim screening level
ND = nondetect
PAH = polyaromatic hydrocarbon
PCB = polychlorinated biphenyl
PCT = polychlorinated triphenyl
PID = photoionization detector
RFI = Facility Investigation Reports
RL = reporting limit
RMHF = Radioactive Material Handling Facility
SCTI = Sodium Component Test Installation
SIM = selective ion monitoring
SNAP = Streamlined New Acquisition Process
SRE = Sodium Reactor Experiment
TM = technical memorandum
TPH = total petroleum hydrocarbon
TR = trench
VOC = volatile organic compound
< = less than

Table 2-3

Soil Samples Designated to be Collected for Soil Vapor Locations - Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
5ASV_DG-529	Drainage Along 17th Street Northwest of B4005	Targets confluence of multiple drainages receiving surface water runoff from operational areas to the northeast, north, and northwest, eventually discharging to the 17th Street Pond. Collect deepest sample just above bedrock to assess potential migration to groundwater.	4.5	None indicated.	6/5/2014	Subsurface	SVL-529-SA5A-SB-4.0-4.5	VOC EPA 8260
5ASV_DG-552	Open Field East of Coal Storage / Parking Area	Targets discharge from lined drainage into open field.	8.75	1.5-2 ft bgs: fill described as disturbed native soil.	6/5/2014	Subsurface	SVL-552-SA5A-SB-1.5-2.0	VOC EPA 8260
5ASV_DG-554	East of Coal Storage / Parking Area at 17th and G Street	Targets unlined surface water pathway along the northeastern perimeter of Coal Storage/Parking Area; shallow bedrock anticipated (~5 ft).	2	1.5-2 ft bgs: fill described as disturbed native soil.	6/5/2014	Subsurface	SVL-554-SA5A-SB-1.5-2.0	VOC EPA 8260
5ASV_DG-566	B4093	Targets sanitary sewer pipe exit from B4093. Collect deepest sample just above bedrock to assess potential leak from sanitary sewer.	3.5	None indicated.	6/4/2014	Subsurface	SVL-566-SA5A-SB-3.0-3.5	VOC EPA 8260
5ASV_DG-571	Open Field South of B4453	Representative location in open field; also positioned on former road.	3	None indicated.	6/4/2014	Subsurface	SVL-571-SA5A-SB-2.5-3.0	VOC EPA 8260
5ASV_DG-574	Open Field Southeast of B4453	Representative location in open field south of 11th Street.	2	1.5-2 ft bgs: fill described as reworked native soil.	6/4/2014	Subsurface	SVL-574-SA5A-SB-1.5-2.0	VOC EPA 8260
5ASV_DG-576	South of B4641	Targets disturbed ground area identified in EPA HSA and visible in the 1995 aerial photo and potential leach field location.	3	2.5-3 ft bgs: fill described as locally sourced fill.	6/4/2014	Subsurface	SVL-576-SA5A-SB-2.5-3.0	VOC EPA 8260
5ASV_DG-611	South of SE Drum Yard	Same as 5ASV_DG-556; shallow bedrock anticipated (~5 ft).	1.85	None indicated.	6/9/2014	Subsurface	SVL-611-SA5A-SB-1.35-1.85	VOC EPA 8260
5ASV_DG-627	South of B4029	Representative location downslope of B4029.	3.5	None indicated.	6/6/2014	Subsurface	SVL-627-SA5A-SB-3.0-3.5	VOC EPA 8260
5ASV_DG-630	North of B4029	Targets dirt road north of B4029 and upslope of Subarea 6.	2	None indicated.	6/9/2014	Subsurface	SVL-630-SA5A-SB-1.5-2.0	VOC EPA 8260
5BSV_DG-501	North of B4019	Representative sample location in storage yard north of B4019.	1.25	0.75-1.25 ft bgs: fill described as other.	5/12/2014	Subsurface	SVL-501-SA5B-SB-0.75-1.25	VOC EPA 8260
5BSV_DG-521	Slope south of B4025	Location targets drainage along road and surface water pathway downslope of B4025 operations / south-side doorway. Shallow refusal in area; collect deeper samples if soil present.	3.5	3.0-3.5 ft bgs: fill described as other.	5/14/2014	Subsurface	SVL-521-SA5B-SB-3.0-3.5	VOC EPA 8260
5BSV_DG-532	North of B4356	One of four representative locations which provide overall characterization of fill material within deep excavation area around former Building 4536; based on previous sporadic elevated detects, fill material observed in borings to south, and geophysical anomalies (magnetic and terrain conductivity anomalies present).	5	None indicated.	5/13/2014	Subsurface	SVL-532-SA5B-SB-4.0-5.0	VOC EPA 8260
					5/13/2014	Subsurface Duplicate	SVL-832-SA5B-SB-4.0-5.0	VOC EPA 8260
5BSV_DG-534	Water Treatment Area West of B4356	Location targets secondary containment trench and pit in SCTI water treatment area.	3.5	None Indicated.	5/15/2014	Subsurface	SVL-534-SA5B-SB-3.0-3.5	VOC EPA 8260

Table 2-3
Soil Samples Designated to be Collected for Soil Vapor Locations - Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
5BSV_DG-536	Northwest Corner of SCTI	Location targets chemical storage area. Shallow refusal in area; collect deeper samples if soil present.	5	1.5-2.0 ft bgs and 4.0-5.0 ft bgs: fill described as disturbed soil.	6/11/2014	Subsurface	SVL-536-SA5B-SB-1.5-2.0	VOC EPA 8260
5BSV_DG-538	South of B4355	Targets open storage identified in EPA aerial photograph review.	2	None Indicated.	5/15/2014	Subsurface	SVL-538-SA5B-SB-1.5-2.0	VOC EPA 8260
5BSV_DG-543	B4358	Targets "potentially saturated area" identified in EPA aerial photograph review. Collect deepest sample just above bedrock.	2.5	2.0-2.5 ft bgs: fill described as other.	5/14/2014	Subsurface	SVL-543-SA5B-SB-2.0-2.5	VOC EPA 8260
5BSV_DG-562	North of B4005/4006 Leach Field	Same as 5BSV_DG-543.	9	None Indicated.	6/10/2014	Subsurface	SVL-562-SA5B-SB-8.0-9.0	VOC EPA 8260
5BSV_DG-563	Southwest of B4005/4006 Leach Field	Location targets drainage along 20th Street.	8	4.5-5.0 ft bgs: fill described as disturbed soil.	6/11/2014	Subsurface	SVL-563-SA5B-SB-4.5-5.0	VOC EPA 8260
5BSV_DG-566	South of B4005/4006 Leach Field	Same as 5BSV_DG-564; also targets fuel pipeline and linear geophysical anomaly.	2.5	2.0-2.5 ft bgs: fill described as other.	5/15/2014	Subsurface	SVL-566-SA5B-SB-2.0-2.5	VOC EPA 8260
5BSV_DG-569	Culvert at 20th and F Street	Targets drainage and culvert.	3.5	2.5-3.0 ft bgs: fill described as disturbed soil.	6/11/2014	Subsurface	SVL-569-SA5B-SB-2.5-3.0	VOC EPA 8260
5BSV_DG-576	West of B4011	Location targets open storage.	4.3	None Indicated.	6/2/2014	Subsurface	SVL-576-SA5B-SB-4.0-4.3	VOC EPA 8260
5BSV_DG-577	Southwest of B4011	One of five samples targeting open storage area; also targets drainage along G Street.	6.2	None Indicated.	6/4/2014	Subsurface	SVL-577-SA5B-SB-5.3-5.8	VOC EPA 8260
5BSV_DG-586	South of B4007	Location targets drainage and culvert leading to 17th Street Pond.	4.25	3.75-4.25 ft bgs: fill described as reworked fill.	6/4/2014	Subsurface	SVL-586-SA5B-SB-3.75-4.25	VOC EPA 8260
					6/4/2014	Subsurface Duplicate	SVL-986-SA5B-SB-3.75-4.25	VOC EPA 8260
5BSV_DG-602	Fill Area West of 17th Street Pond	Same as 5BSV_DG-578.	5	None Indicated.	6/3/2014	Subsurface	SVL-602-SA5B-SB-4.5-5.0	VOC EPA 8260
5CSV_DG-507	Fill area in B4015 Field	Same as 5CSV_DG-503; also targets debris area.	11.5	100% fill: locally sourced.	5/28/2014	Subsurface	SVL-507-SA5C-SB-5.0-6.0	VOC EPA 8260
5CSV_DG-518	South of SPTF	Location targets drainage observed in historical aerial photos along G Street to the south of SPTF.	11.5	5.5-6.0 ft bgs: fill described as disturbed soil	6/2/2014	Subsurface	SVL-518-SA5C-SB-5.5-6.0	VOC EPA 8260
					6/2/2014	Subsurface	SVL-518-SA5C-SB-11.0-11.5	VOC EPA 8260
5CSV_DG-525	NW Side of B4100	One of four samples representing area around B4100; addresses data gap at depth (previous sample from 5 feet bgs only) and elevated RLs in previous sampling (BHSV0009). Proposed depths based on refusal at 19.5 feet bgs in previous soil vapor boring.	21	None indicated.	5/20/2014	Subsurface	SVL-525-SA5C-SB-5.0-6.0	VOC EPA 8260
					5/20/2014	Subsurface	SVL-525-SA5C-SB-10.0-11.0	VOC EPA 8260
					5/20/2014	Subsurface	SVL-525-SA5C-SB-15.0-16.0	VOC EPA 8260
5CSV_DG-531	B100 Trench	Location targets B100 Trench excavation/backfill and addresses elevated RLs in previous sampling (BHSV02, BHSV1000). Sample depth based on refusal observed at nearby locations; collect deeper samples if soil is present.	2.9	100% fill - soil backfill	5/20/2014	Subsurface	SVL-531-SA5C-SB-2.5-2.9	VOC EPA 8260
5CSV_DG-545	West of B4065	Location targets open storage area identified during EPA aerial photo review. Refusal observed at approx. 3 feet in area; collect sample at 5 feet or just above bedrock.	3.5	100% fill - locally sourced.	5/28/2014	Subsurface	SVL-545-SA5C-SB-3.0-3.5	VOC EPA 8260

Table 2-3

Soil Samples Designated to be Collected for Soil Vapor Locations - Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
5CSV_DG-549	Northwest of B4062	Representative location in operational area.	8.85	6.3-6.8 ft bgs: fill described as disturbed soil.	6/10/2014	Subsurface	SVL-549-SA5C-SB-6.3-6.8	VOC EPA 8260
5CSV_DG-551	Southern Screening Area	Representative location to characterize fill area southeast of the Building 56 Landfill.	2.8	100% fill - reworked native soil.	5/28/2014	Subsurface	SVL-551-SA5C-SB-2.0-2.8	VOC EPA 8260
5CSV_DG-557	Southern Screening Area	Same as 5CSV_DG-551.	3.5	100% fill - graded soil.	5/29/2014	Subsurface	SVL-557-SA5C-SB-3.0-3.5	VOC EPA 8260
5CSV_DG-559	Northwest of B4038	Same as 5CSV_DG-558.	3	100% fill - locally sourced.	5/29/2014	Subsurface	SVL-559-SA5C-SB-2.5-3.0	VOC EPA 8260
5CSV_DG-561	South of B4057	Stepout for detects at locations near the dry well (SASV1005, SASV1006, SASV1007).	11	10.5-11.0 ft bgs: fill described as disturbed soil.	6/10/2014	Subsurface	SVL-561-SA5C-SB-10.5-11.0	VOC EPA 8260
5CSV_DG-563	North side of B4057	Location addresses potential storage on north wall of B4057 indicated by historical documentation (SNAP RFI Report, 2008).	1.5	0.0-1.5 ft bgs: fill described as reworked native soil.	6/2/2014	Subsurface	SVL-563-SA5C-SB-1.0-1.5	VOC EPA 8260
5DSV_DG-511	B4020 Footprint	Targets a former sump in the southern portion of the B4020 basement. Also this location is one of three representative locations which provide overall characterization of fill material used to backfill the B4020 post-demolition excavation.	10.5	100% fill - locally sourced	5/22/2014	Subsurface	SVL-511-SA5D-SB-4.5-5.5	VOC EPA 8260
				100% fill - locally sourced	5/22/2014	Subsurface Duplicate	SVL-811-SA5D-SB-4.5-5.5	VOC EPA 8260
5DSV_DG-512	B4020 Footprint	Targets former sump in the central portion of the B4020 basement. Also this location is one of three representative locations which provide overall characterization of fill material used to backfill the B4020 post-demolition excavation.	17.75	100% fill - from local source	5/21/2014	Subsurface	SVL-512-SA5D-SB-5.0-6.0	VOC EPA 8260
5DSV_DG-515	East of B4020	Targets the location of the former 3,000-gallon radioactive waste holdup tank.	13.8	100% fill - imported from local source	5/21/2014	Subsurface	SVL-515-SA5D-SB-5.0-6.0	VOC EPA 8260
5DSV_DG-532	East of B4353	Targets the B4353 Leach Field.	4.5	100% fill - from local source.	5/27/2014	Subsurface	SVL-532-SA5D-SB-4.0-4.5	VOC EPA 8260
5DSV_DG-536	Northeast of B4363	Targets drainage northeast of B4363 and ground scar identified in the EPA TM.	2.3	100% fill - reworked native soil.	5/23/2014	Subsurface	SVL-536-SA5D-SB-1.8-2.3	VOC EPA 8260
5DSV_DG-546	Northwestern Portion of Pond Dredge Area	Characterizes the northwestern portion of the Pond Dredge Area. Also targets the estimated area of the drop zone of depleted uranium slugs reportedly dropped in the 1960s identified in the EPA TM.	17	100% fill - from local source	5/27/2014	Subsurface	SVL-546-SA5D-SB-5.0-6.0	VOC EPA 8260
5DSV_DG-550	Eastern Portion of Pond Dredge Area	Characterizes the eastern portion of the Pond Dredge Area. Also targets light toned material identified in the EPA TM.	18	None indicated.	5/27/2014	Subsurface	SVL-550-SA5D-SB-5.0-6.0	VOC EPA 8260
5DSV_DG-553	South of B4363	Targets ground scar identified in EPA TM.	20	None Indicated.	6/3/2014	Subsurface	SVL-553-SA5D-SB-4.5-5.5	VOC EPA 8260
					6/3/2014	Subsurface	SVL-553-SA5D-SB-9.0-10.0	VOC EPA 8260
					6/3/2014	Subsurface	SVL-553-SA5D-SB-14.0-15.0	VOC EPA 8260
					6/3/2014	Subsurface	SVL-553-SA5D-SB-19.0-20.0	VOC EPA 8260
5DSV_DG-556	South of B4353	Targets medium toned mounded material identified in EPA TM.	12	None Indicated.	6/3/2014	Subsurface	SVL-556-SA5D-SB-4.5-5.5	VOC EPA 8260
					6/3/2014	Subsurface	SVL-556-SA5D-SB-10.0-11.0	VOC EPA 8260
6SV_DG-527	B4003	Representative location in southern portion of B4003 footprint.	3	2.0-3.0 ft bgs: fill described as small cut pipe, disturbed soil, asphalt, and concrete.	6/9/2014	Subsurface	SVL-527-SA6-SB-2.0-3.0	VOC EPA 8260

Table 2-3
Soil Samples Designated to be Collected for Soil Vapor Locations - Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
6SV_DG-551	Drainage South of SRE Pipeline Discharge	Location targets low spot in drainage south of SRE pipeline discharge and evaluates area as potential input location to groundwater contamination.	5	4.0-5.0 ft bgs: fill described as minor asphalt, and disturbed soil.	6/10/2014	Subsurface	SVL-551-SA6-SB-4.0-5.0	VOC EPA 8260
6SV_DG-574	Northwest Portion of Subarea 6 South	Same as 6SV_DG-571.	4.3	None indicated.	6/9/2014	Subsurface	SVL-574-SA6-SB-3.8-4.3	VOC EPA 8260
6SV_DG-577	Southeast Portion of Subarea 6 South	Location targets area downslope of SPA operational area.	2	None indicated.	6/11/2014	Subsurface	SVL-577-SA6-SB-1.0-2.0	VOC EPA 8260
8SV_DG-504	North of FSDF	Characterizes vapor in native soil adjacent to the 2000 Interim Measure excavation area. Location selected is north of the Former Lower Pond and adjacent to elevated detections of VOCs in a soil vapor sample collected within the backfill.	2.5	None indicated.	5/16/2014	Subsurface	SVL-504-SA8-SB-2.0-2.5	VOC EPA 8260
8SV_DG-517	North of ESADA	Characterizes the area south of FSDF that was graded during the 2000 Interim Measures.	16.5	None indicated.	5/19/2014	Subsurface	SVL-517-SA8-SB-5.0-6.0	VOC EPA 8260
					5/19/2014	Subsurface	SVL-517-SA8-SB-10.0-11.0	VOC EPA 8260
					5/19/2014	Subsurface	SVL-517-SA8-SB-15.5-16.5	VOC EPA 8260
8SV_DG-519	North of ESADA	Targets the former pipeline running from former Building 4814 to FSDF identified in a historical drawing.	8	7.5-8.0 ft bgs: fill described as other.	5/16/2014	Subsurface	SVL-519-SA8-SB-7.5-8.0	VOC EPA 8260
8SV_DG-524	ESADA	Characterizes the ESADA Former Pistol Range.	11.5	None indicated.	5/19/2014	Subsurface	SVL-524-SA8-SB-4.5-5.5	VOC EPA 8260
8SV_DG-528	Solar Concentrator Facility	Targets the former footprint of the Solar Concentrator Facility.	19.5	None indicated.	5/19/2014	Subsurface	SVL-528-SA8-SB-5.0-6.0	VOC EPA 8260
					5/19/2014	Subsurface	SVL-528-SA8-SB-11.0-12.0	VOC EPA 8260
8SV_DG-532	Northwest of B4009	Characterizes the unlined drainage downstream of B4009 and leach field to assess for potential contaminant migration.	4	None indicated.	6/12/2014	Subsurface	SVL-532-SA8-SB-3.5-4.0	VOC EPA 8260
8SV_DG-546	North of FSDF	Targets the drainage downstream of FSDF.	4.9	None indicated.	6/12/2014	Subsurface	SVL-546-SA8-SB-4.4-4.9	VOC EPA 8260
					6/12/2014	Subsurface Duplicate	SVL-846-SA8-SB-4.4-4.9	VOC EPA 8260

Notes & Abbreviations:
Note: The sample number for a "duplicate sample" was increased by 300 (e.g. SB-530 and SB-830)
bgs = below ground surface
B4005 = Building 4005
Cr (VI) = hexavalent chromium
DG_ = Data Gap
ESA = Environmentally Sensitive Area
ESADA = Empire State Atomic Development Authority
ft = feet
FSDF = Former Sodium Disposal Facility
HSA = Historical Site Assessment
ID = identifier
ISF = interim storage facility
ISL = interim screening level
ND = nondetect
RFI = Facility Investigation Reports
RL = reporting limit
RMHF = Radioactive Material Handling Facility
SCTI = Sodium Component Test Installation
SIM = selective ion monitoring
SNAP = Streamlined New Acquisition Process
SPA = Storable Propellants Area
SPTF = Sodium Pump Test Facility
SRE = Sodium Reactor Experiment
SVL = Soil Vapor Location
TM = Technical Memorandum
TPH = total petroleum hydrocarbon
VOC = volatile organic compound
< = less than

2.1 Surface Sampling

Go-Back Samples and Soil Vapor Location Samples

Prior to the collection of the surface soil samples for Go-Backs, the surface of each sample area was prepared by removing leaves, grass, and any other surface debris. Sixty-six surface samples, including field duplicates, were collected at 63 locations for the Go-Back sampling event.

Fifty-four of the 66 Go-Back surface samples were collected from the ground surface to 6 inches bgs using a slide hammer equipped with a 2-inch diameter and 6-inch long stainless steel sample liner in accordance with SSFL SOP 2 (Surface Soil Sampling) of the Master FSP (CDM Smith 2012a). The slide hammer sampler was pounded into the soil until the top of the sampler was flush with the ground surface. The sampler was then removed from the soil. The sample sleeve was removed from the sampler and both ends capped with a Teflon® liner and a plastic cap.

The remaining 12 surface samples were collected using a direct push technology (DPT) rig in accordance with SSFL SOP 4 (DPT Sampling) of the Master FSP (CDM Smith 2012a). Stainless steel sleeves measuring 5 ¾ inches by 1 ¾ inches were inserted into the DPT split spoon sampler and pushed to the required sample interval. Upon removal from the DPT sampler, each liner was capped on both ends with a Teflon® liner and plastic cap.

After the samples were collected and labeled "Top" and "Bottom," adhesive sample labels, completed with all sampling information, were affixed to all sample sleeves and jars, which were then placed into plastic zip top bags and stored in a cooler with double bagged ice until the samples were relinquished to the project sample coordinator or field team leader (FTL). Each surface sample was analyzed for the methods identified for each sample location as indicated in the addendums listed in Section 1.

No surface samples were collected during the Soil Vapor Location sampling because the contaminants of interest, total petroleum hydrocarbons (TPHs) and VOCs, volatize at the surface and very shallow depths. Appendix H presents the MWH Soil Vapor Report.

2.2 Subsurface Sampling

Go-Back Samples and Soil Vapor Location Samples

Collection of 23 subsurface soil samples for Go-Backs and Soil Vapor Locations were performed in accordance with SSFL SOP 3 (Subsurface Soil Sampling with Hand Auger) of the Master FSP (CDM Smith 2012a) using a hand auger and slide hammer equipped with stainless steel sleeves. Eighteen subsurface samples, including field duplicates, were collected from 16 locations inaccessible to the DPT rig in the Go-Back sample event via hand auger and slide hammer. Five subsurface samples were collected from 4 locations during the Soil Vapor Location sample event via hand auger and slide hammer.

Each location was augered to the required sample depth and every foot of augered soil was retrieved to the surface, placed in plastic bags and screened using the Micro R, Pancake, and PID. Any EnCore® samplers needed were filled from the bottom end of the stainless steel sleeve inside the slide hammer and the sleeve was capped and submitted for the required analyses. This process was repeated at those locations where deeper soils were encountered.

After all samples were collected from the boring, the hand augered hole was backfilled with the soil cuttings and topped off with a bentonite chip seal, if necessary. At locations in asphalt, an asphalt patch was placed on top of the bentonite.

Collection of subsurface soil samples at easily accessible locations for Go-Backs and Soil Vapor Locations was performed by a California-licensed DPT subcontractor under CDM Smith oversight and in accordance with SSFL SOP 4 (DPT Sampling) of the Master FSP (CDM Smith 2012a). Thirty subsurface samples were collected from 28 locations during the Go-Back sample event. Sixty-five subsurface samples were collected from 53 locations during the Soil Vapor Location sample event. Soil cores were collected using the DPT dual-tube sampling method, which consists of a 2-inch outer steel drive casing and an inner 1¾-inch diameter acetate soil sampling sleeve. After the liner was retracted from the core barrel, it was opened lengthwise with a cutting tool. Samples were collected from the acetate sleeve at the depths specified in Table 1 of the Final Phase 3 Data Gap Analysis for Subareas 5B, C, 3/6 and 7 and Subareas 5A, 5D, 8 and Northern Buffer Zone TMs. Samples were also collected from any depths where the PID detected concentrations above background or where there was visual evidence of possible contamination.

Soil for TPH-Gasoline Range Organics (GRO) and TPH-Extractable Fuel Hydrocarbons (EFH) analyses was collected from the acetate sleeve using EnCore® samplers. Subsurface soil for semivolatile organic compound (SVOC) polycyclic aromatic hydrocarbon (PAH), and polychlorinated biphenyl/polychlorinated triphenyl (PCB/PCT) analyses was removed from the acetate sleeve in a manner causing minimal soil disturbance and placed into glass jars ranging from four ounces to 16 ounces depending on volume of soil needed for the required analyses. Soil for all non-volatile analyses was also placed into glass jars. Adhesive sample labels were completed with all sampling information and affixed to each sample jar, and then placed into plastic zip top bags. The EnCore® samplers were placed into the bags in which they were received (three samplers per bag), and the sample label affixed to the outside of the bag. All jars and EnCore® samplers were placed in a cooler with double bagged ice.

2.3 Trench and Test Pit Sampling

Trenching was performed by MWH. Completion of trenches and collection of trench samples was conducted in accordance with SOP 5 (Backhoe Trenching/ Test Pits for Sample Collection) of the Master FSP (CDM Smith 2012). All trench locations were located using a GPS device and adjusted according to field observations. Geophysical clearance of subsurface utilities, geophysical investigations of subsurface features and clearance of any biological or cultural features were conducted prior to trenching. Nineteen trenches were completed using a Deere 310 SJ backhoe. Thirty-eight subsurface soil samples and 19 surface samples were collected directly from the backhoe bucket after screening according to SOP 7 (Field Measurement of Residual Radiation) of the Master FSP (CDM Smith 2012) and SOP 6 (Field Measurement of Total Organic Vapors) of the Master FSP (CDM Smith 2012). A trench log was prepared detailing description of the soil, bedrock and targeted features in accordance with SOP 9 (Lithologic Logging) of the Master FSP (CDM Smith 2012).

After the samples were collected, adhesive sample labels, completed with all sampling information, were affixed to all sample sleeves and jars, which were then placed into plastic zip top bags and stored in a cooler with double bagged ice until the samples were relinquished to the project sample coordinator or FTL. Any soil collected for TPH-GRO and EFH analyses were collected directly from the backhoe bucket using EnCore® samplers.

Full details for trench sampling are included in the Technical Memorandum-Summary of Phase 3 Trench Investigation Activities in Area IV (MWH, Inc. 2014) presented in Appendix G.

2.4 Sample Handling

All soil samples were relinquished by the field sampler or geologist to CDM Smith's FTL or sample coordinator. The FTL or sample coordinator reviewed the completed FSDS for each submitted soil sample and ensured that the sample labels were legible and correct and the sample labels matched the information on the FSDS. Any discrepancies were discussed with the field samplers and corrections to the sample labels and/or FSDS were made as needed. All sample labels were covered with clear tape, the sleeves and jars placed back into their plastic zip top bag, and refrigerated.

All sampling information on the FSDS was input into the Scribe electronic database by the sampling coordinator and one or more chain-of-custody (CoC) forms were generated at the end of the day from the database. The FTL reviewed each CoC, corrected any discrepancies, and reprinted the CoC, as needed. All CoCs for the Go-Back, Trench and Soil Vapor Location samples for Phase 3 sampling activities are presented in Appendix F. Each completed CoC was signed by the sampler and the FTL as the individual responsible for release of the samples to the courier. All samples were packed into coolers and shipped in accordance with SSFL SOP 11 (Packaging and Shipping Environmental Samples).

2.5 Field Quality Control Procedures

Quality control (QC) samples collected in the field included field duplicates, matrix spike (MS)/matrix spike duplicate (MSD) samples, equipment rinsate blanks and field blanks. Trip blanks filled with laboratory analyte-free water were sent to the site from the laboratory and were submitted unopened with any samples to be analyzed for all applicable methods.

2.5.1 Field Duplicates and MS/MSD Samples

Both the field duplicates and MS/MSD samples were to be collected at a frequency of one per 20 (five percent) parent samples soil samples collected. The field duplicate and MS/MSD samples are collected from the same location. The duplicate samples were submitted to the laboratory as separate (and blind) from the parent samples. The MS/MSD samples are additional volume of the parent samples collected in triple volume for the DPT subsurface samples; a double volume of soil was sufficient for the surface and hand-augered MS/MSD samples.

During sampling for Go-Backs, Trenches and Soil Vapor Locations, a total of six Go-Back, three Trench and four Soil Vapor Location field duplicate/MS/MSD samples were collected equating to approximately 5.2 to 5.7 percent for each sample type. On an individual method basis, the five percent goal was exceeded for all analyses.

2.5.2 Equipment Rinsate Blank Samples

Equipment rinsate blanks were collected weekly for both surface and subsurface soil samples regardless of the number of soil samples collected.

2.5.3 Field Blank Samples

Field blanks were collected once for each lot number of ASTM International Type II water that was used for decontamination. One field blank was collected during Go-Backs, Trenches and Soil Vapor

Locations Phase 3 sampling. Other field blanks are associated with Go-Backs, Trenches and Soil Vapor Location samples but were collected prior to the sampling conducted in these subareas.

2.5.4 Decontamination of Sampling Equipment

All sampling and drilling equipment were decontaminated by the DPT subcontractor and/or CDM Smith staff before and after completing each sample. This included the hand auger equipment, slide hammer equipment, split spoon sampler and drill rods for the DPT, Encore® sampler and other sampling equipment. All sampling equipment was cleaned with the triple rinse method before sampling at the next depth; cleaning was also done between locations. The external surfaces of the equipment were washed with potable water and Alconox®, or equivalent laboratory-grade detergent. Equipment was scrubbed until all visible dirt, grime, grease, oil, loose paint, rust flakes, etc., was removed. The equipment was then rinsed with potable water.

Any surface sampling equipment that came into contact with soil including the auger bucket and the slide hammer sampler cup and cap (that holds the stainless steel sleeves in place while sampling) were decontaminated as follows:

- Washed with a solution of potable water and Alconox®, or equivalent laboratory-grade detergent
- Rinsed thoroughly with potable water
- Given a final rinse with ASTM International Type II water

If the sampling device was not used immediately after being decontaminated, it was placed in a sealed plastic bag.

2.6 Analytical Laboratory Methods and Procedures

2.6.1 Analytical Methods

The Go-Backs, Trenches and Soil Vapor Location Phase 3 soil samples were subject to analysis using at least one of the following analytical methods:

- Metals using U.S. Environmental Protection Agency (EPA) Methods 6010C/6020A, 7471B (mercury), and 7199 (chromium VI)
- Soil pH using EPA Method 9045M
- SVOCs using EPA Method 8270D
- PAHs using EPA Method 8270D selective ion monitoring (SIM)
- VOCs using EPA Method 8260B
- 1,4-Dioxane using EPA Method 8260B SIM
- Perchlorate using EPA Method 6850
- Pesticides using EPA Method 8081B
- Herbicides using EPA Method 8151A

- PCBs/PCTs using EPA Method 8082A
- Dioxins/furans using EPA Method 1613B
- Formaldehyde using EPA Method 8315A
- Terphenyls using EPA Method 8015B
- Glycols using EPA Method 8015C/8015B
- TPH-EFH using EPA Method 8015M
- TPH-GRO using EPA Method 8015M
- Energetics using EPA Method 8330A

Eurofins Lancaster Laboratory in Lancaster, Pennsylvania analyzed all parameters for the Go-Backs, Trenches and Soil Vapor Location Phase 3 samples. The laboratory was selected using a competitive procurement process.

2.7 Data Review Processes

Analytical data produced by the analytical laboratory (Eurofins Lancaster Laboratory) were subject to multiple review steps to coincide with the start of distinct tasks. These steps were performed in a timely manner to ensure appropriate feedback and correction of errors. These steps included:

- Cross-reference check of sample CoC documents against the laboratory acknowledgement of sample receipt form. The laboratory acknowledgement of sample receipt was typically transmitted to the data manager via e-mail two to three days after sample receipt and login and includes a summary of the requested analyses to be performed per sample. Sample log-in errors were identified and corrected at this step.
- Tracking of sample collection, receipt, and laboratory sample delivery group (SDG) numbers on a sample tracking spreadsheet. This spreadsheet also includes field QC sample information, sample location coordinates, and required laboratory deliverables including reports, electronic data deliverables, raw data, and the status of validation.
- Laboratory consultation with the project chemists on data quality issues during sample analyses such as missed holding times, poor spike recoveries, etc. These issues are discussed between the project chemists and the laboratory and are resolved based on technical merit and determined if usable in the evaluation.

Upon receipt of the laboratory report (delivered via e-mail), a preliminary review of the data was performed. This review consisted of:

- Reconciliation of the reported analyses against the analyses that were requested on the CoCs.
- Review of the laboratory case narratives. The case narrative identifies and explains quality issues encountered during the analysis of the samples. Quality issues may include (but are not limited to) expired holding times, poor spike recoveries in matrix or batch-specific QC samples, instrument calibration exceedances, and blank contamination.

- Review of the laboratory-specific QC data. These data are provided by the laboratory in summary form. Any unanticipated deviations from the project or method-specific criteria are reconciled with the laboratory at this stage.

2.8 Deviations from the Master FSP

During the Phase 3 field sampling and analytical programs, modifications from the procedures detailed in the Master FSP (CDM Smith 2012a) and project SOPs were required. These modifications and associated resolutions were discussed with the FTL, the project manager, and in some cases with the DTSC representative prior to implementation. In other instances, deviations effected in the field were not discussed with the project manager or DTSC prior to their implementation. These deviations are described in the following subsections.

2.8.1 Field Sampling

The SSFL SOP 2 (Surface Soil Sampling) requires soil to be collected in decontaminated stainless steel sleeves during soil sample collection by slide hammer. Due to loose, sandy soil conditions that prevented soil from remaining within the stainless steel sleeve, 13 samples for Go-Backs were collected and placed directly into glass jars. The sample numbers are as follows:

- FDG2-SL-1175-SA5A-SB-2.0-3.0
- FDG2-SL-561-NBZ-SB-0.0-0.5
- FDG2-SL-562-NBZ-SB-0.0-0.5
- FDG2-SL-576-NBZ-SB-2.0-3.0
- FDG2-SL-628-SA8-SB-14.0-15.0
- FDG2-SL-630-SA8-SB-4.0-5.0
- FDG2-SL-875-SA5A-SB-0.0-0.5
- FDG2-SL-875-SA5A-SB-2.0-3.0
- FDG2-SL-876-SA5A-SB-0.0-0.5
- FDG2-SL-876-SA5A-SB-4.0-5.0
- FDG2-SL-877-SA5A-SB-0.0-0.5
- FDG2-SL-877-SA5A-SB-3.0-4.0
- FDG2-SL-511-SA5C-SB-2.0-3.0

2.8.2 Analytical

No analytical deviations were encountered during analyses of samples collected for Phase 3 Go-Backs, Trenches and Soil Vapor Locations.

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Section 3

Go-Backs, Trenches and Soil Vapor Locations Phase 3 Soil Sample Analytical Results

Because this TM only provides the analytical results, data in this section are presented in a summary fashion. Tables 3-1, 3-2 and 3-3 summarize the Go-Backs, Trenches and Soil Vapor Location Phase 3 surface, subsurface and combined soil sample data respectively. The tables detail the chemicals analyzed, their associated chemical abstract service (CAS) number, frequency of detection, minimum and maximum detected concentrations, range of observed detection limits and reporting limits (RLs), and the sample location where the maximum concentration of each analyte was detected. If two locations for the maximum concentration are listed and only one maximum concentration value is provided, this indicates that the concentration was the same at the specified depth at both locations.

Appendix A provides tables for all validated data by analytical method and sample location. Data validation qualifier codes and their definitions are presented in these tables. Appendix B provides the summary analytical data reports as received from Eurofins Lancaster Laboratory. Appendix C presents the data usability and assessment report (DUAR), which details specific qualifications of sample results along with all validation reports. Appendix D is the master database of all sample results including the data validation qualifiers. Appendix E provides the FSDS and boring logs. Appendix F provides the CoC records for all of the samples submitted to Eurofins Lancaster Laboratory. Appendices G and H provide the MWH reports for Trench sampling and Soil Vapor sampling, respectively.

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Table 3-1
Summary of Analytical Results for Chemicals - Validated Data
Surface Soils - Go-Backs, Trenches and Soil Vapor Locations - Phase 3

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Lab of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration (feet)
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	17 / 20	0.938 J Z	2670 J *#	0.015 - 0.283	4.9 - 6	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	17 / 20	0.33 J Z	282	0.00525 - 0.11	4.9 - 6	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	11 / 20	0.088 J Z	25.5	0.0103 - 0.14	4.9 - 6	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	12 / 20	0.129 J Z	26	0.0158 - 0.153	4.9 - 6	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	14 / 20	0.1 J Z	6.99	0.017 - 0.133	4.9 - 6	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	17 / 20	0.095 J Z	126	0.0159 - 0.153	4.9 - 6	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	12 / 20	0.038 J Z	10.1	0.0141 - 0.136	4.9 - 6	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	18 / 20	0.149 J Z	52.2	0.0156 - 0.149	4.9 - 6	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	12 / 20	0.068 J Z	1.88 J Z	0.0176 - 0.129	4.9 - 6	ng/kg	5D_DG-586	LL	1613B	0 - 0.5
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	11 / 20	0.315 J Z	4.19 J Z	0.0075 - 0.0897	4.9 - 6	ng/kg	5D_DG-584	LL	1613B	0 - 0.5
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	15 / 20	0.044 J Z	11.8	0.0181 - 0.278	4.9 - 6	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	10 / 20	0.063 J Z	21.7	0.014 - 0.129	4.9 - 6	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Dioxins	2,3,4,7,8-PECDF	57117-31-4	10 / 20	0.11 J Z	3.07 J Z	0.00758 - 0.0844	4.9 - 6	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Dioxins	2,3,7,8-TCDD	1746-01-6	6 / 20	0.087 J Z	1.52	0.0136 - 0.201	0.98 - 1.2	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	14 / 20	0.064 J Z	1.64	0.0147 - 0.152	0.98 - 1.2	ng/kg	5D_DG-584	LL	1613B	0 - 0.5
Dioxins	OCDD	3268-87-9	19 / 20	4.52 J Z	26100 J *#	0.0148 - 0.171	9.8 - 12	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Dioxins	OCDF	39001-02-0	15 / 20	0.878 J Z	584	0.00971 - 0.0863	9.8 - 12	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Formaldehyde	Formaldehyde	50-00-0	0 / 3	-	-	1300 - 13000	2100 - 21000	µg/kg	-	-	-	-
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	0 / 2	-	-	45 - 45	91 - 92	µg/kg	-	-	-	-
Herbicides	2,4,5-T	93-76-5	0 / 1	-	-	0.83 - 0.83	1.7 - 1.7	µg/kg	-	-	-	-
Herbicides	2,4-D	94-75-7	0 / 1	-	-	12 - 12	37 - 37	µg/kg	-	-	-	-
Herbicides	2,4-DB	94-82-6	1 / 1	16 J Z, *#	16 J Z, *#	6.3 - 6.3	17 - 17	µg/kg	NBZ_DG-559	LL	8151A	0 - 0.5
Herbicides	Dicamba	1918-00-9	0 / 2	-	-	4.1 - 4.1	12 - 12	µg/kg	-	-	-	-
Herbicides	Dichlorprop	120-36-5	0 / 1	-	-	9.1 - 9.1	17 - 17	µg/kg	-	-	-	-
Herbicides	Dinitrobutyl Phenol	88-85-7	0 / 1	-	-	9.1 - 9.1	24 - 24	µg/kg	-	-	-	-
Herbicides	MCPA	94-74-6	0 / 2	-	-	770 - 770	2500 - 2500	µg/kg	-	-	-	-
Herbicides	MCPP	93-65-2	0 / 2	-	-	760 - 760	2500 - 2500	µg/kg	-	-	-	-
Herbicides	Silvex (2,4,5-TP)	93-72-1	0 / 1	-	-	0.76 - 0.76	1.7 - 1.7	µg/kg	-	-	-	-
Mercury	Mercury	7439-97-6	27 / 33	0.012 J Z	0.375	0.0095 - 0.0121	0.0158 - 0.0202	mg/kg	NBZ_DG-566	LL	7471B	0 - 0.5
Metals	Aluminum	7429-90-5	33 / 33	6530	26800	4.57 - 8.85	39 - 49.1	mg/kg	NBZ_DG-578	LL	6010C	0 - 0.5
Metals	Antimony	7440-36-0	0 / 33	-	-	0.332 - 0.908	3.9 - 4.91	mg/kg	-	-	-	-
Metals	Arsenic	7440-38-2	32 / 33	0.941 J Z	28.9	0.645 - 0.859	3.9 - 4.91	mg/kg	NBZ_DG-562	LL	6010C	0 - 0.5
Metals	Barium	7440-39-3	33 / 33	39.2	132	0.0322 - 0.0405	0.976 - 1.23	mg/kg	NBZ_DG-574	LL	6010C	0 - 0.5
Metals	Beryllium	7440-41-7	33 / 33	0.281 J Z	1.38	0.0654 - 0.0822	0.976 - 1.23	mg/kg	NBZ_DG-578	LL	6010C	0 - 0.5
Metals	Boron	7440-42-8	9 / 33	1.26 J Z	10.6	0.82 - 1.03	9.76 - 12.3	mg/kg	NBZ_DG-581	LL	6010C	0 - 0.5
Metals	Cadmium	7440-43-9	12 / 33	0.1 J Z	1.26	0.0332 - 0.0932	0.976 - 1.23	mg/kg	5D_DG-584	LL	6010C	0 - 0.5
Metals	Calcium	7440-70-2	33 / 33	2170 J E, A 2170	38400	3.26 - 4.1	19.5 - 24.5	mg/kg	5C_DG-511	LL	6010C	0 - 0.5
Metals	Chromium	7440-47-3	33 / 33	8.11	33.3	0.111 - 0.196	2.93 - 3.68	mg/kg	NBZ_DG-581	LL	6010C	0 - 0.5
Metals	Cobalt	7440-48-4	33 / 33	2.44	10.6	0.0966 - 0.121	0.976 - 1.23	mg/kg	NBZ_DG-581	LL	6010C	0 - 0.5
Metals	Copper	7440-50-8	33 / 33	5.23	37.5	0.283 - 0.356	1.95 - 2.45	mg/kg	5D_DG-584	LL	6010C	0 - 0.5
Metals	Iron	7439-89-6	33 / 33	12000	36900	3.36 - 19.1	39 - 211	mg/kg	NBZ_DG-578	LL	6010C	0 - 0.5
Metals	Lead	7439-92-1	33 / 33	4.19	23.6	0.488 - 0.613	2.93 - 3.68	mg/kg	NBZ_DG-568	LL	6010C	0 - 0.5
Metals	Lithium	7439-93-2	33 / 33	14.2	45	0.33 - 0.68	3.9 - 4.9	mg/kg	NBZ_DG-581	LL	6010C	0 - 0.5
Metals	Magnesium	7439-95-4	33 / 33	2670	8620	1.63 - 2.05	9.76 - 12.3	mg/kg	NBZ_DG-581	LL	6010C	0 - 0.5
Metals	Manganese	7439-96-5	33 / 33	141	431	0.081 - 0.102	0.976 - 1.23	mg/kg	5C_DG-748	LL	6010C	0 - 0.5
Metals	Molybdenum	7439-98-7	17 / 33	0.18 J Z	10.7	0.166 - 0.209	1.95 - 2.45	mg/kg	NBZ_DG-562	LL	6010C	0 - 0.5
Metals	Nickel	7440-02-0	33 / 33	4.86	21.6 J A	0.127 - 0.159	1.95 - 2.45	mg/kg	5D_DG-586	LL	6010C	0 - 0.5
Metals	Phosphorus	7723-14-0	33 / 33	184	608	0.322 - 3.55	9.76 - 12.3	mg/kg	5A_DG-875	LL	6010C	0 - 0.5
Metals	Potassium	7440-09-7	33 / 33	1740	5720 J Q	8.14 - 13.7	97.6 - 123	mg/kg	NBZ_DG-574	LL	6010C	0 - 0.5
Metals	Selenium	7782-49-2	30 / 33	0.1 J Z	1.04	0.0976 - 0.123	0.39 - 0.491	mg/kg	NBZ_DG-562	LL	6020A	0 - 0.5
Metals	Silver	7440-22-4	27 / 33	0.026 J Q, E, Z	3.33	0.0201 - 0.0319	0.195 - 0.245	mg/kg	5D_DG-584	LL	6020A	0 - 0.5
Metals	Sodium	7440-23-5	33 / 33	51.8 J Z	325	16.3 - 20.5	97.6 - 123	mg/kg	5B_DG-843	LL	6010C	0 - 0.5
Metals	Strontium	7440-24-6	33 / 33	14.3 J E, Q	79.2	0.0576 - 0.0834	0.39 - 0.491	mg/kg	5C_DG-748	LL	6020A	0 - 0.5
Metals	Thallium	7440-28-0	33 / 33	0.151 J Z	0.425	0.0293 - 0.0368	0.195 - 0.245	mg/kg	NBZ_DG-581	LL	6020A	0 - 0.5
Metals	Tin	7440-31-5	0 / 33	-	-	0.215 - 0.455	9.76 - 12.3	mg/kg	-	-	-	-
Metals	Titanium	7440-32-6	33 / 33	585	1680	0.166 - 0.209	0.976 - 1.23	mg/kg	NBZ_DG-581	LL	6010C	0 - 0.5

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Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Lab of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration (feet)
Metals	Vanadium	7440-62-2	33 / 33	20.1	67.6	0.0917 - 0.159	0.976 - 1.23	mg/kg	NBZ_DG-581	LL	6010C	0 - 0.5
Metals	Zinc	7440-66-6	33 / 33	32.4	178 J Q, E	0.195 - 0.275	3.9 - 4.91	mg/kg	5C_DG-511	LL	6010C	0 - 0.5
Metals	Zirconium	7440-67-7	13 / 33	0.89 J Z	7.09	0.816 - 1.03	4.88 - 6.13	mg/kg	NBZ_DG-581	LL	6010C	0 - 0.5
Moisture Content	Moisture	MOIST	63 / 63	0.51	19.3	0.1 - 0.1	0.1 - 0.1	%	NBZ_DG-562	LL	160.3M	0 - 0.5
PAHs	1-Methylnaphthalene	90-12-0	13 / 32	0.71 J Z	62	0.67 - 7	1.7 - 18	µg/kg	5C_DG-511	LL	8270D SIM	0 - 0.5
PAHs	2-Methylnaphthalene	91-57-6	16 / 32	0.69 J Z	69	0.67 - 7	1.7 - 18	µg/kg	5C_DG-511	LL	8270D SIM	0 - 0.5
PAHs	Acenaphthene	83-32-9	2 / 32	0.98 J Z	3	0.67 - 7	1.7 - 18	µg/kg	5C_DG-511	LL	8270D SIM	0 - 0.5
PAHs	Acenaphthylene	208-96-8	5 / 32	0.35 J Z	29	0.33 - 3.5	1.7 - 18	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PAHs	Anthracene	120-12-7	11 / 32	0.35 J Z	29	0.33 - 3.5	1.7 - 18	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PAHs	Benzo(a)anthracene	56-55-3	16 / 32	0.75 J Z 0.75 J Z	430	0.67 - 34	1.7 - 84	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PAHs	Benzo(a)pyrene	50-32-8	16 / 32	0.69 J Z	680	0.67 - 34	1.7 - 84	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PAHs	Benzo(b)fluoranthene	205-99-2	23 / 32	0.88 J Z	2600	0.67 - 34	1.7 - 84	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PAHs	Benzo(e)pyrene	192-97-2	8 / 32	3.8 J Z	1100	3.3 - 170	17 - 860	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PAHs	Benzo(g,h,i)perylene	191-24-2	11 / 32	0.75 J Z	590	0.67 - 34	1.7 - 84	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PAHs	Benzo(k)fluoranthene	207-08-9	23 / 32	1.3 J Z	250	0.67 - 34	1.7 - 84	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	21 / 32	6.4 J Z	59	6 - 63	18 - 190	µg/kg	NBZ_DG-559	LL	8270D SIM	0 - 0.5
PAHs	Butylbenzylphthalate	85-68-7	9 / 32	6.8 J Z	120	6 - 63	18 - 190	µg/kg	NBZ_DG-565	LL	8270D SIM	0 - 0.5
PAHs	Chrysene	218-01-9	26 / 32	0.66 J Z	2000	0.33 - 17	1.7 - 84	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PAHs	Dibenzo(a,h)anthracene	53-70-3	6 / 32	0.99 J Z	190	0.67 - 7	1.7 - 18	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PAHs	Diethylphthalate	84-66-2	0 / 32	-	-	6 - 63	18 - 190	µg/kg	-	-	-	-
PAHs	Dimethylphthalate	131-11-3	0 / 32	-	-	6 - 63	18 - 190	µg/kg	-	-	-	-
PAHs	Di-n-butylphthalate	84-74-2	1 / 32	7.1 J FD, Z	7.1 J FD, Z	6 - 63	18 - 190	µg/kg	5D_DG-585	LL	8270D SIM	0 - 0.5
PAHs	Di-n-octylphthalate	117-84-0	2 / 32	9.3 J FD, Z, C	10 J Z	6 - 63	18 - 190	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PAHs	Fluoranthene	206-44-0	26 / 32	0.78 J Z	330	0.67 - 7	1.7 - 18	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PAHs	Fluorene	86-73-7	10 / 32	0.81 J Z	8.7	0.67 - 7	1.7 - 18	µg/kg	NBZ_DG-562	LL	8270D SIM	0 - 0.5
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	9 / 32	0.67 J Z	770	0.67 - 34	1.7 - 84	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PAHs	Naphthalene	91-20-3	16 / 32	0.75 J Z	70	0.67 - 7	1.7 - 18	µg/kg	NBZ_DG-568	LL	8270D SIM	0 - 0.5
PAHs	N-Nitrosodimethylamine	62-75-9	0 / 32	-	-	0.67 - 7	1.7 - 18	µg/kg	-	-	-	-
PAHs	Phenanthrene	85-01-8	24 / 32	0.68 J Z	160	0.67 - 7	1.7 - 18	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PAHs	Pyrene	129-00-0	23 / 32	0.7 J Z	280	0.67 - 7	1.7 - 18	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PCB/PCTs	Aroclor 1016	12674-11-2	0 / 39	-	-	3.3 - 8.2	17 - 21	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1221	11104-28-2	0 / 39	-	-	5.1 - 6.3	17 - 21	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1232	11141-16-5	0 / 39	-	-	4.1 - 10	17 - 21	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1242	53469-21-9	0 / 39	-	-	4.1 - 10	17 - 21	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1248	12672-29-6	3 / 39	6.7 J S, Z	61	3.3 - 4.1	17 - 21	µg/kg	5B_DG-839	LL	8082A	0 - 0.5
PCB/PCTs	Aroclor 1254	11097-69-1	14 / 39	7.5 J Z	110	4.4 - 5.4	17 - 21	µg/kg	5D_DG-584	LL	8082A	0 - 0.5
PCB/PCTs	Aroclor 1260	11096-82-5	2 / 39	11 J Z	130	3.9 - 4.8	17 - 21	µg/kg	5B_DG-841	LL	8082A	0 - 0.5
PCB/PCTs	Aroclor 1262	37324-23-5	0 / 39	-	-	3.3 - 37	17 - 190	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1268	11100-14-4	0 / 39	-	-	3.3 - 37	17 - 190	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5432	63496-31-1	0 / 39	-	-	9.9 - 12	33 - 41	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5442	12642-23-8	0 / 39	-	-	9.9 - 110	33 - 370	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5460	11126-42-4	4 / 39	19 J Z	30 J Z	9.9 - 12	33 - 41	µg/kg	5B_DG-798	LL	8082A	0 - 0.5
Perchlorate	Perchlorate	14797-73-0	0 / 4	-	-	2.1 - 2.3	5.1 - 5.4	µg/kg	-	-	-	-
Pesticides	4,4'-DDD	72-54-8	0 / 6	-	-	0.33 - 0.95	1.7 - 2.1	µg/kg	-	-	-	-
Pesticides	4,4'-DDE	72-55-9	5 / 6	0.44 J Z	6.5	0.33 - 0.41	1.7 - 2.1	µg/kg	5D_DG-584	LL	8081B	0 - 0.5
Pesticides	4,4'-DDT	50-29-3	3 / 6	0.39 J Z	7.8 J Q	0.35 - 12	1.7 - 12	µg/kg	5D_DG-585	LL	8081B	0 - 0.5
Pesticides	Aldrin	309-00-2	0 / 6	-	-	0.17 - 0.21	0.83 - 1	µg/kg	-	-	-	-
Pesticides	Alpha-Bhc	319-84-6	0 / 6	-	-	0.17 - 0.22	0.83 - 1	µg/kg	-	-	-	-
Pesticides	Beta-Bhc	319-85-7	1 / 6	1.3 J Z	1.3 J Z	0.97 - 1.2	1.9 - 2.4	µg/kg	NBZ_DG-563	LL	8081B	0 - 0.5
Pesticides	Chlordane	57-74-9	0 / 6	-	-	4 - 19	17 - 21	µg/kg	-	-	-	-
Pesticides	Delta-Bhc	319-86-8	0 / 6	-	-	0.45 - 0.56	0.83 - 1	µg/kg	-	-	-	-
Pesticides	Dieldrin	60-57-1	0 / 6	-	-	0.33 - 2.8	1.7 - 2.8	µg/kg	-	-	-	-
Pesticides	Endosulfan I	959-98-8	0 / 6	-	-	0.22 - 0.27	0.83 - 1	µg/kg	-	-	-	-
Pesticides	Endosulfan II	33213-65-9	0 / 6	-	-	0.33 - 0.54	1.7 - 2.1	µg/kg	-	-	-	-
Pesticides	Endosulfan Sulfate	1031-07-8	0 / 6	-	-	0.33 - 0.41	1.7 - 2.1	µg/kg	-	-	-	-
Pesticides	Endrin	72-20-8	0 / 6	-	-	0.34 - 0.83	1.7 - 2.1	µg/kg	-	-	-	-
Pesticides	Endrin Aldehyde	7421-93-4	1 / 6	0.79 J Z	0.79 J Z	0.33 - 0.95	1.7 - 2.1	µg/kg	NBZ_DG-558	LL	8081B	0 - 0.5

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Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Lab of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration (feet)
Pesticides	Endrin Ketone	53494-70-5	0 / 6	-	-	0.6 - 0.74	1.8 - 2.2	µg/kg	-	-	-	-
Pesticides	Gamma-Bhc (Lindane)	58-89-9	2 / 6	0.21 J Z	0.34 J Z	0.17 - 0.21	0.83 - 1	µg/kg	NBZ_DG-562	LL	8081B	0 - 0.5
Pesticides	Heptachlor	76-44-8	0 / 6	-	-	0.17 - 0.21	0.83 - 1	µg/kg	-	-	-	-
Pesticides	Heptachlor Epoxide	1024-57-3	1 / 6	0.24 J Z	0.24 J Z	0.17 - 0.53	0.83 - 1	µg/kg	NBZ_DG-562	LL	8081B	0 - 0.5
Pesticides	Methoxychlor	72-43-5	0 / 6	-	-	1.7 - 2.1	6.7 - 8.3	µg/kg	-	-	-	-
Pesticides	Mirex	2385-85-5	0 / 6	-	-	0.35 - 0.43	1.7 - 2.1	µg/kg	-	-	-	-
Pesticides	Technical Toxaphene	8001-35-2	0 / 6	-	-	14 - 17	33 - 41	µg/kg	-	-	-	-
pH	pH	pH	33 / 33	5.9	8.74	0.01 - 0.01	0.01 - 0.01	pH	5C_DG-757	LL	9045M	0 - 0.5
TPH-EFH	EFH (C12-C14)	PHCC12C14	1 / 59	2.4 J Z	2.4 J Z	2 - 11	5 - 26	mg/kg	NBZ_DG-565	LL	8015M	0 - 0.5
TPH-EFH	EFH (C15-C20)	PHCC15C20	35 / 59	2.1 J Z 2.1 J Z	27	2 - 11	5 - 26	mg/kg	NBZ_DG-568	LL	8015M	0 - 0.5
TPH-EFH	EFH (C21-C30)	PHCC21C30	54 / 59	4.4 J Z	210	2 - 11	5 - 26	mg/kg	NBZ_DG-566	LL	8015M	0 - 0.5
TPH-EFH	EFH (C30-C40)	PHCC30C40	54 / 59	9.8 J Z	400	4 - 21	10 - 53	mg/kg	NBZ_DG-566	LL	8015M	0 - 0.5
TPH-EFH	EFH (C8-C11)	PHCC8C11	4 / 59	2.1 J Z	13 J Z	2 - 11	5 - 26	mg/kg	5D_DG-612	LL	8015M	0 - 0.5
TPH-EFH-SilicaGel	EFH (C12-C14) w/ Silica Gel	PHCC12C14SILICA	0 / 55	-	-	2 - 2.5	5 - 6.2	mg/kg	-	-	-	-
TPH-EFH-SilicaGel	EFH (C15-C20) w/ Silica Gel	PHCC15C20SILICA	1 / 55	5.5 J L	5.5 J L	2 - 2.5	5 - 6.2	mg/kg	NBZ_DG-566	LL	8015M	0 - 0.5
TPH-EFH-SilicaGel	EFH (C21-C30) w/ Silica Gel	PHCC21C30SILICA	35 / 55	2.1 J L, Z	61 J L	2 - 2.5	5 - 6.2	mg/kg	NBZ_DG-566	LL	8015M	0 - 0.5
TPH-EFH-SilicaGel	EFH (C30-C40) w/ Silica Gel	PHCC30C40SILICA	26 / 55	4.2 J Z	100	4 - 5	9.9 - 12	mg/kg	NBZ_DG-566	LL	8015M	0 - 0.5
TPH-EFH-SilicaGel	EFH (C8-C11) w/ Silica Gel	PHCC8C11SILICA	0 / 55	-	-	2 - 2.5	5 - 6.2	mg/kg	-	-	-	-

Notes
LL - Eurofins Lancaster Laboratory
µg/kg- microgram per kilogram
mg/kg - milligram per kilogram
ng/kg - nanogram per kilogram
J - Result is an estimated value
% - percent
CAS = chemical abstract service
TPH = total petroleum hydrocarbon
GRO = gasoline range organic
EFH = extractable fuel hydrocarbon
HpCDF = heptachlorodibenzofuran
HxCDF = hexachlorodibenzofuran
PeCDF = pentachlorodibenzofuran
TCDD = tetrachlorodibenzodioxin
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
2,4,5-T = 2,4,5-trichlorophenoxyacetic acid
2,4-D = 2-4-dichlorophenoxyacetic acid
2,4-DB = 2,4-dichlorophenoxy butyric acid
MCPA = 2-methyl-4-chlorophenoxyacetic acid
MCPP = methylchlorophenoxypropionic acid
PAH = polyaromatic hydrocarbon
PCB/PCT = polychlorinated biphenyls/polychlorinated
SVOC = semivolatile organic compound
VOC = volatile organic compound
Specific concentration qualifiers are defined in Appendix A

Table 3-2
Summary of Analytical Results for Chemicals - Validated Data
Subsurface Soils - Go-Backs, Trenches and Soil Vapor Locations - Phase 3

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Lab of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration (feet)
1,4-Dioxane	1,4-Dioxane	123-91-1	0 / 1	-	-	5.5 - 5.5	16 - 16	µg/kg	-	-	-	-
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	54 / 79	0.393 J Z	1210	0.0076 - 0.228	4.87 - 5.77	ng/kg	5C_DG-511	LL	1613B	2 - 3
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	36 / 79	0.244 J Z	137	0.00241 - 0.0789	4.87 - 5.77	ng/kg	5C_DG-511	LL	1613B	2 - 3
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	10 / 79	0.0495 J Z	11.7	0.00434 - 0.14	4.87 - 5.77	ng/kg	5C_DG-511	LL	1613B	2 - 3
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	26 / 79	0.0213 J Z	10.7	0.00863 - 0.138	4.87 - 5.77	ng/kg	5C_DG-511	LL	1613B	2 - 3
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	18 / 79	0.0237 J Z	3.42 J Z	0.00533 - 0.155	4.87 - 5.77	ng/kg	5C_DG-511	LL	1613B	2 - 3
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	42 / 79	0.0248 J Z	54.7	0.00865 - 0.138	4.87 - 5.77	ng/kg	5C_DG-511	LL	1613B	2 - 3
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	24 / 79	0.0175 J Z	4.44 J Z	0.00459 - 0.134	4.87 - 5.77	ng/kg	5C_DG-511	LL	1613B	2 - 3
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	46 / 79	0.0395 J Z	21.9	0.00889 - 0.141	4.87 - 5.77	ng/kg	5C_DG-511	LL	1613B	2 - 3
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	20 / 79	0.0302 J Z	0.982 J Z	0.00576 - 0.178	4.87 - 5.77	ng/kg	5B_DG-699	LL	1613B	0.5
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	21 / 79	0.0356 J Z	14.8	0.00319 - 0.0803	4.87 - 5.77	ng/kg	8_DG-611	LL	1613B	0.5
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	26 / 79	0.0232 J FD, Z	4.52 J Z	0.00653 - 0.236	4.87 - 5.77	ng/kg	5C_DG-511	LL	1613B	2 - 3
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	19 / 79	0.0215 J Z	9.77	0.00489 - 0.148	4.87 - 5.77	ng/kg	5C_DG-511	LL	1613B	2 - 3
Dioxins	2,3,4,7,8-PECDF	57117-31-4	11 / 79	0.0787 J Z	1.5 J Z	0.00338 - 0.0865	4.87 - 5.77	ng/kg	5C_DG-511	LL	1613B	2 - 3
Dioxins	2,3,7,8-TCDD	1746-01-6	15 / 79	0.0572 J Z	1.99	0.00729 - 0.149	0.974 - 1.15	ng/kg	5A_DG-730	LL	1613B	0.5
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	29 / 79	0.0245 J Z	1.49	0.00531 - 0.147	0.974 - 1.15	ng/kg	6_DG-686	LL	1613B	0.5
Dioxins	OCDD	3268-87-9	68 / 79	1.62 J Z	10200 J *#	0.00694 - 0.169	9.74 - 11.5	ng/kg	5C_DG-511	LL	1613B	2 - 3
Dioxins	OCDF	39001-02-0	37 / 79	0.44 J Z	257	0.0061 - 0.128	9.74 - 11.5	ng/kg	5C_DG-511	LL	1613B	2 - 3
Energetics	1,3,5-Trinitrobenzene	99-35-4	0 / 12	-	-	100 - 110	310 - 320	µg/kg	-	-	-	-
Energetics	2,4,6-Trinitrotoluene	118-96-7	0 / 12	-	-	100 - 110	310 - 320	µg/kg	-	-	-	-
Energetics	2,4-Diamino-6-nitrotoluene	6629-29-4	0 / 12	-	-	200 - 210	410 - 430	µg/kg	-	-	-	-
Energetics	2,4-Dinitrotoluene	121-14-2	0 / 12	-	-	100 - 110	310 - 320	µg/kg	-	-	-	-
Energetics	2,6-Diamino-4-nitrotoluene	59229-75-3	0 / 12	-	-	200 - 210	410 - 430	µg/kg	-	-	-	-
Energetics	2,6-Dinitrotoluene	606-20-2	0 / 12	-	-	100 - 110	310 - 320	µg/kg	-	-	-	-
Energetics	2-Amino-4,6-Dinitrotoluene	35572-78-2	0 / 12	-	-	100 - 110	310 - 320	µg/kg	-	-	-	-
Energetics	2-Nitrotoluene	88-72-2	0 / 12	-	-	200 - 210	310 - 320	µg/kg	-	-	-	-
Energetics	3-Nitrotoluene	99-08-1	0 / 12	-	-	260 - 270	310 - 320	µg/kg	-	-	-	-
Energetics	4-Amino-2,6-Dinitrotoluene	19406-51-0	0 / 12	-	-	150 - 160	310 - 320	µg/kg	-	-	-	-
Energetics	4-Nitrotoluene	99-99-0	0 / 12	-	-	200 - 210	310 - 320	µg/kg	-	-	-	-
Energetics	HMX	2691-41-0	0 / 12	-	-	200 - 210	410 - 430	µg/kg	-	-	-	-
Energetics	M-Dinitrobenzene	99-65-0	0 / 12	-	-	100 - 110	310 - 320	µg/kg	-	-	-	-
Energetics	Nitrobenzene	98-95-3	0 / 12	-	-	100 - 110	310 - 320	µg/kg	-	-	-	-
Energetics	Nitroglycerin	55-63-0	0 / 12	-	-	1000 - 3800	2000 - 3800	µg/kg	-	-	-	-
Energetics	PETN	78-11-5	0 / 12	-	-	1000 - 1100	2000 - 2100	µg/kg	-	-	-	-
Energetics	RDX	121-82-4	0 / 12	-	-	130 - 140	310 - 320	µg/kg	-	-	-	-
Energetics	Tetryl	479-45-8	0 / 12	-	-	160 - 170	310 - 320	µg/kg	-	-	-	-
Formaldehyde	Formaldehyde	50-00-0	0 / 3	-	-	1300 - 1400	2100 - 2300	µg/kg	-	-	-	-
Glycols	Diethylene Glycol	111-46-6	0 / 12	-	-	5.1 - 5.3	10 - 11	mg/kg	-	-	-	-
Glycols	Ethylene Glycol	107-21-1	0 / 12	-	-	5.1 - 5.3	10 - 11	mg/kg	-	-	-	-
Glycols	Propylene Glycol	57-55-6	0 / 12	-	-	5.1 - 5.3	10 - 11	mg/kg	-	-	-	-
Glycols	Triethylene Glycol	112-27-6	0 / 11	-	-	5.1 - 5.3	10 - 11	mg/kg	-	-	-	-
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	0 / 11	-	-	45 - 47	92 - 96	µg/kg	-	-	-	-
Herbicides	2,4,5-T	93-76-5	0 / 12	-	-	0.84 - 0.87	1.7 - 1.8	µg/kg	-	-	-	-
Herbicides	2,4-D	94-75-7	0 / 12	-	-	12 - 13	37 - 38	µg/kg	-	-	-	-
Herbicides	2,4-DB	94-82-6	4 / 12	15 J Z 15 J Z	19 19	6.3 - 16	17 - 18	µg/kg	5C_DG-655 5C_DG-653	LL LL	8151A 8151A	0.5 0.5
Herbicides	Dicamba	1918-00-9	0 / 12	-	-	4.1 - 4.3	12 - 13	µg/kg	-	-	-	-
Herbicides	Dichlorprop	120-36-5	0 / 12	-	-	9.2 - 9.6	17 - 18	µg/kg	-	-	-	-
Herbicides	Dinitrobutyl Phenol	88-85-7	0 / 4	-	-	9.4 - 9.4	25 - 25	µg/kg	-	-	-	-
Herbicides	MCPA	94-74-6	0 / 12	-	-	780 - 810	2600 - 2700	µg/kg	-	-	-	-
Herbicides	MCPP	93-65-2	0 / 12	-	-	770 - 800	2600 - 2700	µg/kg	-	-	-	-
Herbicides	Silvex (2,4,5-TP)	93-72-1	0 / 12	-	-	0.77 - 0.8	1.7 - 1.8	µg/kg	-	-	-	-
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	6 / 12	0.29 J Z	0.62	0.14 - 0.15	0.41 - 0.44	mg/kg	5C_DG-651	LL	7199	0.5
Mercury	Mercury	7439-97-6	51 / 90	0.0103 J Z	0.313	0.0096 - 0.0116	0.016 - 0.0193	mg/kg	5A_DG-730	LL	7471B	6
Metals	Aluminum	7429-90-5	90 / 90	8420	31500	7.02 - 8.65	39 - 48	mg/kg	5B_DG-836	LL	6010C	15 - 16
Metals	Antimony	7440-36-0	0 / 90	-	-	0.721 - 0.887	3.9 - 4.8	mg/kg	-	-	-	-
Metals	Arsenic	7440-38-2	87 / 90	1.24 J Z	35.4	0.682 - 0.839	3.9 - 4.8	mg/kg	5B_DG-842	LL	6010C	4 - 5

Table 3-2
Summary of Analytical Results for Chemicals - Validated Data
Subsurface Soils - Go-Backs, Trenches and Soil Vapor Locations - Phase 3

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Lab of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration (feet)
Metals	Barium	7440-39-3	90 / 90	55.5 J Q	247 J FD, E, Q	0.0321 - 0.0396	0.974 - 1.2	mg/kg	5A_DG-874	LL	6010C	4 - 5
Metals	Beryllium	7440-41-7	90 / 90	0.313 J Z	2.19	0.0652 - 0.0803	0.974 - 1.2	mg/kg	NBZ_DG-581	LL	6010C	9 - 10
Metals	Boron	7440-42-8	58 / 90	0.927 J Z	18	0.818 - 4.46	9.74 - 53.1	mg/kg	8_DG-611	LL	6010C	0.5
Metals	Cadmium	7440-43-9	35 / 90	0.103 J Z	0.817 J Z	0.074 - 0.0911	0.974 - 1.2	mg/kg	6_DG-686	LL	6010C	0.5
Metals	Calcium	7440-70-2	90 / 90	1850	53400 J E	3.25 - 4	19.5 - 24	mg/kg	8_DG-611	LL	6010C	0.5
Metals	Chromium	7440-47-3	90 / 90	9.38	42.3 J Q	0.156 - 0.192	2.92 - 3.6	mg/kg	5D_DG-585	LL	6010C	4 - 5
Metals	Cobalt	7440-48-4	90 / 90	3.32	12.9 12.9	0.0964 - 0.119	0.974 - 1.2	mg/kg	NBZ_DG-581 NBZ_DG-581	LL LL	6010C 6010C	13 - 14 4 - 5
Metals	Copper	7440-50-8	90 / 90	4.23	34.6	0.282 - 0.348	1.95 - 2.4	mg/kg	5B_DG-841	LL	6010C	9 - 10
Metals	Iron	7439-89-6	90 / 90	12400	60400	3.53 - 20.3	39 - 224	mg/kg	NBZ_DG-581	LL	6010C	9 - 10
Metals	Lead	7439-92-1	90 / 90	2.56 J E, Z	24.4	0.487 - 0.6	2.92 - 3.6	mg/kg	5B_DG-841	LL	6010C	9 - 10
Metals	Lithium	7439-93-2	90 / 90	11.3	69.2	0.33 - 0.41	3.9 - 4.8	mg/kg	5B_DG-841	LL	6010C	9 - 10
Metals	Magnesium	7439-95-4	90 / 90	3240	11900	1.63 - 2	9.74 - 12	mg/kg	5B_DG-841	LL	6010C	9 - 10
Metals	Manganese	7439-96-5	90 / 90	167	681	0.0808 - 0.0995	0.974 - 1.2	mg/kg	5C_DG-757	LL	6010C	8 - 9
Metals	Molybdenum	7439-98-7	40 / 90	0.174 J Z	0.877 J Z	0.166 - 0.204	1.95 - 2.4	mg/kg	5B_DG-842	LL	6010C	4 - 5
Metals	Nickel	7440-02-0	90 / 90	5.42	32.9 J A	0.127 - 0.156	1.95 - 2.4	mg/kg	5D_DG-585	LL	6010C	4 - 5
Metals	Phosphorus	7723-14-0	90 / 90	126	776	2.81 - 3.47	9.74 - 12	mg/kg	NBZ_DG-581	LL	6010C	13 - 14
Metals	Potassium	7440-09-7	90 / 90	1290 J Q	6150 J Q	8.12 - 10	97.4 - 120	mg/kg	8_DG-611	LL	6010C	0.5
Metals	Selenium	7782-49-2	67 / 90	0.117 J Z	0.98	0.0974 - 0.12	0.39 - 0.48	mg/kg	NBZ_DG-581	LL	6020A	9 - 10
Metals	Silver	7440-22-4	71 / 90	0.0271 J Z	2.47	0.0253 - 0.0312	0.195 - 0.24	mg/kg	5A_DG-730	LL	6020A	0.5
Metals	Sodium	7440-23-5	90 / 90	64.9 J Z	1890	16.3 - 20	97.4 - 120	mg/kg	5B_DG-843	LL	6010C	4 - 5
Metals	Strontium	7440-24-6	90 / 90	9.45	108	0.0662 - 0.179	0.39 - 1.05	mg/kg	8_DG-611	LL	6020A	0.5
Metals	Thallium	7440-28-0	90 / 90	0.126 J Z	0.524	0.0292 - 0.036	0.195 - 0.24	mg/kg	NBZ_DG-581	LL	6020A	9 - 10
Metals	Tin	7440-31-5	0 / 90	-	-	0.214 - 0.264	9.74 - 12	mg/kg	-	-	-	-
Metals	Titanium	7440-32-6	90 / 90	535	2170	0.166 - 0.903	0.974 - 5.31	mg/kg	5B_DG-841	LL	6010C	9 - 10
Metals	Vanadium	7440-62-2	90 / 90	20.9	78.8	0.127 - 0.156	0.974 - 1.2	mg/kg	NBZ_DG-581	LL	6010C	9 - 10
Metals	Zinc	7440-66-6	90 / 90	39.6	210 J E	0.195 - 0.24	3.9 - 4.8	mg/kg	5A_DG-587	LL	6010C	0.5
Metals	Zirconium	7440-67-7	28 / 90	1.04 J Z	9.28	0.818 - 1.01	4.87 - 6	mg/kg	NBZ_DG-581	LL	6010C	13 - 14
Moisture Content	Moisture	MOIST	167 / 167	1.2	17.5	0.1 - 0.1	0.1 - 0.1	%	8SV_DG-517	LL	160.3M	10 - 11
PAHs	1-Methylnaphthalene	90-12-0	14 / 91	0.83 J Z	280	0.67 - 0.8	1.7 - 2	µg/kg	5B_DG-699	LL	8270D SIM	0.5
PAHs	2-Methylnaphthalene	91-57-6	20 / 91	0.71 J Z	250	0.67 - 0.8	1.7 - 2	µg/kg	5B_DG-699	LL	8270D SIM	0.5
PAHs	Acenaphthene	83-32-9	5 / 91	1.2 J Z	29	0.67 - 0.8	1.7 - 2	µg/kg	5B_DG-839	LL	8270D SIM	15.5 - 16.5
PAHs	Acenaphthylene	208-96-8	5 / 91	0.35 J Z	8.8	0.34 - 0.4	1.7 - 2	µg/kg	5B_DG-699	LL	8270D SIM	0.5
PAHs	Anthracene	120-12-7	20 / 91	0.49 J FD, Z	130	0.34 - 0.4	1.7 - 2	µg/kg	5B_DG-839	LL	8270D SIM	15.5 - 16.5
PAHs	Benzo(a)anthracene	56-55-3	26 / 91	0.71 J Z	110	0.67 - 3	1.7 - 18	µg/kg	5B_DG-839	LL	8270D SIM	15.5 - 16.5
PAHs	Benzo(a)pyrene	50-32-8	27 / 91	0.72 J Z	48	0.67 - 4	1.7 - 18	µg/kg	5B_DG-839	LL	8270D SIM	15.5 - 16.5
PAHs	Benzo(b)fluoranthene	205-99-2	36 / 91	0.72 J Z	83	0.67 - 4	1.7 - 18	µg/kg	5B_DG-839	LL	8270D SIM	15.5 - 16.5
PAHs	Benzo(e)pyrene	192-97-2	9 / 91	4.1 J L, Z	31	3.4 - 4	17 - 20	µg/kg	5B_DG-839	LL	8270D SIM	15.5 - 16.5
PAHs	Benzo(g,h,i)perylene	191-24-2	22 / 91	0.74 J Z	11	0.67 - 3	1.7 - 18	µg/kg	5B_DG-839	LL	8270D SIM	15.5 - 16.5
PAHs	Benzo(k)fluoranthene	207-08-9	20 / 91	0.75 J Z	43	0.67 - 0.8	1.7 - 2	µg/kg	5B_DG-839	LL	8270D SIM	15.5 - 16.5
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	24 / 91	8.2 J Z 8.2 J Z	87	6.1 - 7.2	18 - 22	µg/kg	5C_DG-748	LL	8270D SIM	4 - 5
PAHs	Butylbenzylphthalate	85-68-7	2 / 91	6.4 J Z	7.3 J Z	6.1 - 7.2	18 - 22	µg/kg	5B_DG-529	LL	8270D SIM	0.5
PAHs	Chrysene	218-01-9	45 / 91	0.38 J Z	100	0.34 - 3	1.7 - 18	µg/kg	5B_DG-839	LL	8270D SIM	15.5 - 16.5
PAHs	Dibenzo(a,h)anthracene	53-70-3	10 / 91	0.75 J Z	4.3	0.67 - 0.8	1.7 - 2	µg/kg	5B_DG-839	LL	8270D SIM	15.5 - 16.5
PAHs	Diethylphthalate	84-66-2	1 / 91	7.2 J Z	7.2 J Z	6.1 - 7.2	18 - 22	µg/kg	5B_DG-699	LL	8270D SIM	0.5
PAHs	Dimethylphthalate	131-11-3	0 / 91	-	-	6.1 - 7.2	18 - 22	µg/kg	-	-	-	-
PAHs	Di-n-butylphthalate	84-74-2	2 / 91	6.2 J Z	7.6 J Z	6.1 - 7.2	18 - 22	µg/kg	6_DG-686	LL	8270D SIM	0.5
PAHs	Di-n-octylphthalate	117-84-0	2 / 91	7.9 J Z	8.1 J Z	6.1 - 7.2	18 - 22	µg/kg	5A_DG-877	LL	8270D SIM	3 - 4
PAHs	Fluoranthene	206-44-0	38 / 91	0.7 J Z	470	0.67 - 7.7	1.7 - 19	µg/kg	5B_DG-839	LL	8270D SIM	15.5 - 16.5
PAHs	Fluorene	86-73-7	8 / 91	0.79 J Z	19	0.67 - 0.8	1.7 - 2	µg/kg	5B_DG-839	LL	8270D SIM	15.5 - 16.5
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	17 / 91	0.74 J Z	12	0.67 - 0.8	1.7 - 2	µg/kg	5B_DG-839	LL	8270D SIM	15.5 - 16.5
PAHs	Morpholine	110-91-8	0 / 8	-	-	20 - 22	20 - 22	µg/kg	-	-	-	-
PAHs	Naphthalene	91-20-3	24 / 91	0.69 J Z	76	0.67 - 0.8	1.7 - 2	µg/kg	5B_DG-699	LL	8270D SIM	0.5
PAHs	N-Nitrosodimethylamine	62-75-9	1 / 91	4.6	4.6	0.67 - 0.8	1.7 - 2	µg/kg	5C_DG-503	LL	8270D SIM	5
PAHs	Phenanthrene	85-01-8	37 / 91	0.7 J FD, Z	700	0.67 - 7.7	1.7 - 19	µg/kg	5B_DG-699	LL	8270D SIM	0.5
PAHs	Pyrene	129-00-0	40 / 91	0.71 J Z	550	0.67 - 7.7	1.7 - 19	µg/kg	5B_DG-839	LL	8270D SIM	15.5 - 16.5
PCB/PCTs	Aroclor 1016	12674-11-2	0 / 91	-	-	3.3 - 4	17 - 20	µg/kg	-	-	-	-

Table 3-2
Summary of Analytical Results for Chemicals - Validated Data
Subsurface Soils - Go-Backs, Trenches and Soil Vapor Locations - Phase 3

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Lab of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration (feet)
PCB/PCTs	Aroclor 1221	11104-28-2	0 / 91	-	-	5.1 - 6.1	17 - 20	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1232	11141-16-5	0 / 91	-	-	4.1 - 4.9	17 - 20	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1242	53469-21-9	0 / 91	-	-	4.1 - 4.9	17 - 20	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1248	12672-29-6	4 / 91	7.8 J FD, Z	31	3.3 - 4	17 - 20	µg/kg	5B_DG-839	LL	8082A	9 - 10
PCB/PCTs	Aroclor 1254	11097-69-1	12 / 91	6.5 J Z	99	4.4 - 5.3	17 - 20	µg/kg	8_DG-611	LL	8082A	0.5
PCB/PCTs	Aroclor 1260	11096-82-5	6 / 91	6.9 J Z	31	3.9 - 4.7	17 - 20	µg/kg	5C_DG-605	LL	8082A	0.5
PCB/PCTs	Aroclor 1262	37324-23-5	0 / 91	-	-	3.3 - 4	17 - 20	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1268	11100-14-4	0 / 91	-	-	3.3 - 4	17 - 20	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5432	63496-31-1	0 / 91	-	-	10 - 12	33 - 40	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5442	12642-23-8	0 / 91	-	-	10 - 12	33 - 40	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5460	11126-42-4	1 / 91	41	41	10 - 12	33 - 40	µg/kg	5A_DG-730	LL	8082A	0.5
Perchlorate	Perchlorate	14797-73-0	0 / 23	-	-	2.1 - 2.3	5.1 - 5.6	µg/kg	-	-	-	-
Pesticides	4,4'-DDD	72-54-8	1 / 24	1.4 J Z	1.4 J Z	0.33 - 39	1.7 - 39	µg/kg	5B_DG-707	LL	8081B	0.5
Pesticides	4,4'-DDE	72-55-9	4 / 24	1.1 J Z, C	550	0.34 - 17	1.7 - 86	µg/kg	5B_DG-707	LL	8081B	0.5
Pesticides	4,4'-DDT	50-29-3	7 / 24	0.4 J Z	45 J Z	0.36 - 18	1.7 - 86	µg/kg	5B_DG-707	LL	8081B	0.5
Pesticides	Aldrin	309-00-2	0 / 24	-	-	0.17 - 0.88	0.84 - 4.3	µg/kg	-	-	-	-
Pesticides	Alpha-Bhc	319-84-6	0 / 24	-	-	0.17 - 0.88	0.84 - 4.3	µg/kg	-	-	-	-
Pesticides	Beta-Bhc	319-85-7	1 / 24	1.4 J Z	1.4 J Z	0.97 - 4.9	1.9 - 9.8	µg/kg	5C_DG-655	LL	8081B	0.5
Pesticides	Chlordane	57-74-9	0 / 24	-	-	4 - 21	17 - 88	µg/kg	-	-	-	-
Pesticides	Delta-Bhc	319-86-8	0 / 24	-	-	0.46 - 2.3	0.84 - 4.3	µg/kg	-	-	-	-
Pesticides	Dieldrin	60-57-1	1 / 24	7	7	0.33 - 1.9	1.7 - 8.8	µg/kg	5B_DG-707	LL	8081B	0.5
Pesticides	Endosulfan I	959-98-8	2 / 24	0.39 J Z	2.7 J Z	0.22 - 1.1	0.84 - 4.3	µg/kg	5B_DG-699	LL	8081B	0.5
Pesticides	Endosulfan II	33213-65-9	1 / 24	0.56 J Z	0.56 J Z	0.33 - 1.7	1.7 - 8.8	µg/kg	5B_DG-707	LL	8081B	0.5
Pesticides	Endosulfan Sulfate	1031-07-8	2 / 24	1.1 J Z	4.6 J Z	0.33 - 1.7	1.7 - 8.8	µg/kg	5B_DG-699	LL	8081B	0.5
Pesticides	Endrin	72-20-8	0 / 24	-	-	0.33 - 3	1.7 - 8.8	µg/kg	-	-	-	-
Pesticides	Endrin Aldehyde	7421-93-4	0 / 24	-	-	0.33 - 1.7	1.7 - 8.8	µg/kg	-	-	-	-
Pesticides	Endrin Ketone	53494-70-5	1 / 24	0.92 J Z	0.92 J Z	0.61 - 3.1	1.8 - 9.3	µg/kg	5B_DG-707	LL	8081B	0.5
Pesticides	Gamma-Bhc (Lindane)	58-89-9	0 / 24	-	-	0.17 - 0.88	0.84 - 4.3	µg/kg	-	-	-	-
Pesticides	Heptachlor	76-44-8	2 / 24	0.54 J Z	1.2 J Z	0.17 - 0.88	0.84 - 4.3	µg/kg	5B_DG-699	LL	8081B	0.5
Pesticides	Heptachlor Epoxide	1024-57-3	0 / 24	-	-	0.17 - 0.88	0.84 - 4.3	µg/kg	-	-	-	-
Pesticides	Methoxychlor	72-43-5	1 / 24	3.4 J Z	3.4 J Z	1.7 - 8.8	6.8 - 35	µg/kg	5B_DG-699	LL	8081B	3
Pesticides	Mirex	2385-85-5	0 / 24	-	-	0.35 - 1.8	1.7 - 8.8	µg/kg	-	-	-	-
Pesticides	Technical Toxaphene	8001-35-2	0 / 24	-	-	14 - 190	33 - 190	µg/kg	-	-	-	-
pH	pH	pH	90 / 90	4.52	11.9	0.01 - 0.01	0.01 - 0.01	pH	5B_DG-839	LL	9045M	15.5 - 16.5
SVOC	1,1'-Biphenyl	92-52-4	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	1,2,4-Trichlorobenzene	120-82-1	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	1,2-Dichlorobenzene	95-50-1	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	1,2-Diphenylhydrazine	122-66-7	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	1,3-Dichlorobenzene	541-73-1	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	1,4-Dichlorobenzene	106-46-7	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	2,4,5-Trichlorophenol	95-95-4	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	2,4,6-Trichlorophenol	88-06-2	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	2,4-Dichlorophenol	120-83-2	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	2,4-Dimethylphenol	105-67-9	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	2,4-Dinitrophenol	51-28-5	0 / 12	-	-	310 - 320	670 - 1100	µg/kg	-	-	-	-
SVOC	2,6-Dichlorophenol	87-65-0	0 / 11	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	2-butoxyethanol	111-76-2	0 / 4	-	-	170 - 180	170 - 180	µg/kg	-	-	-	-
SVOC	2-Chloronaphthalene	91-58-7	0 / 12	-	-	7 - 7	34 - 35	µg/kg	-	-	-	-
SVOC	2-Chlorophenol	95-57-8	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	2-Methylphenol	95-48-7	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	2-Nitroaniline	88-74-4	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	2-Nitrophenol	88-75-5	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	2-phenoxyethanol	122-99-6	0 / 4	-	-	170 - 180	170 - 180	µg/kg	-	-	-	-
SVOC	3,3'-Dichlorobenzidine	91-94-1	0 / 12	-	-	100 - 110	340 - 350	µg/kg	-	-	-	-
SVOC	3,5-Dimethylphenol	108-68-9	0 / 12	-	-	34 - 35	170 - 180	µg/kg	-	-	-	-
SVOC	3-Nitroaniline	99-09-2	0 / 12	-	-	68 - 71	170 - 180	µg/kg	-	-	-	-
SVOC	4,6-Dinitro-2-methylphenol	534-52-1	0 / 12	-	-	170 - 180	510 - 530	µg/kg	-	-	-	-
SVOC	4-Bromophenyl-phenylether	101-55-3	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	4-Chloro-3-methylphenol	59-50-7	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-

Table 3-2
Summary of Analytical Results for Chemicals - Validated Data
Subsurface Soils - Go-Backs, Trenches and Soil Vapor Locations - Phase 3

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Lab of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration (feet)
SVOC	4-Chloroaniline	106-47-8	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	4-Chlorophenyl-phenylether	7005-72-3	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	4-Methylphenol	106-44-5	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	4-Nitroaniline	100-01-6	0 / 12	-	-	68 - 71	170 - 180	µg/kg	-	-	-	-
SVOC	4-Nitrophenol	100-02-7	0 / 12	-	-	170 - 180	510 - 530	µg/kg	-	-	-	-
SVOC	Aniline	62-53-3	0 / 12	-	-	170 - 180	340 - 530	µg/kg	-	-	-	-
SVOC	Benzidine	92-87-5	0 / 12	-	-	710 - 740	1700 - 3500	µg/kg	-	-	-	-
SVOC	Benzo(a)anthracene	56-55-3	2 / 2	4 J Z 4 J Z	4 J Z 4 J Z	3 - 3	18 - 18	µg/kg	5C_DG-651 5C_DG-651	LL LL	8270D 8270D	0.5 5
SVOC	Benzo(a)pyrene	50-32-8	5 / 5	4 J Z 4 J Z 4 J Z 4 J Z 4 J Z	4 J Z 4 J Z 4 J Z 4 J Z 4 J Z	3 - 4	17 - 18	µg/kg	5C_DG-651 5C_DG-651 5C_DG-651 5C_DG-651 5C_DG-653	LL LL LL LL LL	8270D 8270D 8270D 8270D 8270D	0.5 10 15 5 0.5
SVOC	Benzo(b)fluoranthene	205-99-2	5 / 5	4 J Z	5 J Z 5 J Z 5 J Z 5 J Z	3 - 4	17 - 18	µg/kg	5C_DG-651 5C_DG-651 5C_DG-651 5C_DG-653	LL LL LL LL	8270D 8270D 8270D 8270D	0.5 10 5 0.5
SVOC	Benzo(g,h,i)perylene	191-24-2	1 / 1	4 J Z	4 J Z	3 - 3	18 - 18	µg/kg	5C_DG-651	LL	8270D	0.5
SVOC	Benzoic Acid	65-85-0	0 / 12	-	-	170 - 180	510 - 530	µg/kg	-	-	-	-
SVOC	Benzyl Alcohol	100-51-6	0 / 12	-	-	170 - 180	340 - 530	µg/kg	-	-	-	-
SVOC	bis(2-chloroethoxy)methane	111-91-1	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	bis(2-chloroethyl) ether	111-44-4	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	bis(2-chloroisopropyl) ether	39638-32-9	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	Carbazole	86-74-8	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	Chrysene	218-01-9	1 / 1	5 J Z	5 J Z	3 - 3	18 - 18	µg/kg	5C_DG-651	LL	8270D	0.5
SVOC	Dibenzofuran	132-64-9	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	Diphenylamine	NDPA122-39-4	0 / 12	-	-	34 - 35	170 - 180	µg/kg	-	-	-	-
SVOC	Fluoranthene	206-44-0	2 / 2	4 J Z 4 J Z	4 J Z 4 J Z	3 - 3	18 - 18	µg/kg	5C_DG-651 5C_DG-651	LL LL	8270D 8270D	0.5 5
SVOC	Hexachlorobenzene	118-74-1	0 / 12	-	-	3 - 4	17 - 18	µg/kg	-	-	-	-
SVOC	Hexachlorobutadiene	87-68-3	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	Hexachlorocyclopentadiene	77-47-4	0 / 12	-	-	170 - 180	510 - 530	µg/kg	-	-	-	-
SVOC	Hexachloroethane	67-72-1	0 / 12	-	-	34 - 35	170 - 180	µg/kg	-	-	-	-
SVOC	Isophorone	78-59-1	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	Nitrobenzene	98-95-3	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	N-Nitroso-di-n-propylamine	621-64-7	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	N-Nitrosodiphenylamine	86-30-6	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	Pentachlorophenol	87-86-5	0 / 12	-	-	34 - 35	170 - 180	µg/kg	-	-	-	-
SVOC	Phenanthrene	85-01-8	1 / 1	4 J Z	4 J Z	3 - 3	18 - 18	µg/kg	5C_DG-651	LL	8270D	5
SVOC	Phenol	108-95-2	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	Pyrene	129-00-0	2 / 2	4 J Z	5 J Z	3 - 3	18 - 18	µg/kg	5C_DG-651	LL	8270D	0.5
SVOC	Pyridine	110-86-1	0 / 12	-	-	68 - 71	170 - 180	µg/kg	-	-	-	-
SVOC	Tetralin	119-64-2	0 / 4	-	-	34 - 35	170 - 180	µg/kg	-	-	-	-
Terphenyls	m-Terphenyl	92-06-8	1 / 12	0.51 J Q	0.51 J Q	0.068 - 0.071	0.17 - 0.18	mg/kg	5C_DG-655	LL	8015B	0.5
Terphenyls	o-Terphenyl	84-15-1	0 / 12	-	-	0.068 - 0.071	0.17 - 0.18	mg/kg	-	-	-	-
Terphenyls	p-Terphenyl	92-94-4	1 / 12	0.98 J Q	0.98 J Q	0.068 - 0.071	0.17 - 0.18	mg/kg	5C_DG-655	LL	8015B	0.5
TPH-EFH	EFH (C12-C14)	PHCC12C14	2 / 95	6.8	7.6	2 - 11	5.1 - 26	mg/kg	5B_DG-699	LL	8015M	0.5
TPH-EFH	EFH (C15-C20)	PHCC15C20	11 / 95	2.3 J Z	36	2 - 11	5.1 - 26	mg/kg	5B_DG-699	LL	8015M	0.5
TPH-EFH	EFH (C21-C30)	PHCC21C30	54 / 95	2.3 J Z	130	2 - 11	5.1 - 26	mg/kg	5B_DG-836	LL	8015M	19 - 20
TPH-EFH	EFH (C30-C40)	PHCC30C40	50 / 95	5 J Z 5 J Z	310	4 - 21	10 - 53	mg/kg	5B_DG-836	LL	8015M	19 - 20
TPH-EFH	EFH (C8-C11)	PHCC8C11	2 / 95	4.5 J Z	7.9	2 - 11	5.1 - 26	mg/kg	5B_DG-699	LL	8015M	0.5
TPH-EFH-SilicaGel	EFH (C12-C14) w/ Silica Gel	PHCC12C14SILICA	2 / 87	3.3 J L, Z	4.6 J L, Z	2 - 4.2	5.1 - 11	mg/kg	5B_DG-699	LL	8015M	0.5
TPH-EFH-SilicaGel	EFH (C15-C20) w/ Silica Gel	PHCC15C20SILICA	4 / 87	4.6 J L, Z	16 J L	2 - 4.2	5.1 - 11	mg/kg	5B_DG-699	LL	8015M	0.5
TPH-EFH-SilicaGel	EFH (C21-C30) w/ Silica Gel	PHCC21C30SILICA	20 / 87	2.1 J Z 2.1 J L, Z	94 J L	2 - 4.2	5.1 - 11	mg/kg	5B_DG-836	LL	8015M	19 - 20
TPH-EFH-SilicaGel	EFH (C30-C40) w/ Silica Gel	PHCC30C40SILICA	17 / 87	4.6 J Z	210	4 - 8.4	10 - 21	mg/kg	5B_DG-836	LL	8015M	19 - 20

Table 3-2
Summary of Analytical Results for Chemicals - Validated Data
Subsurface Soils - Go-Backs, Trenches and Soil Vapor Locations - Phase 3

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Lab of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration (feet)
TPH-EFH-SilicaGel	EFH (C8-C11) w/ Silica Gel	PHCC8C11SILICA	1 / 87	5.6 J L	5.6 J L	2 - 4.2	5.1 - 11	mg/kg	5B_DG-699	LL	8015M	0.5
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	1 / 76	2.2	2.2	0.2 - 1.9	0.9 - 9.4	mg/kg	5B_DG-836	LL	8015M	19 - 20
VOC	1,1,1,2-Tetrachloroethane	630-20-6	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,1,1-Trichloroethane	71-55-6	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,1,2,2-Tetrachloroethane	79-34-5	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0 / 68	-	-	2 - 2	4 - 6	µg/kg	-	-	-	-
VOC	1,1,2-Trichloroethane	79-00-5	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,1-Dichloroethane	75-34-3	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,1-Dichloroethene	75-35-4	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,1-Dichloropropene	563-58-6	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,2,3-Trichlorobenzene	87-61-6	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,2,3-Trichloropropane	96-18-4	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,2,4-Trichlorobenzene	120-82-1	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,2,4-Trimethylbenzene	95-63-6	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,2-Dibromo-3-chloropropane	96-12-8	0 / 68	-	-	2 - 2	4 - 6	µg/kg	-	-	-	-
VOC	1,2-Dibromoethane	106-93-4	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,2-Dichlorobenzene	95-50-1	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,2-Dichloroethane	107-06-2	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,2-Dichloropropane	78-87-5	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,3,5-Trimethylbenzene	108-67-8	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,3-Dichlorobenzene	541-73-1	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,3-Dichloropropane	142-28-9	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,4-Dichlorobenzene	106-46-7	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1-Chlorohexane	544-10-5	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	2,2-Dichloropropane	594-20-7	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	2-Butanone (MEK)	78-93-3	1 / 68	4 J Z	4 J Z	4 - 5	9 - 12	µg/kg	5CSV_DG-525	LL	8260B	5 - 6
VOC	2-Chloro-1,1,1-trifluoroethane	75-88-7	0 / 68	-	-	2 - 2	4 - 6	µg/kg	-	-	-	-
VOC	2-Chloroethyl Vinyl Ether	110-75-8	0 / 68	-	-	2 - 2	9 - 12	µg/kg	-	-	-	-
VOC	2-Chlorotoluene	95-49-8	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	2-Hexanone	591-78-6	0 / 68	-	-	3 - 4	9 - 12	µg/kg	-	-	-	-
VOC	2-Phenylbutane	135-98-8	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	4-Chlorotoluene	106-43-4	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	4-Methyl-2-pentanone (MIBK)	108-10-1	0 / 68	-	-	3 - 4	9 - 12	µg/kg	-	-	-	-
VOC	Acetone	67-64-1	3 / 68	11 J Z	32	6 - 9	18 - 25	µg/kg	5CSV_DG-525	LL	8260B	5 - 6
VOC	Acrolein	107-02-8	0 / 68	-	-	18 - 25	89 - 120	µg/kg	-	-	-	-
VOC	Acrylonitrile	107-13-1	0 / 68	-	-	4 - 5	18 - 25	µg/kg	-	-	-	-
VOC	Benzene	71-43-2	0 / 68	-	-	0.4 - 0.6	4 - 6	µg/kg	-	-	-	-
VOC	Bromobenzene	108-86-1	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Bromochloromethane	74-97-5	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Bromodichloromethane	75-27-4	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Bromoform	75-25-2	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Bromomethane	74-83-9	0 / 68	-	-	2 - 2	4 - 6	µg/kg	-	-	-	-
VOC	Carbon Disulfide	75-15-0	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Carbon Tetrachloride	56-23-5	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Chlorobenzene	108-90-7	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Chloroethane	75-00-3	0 / 68	-	-	2 - 2	4 - 6	µg/kg	-	-	-	-
VOC	Chloroform	67-66-3	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Chloromethane	74-87-3	0 / 68	-	-	2 - 2	4 - 6	µg/kg	-	-	-	-
VOC	Chlorotrifluoroethylene	79-38-9	0 / 68	-	-	2 - 2	4 - 6	µg/kg	-	-	-	-
VOC	cis-1,2-Dichloroethene	156-59-2	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	cis-1,3-Dichloropropene	10061-01-5	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Cymene	99-87-6	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Di isopropyl Ether	108-20-3	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Dibromochloromethane	124-48-1	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Dibromomethane	74-95-3	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Dichlorodifluoromethane	75-71-8	0 / 68	-	-	2 - 2	4 - 6	µg/kg	-	-	-	-
VOC	Ethylbenzene	100-41-4	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Hexachloro-1,3-butadiene	87-68-3	0 / 68	-	-	2 - 2	4 - 6	µg/kg	-	-	-	-
VOC	Isopropylbenzene	98-82-8	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-

Table 3-2
Summary of Analytical Results for Chemicals - Validated Data
Subsurface Soils - Go-Backs, Trenches and Soil Vapor Locations - Phase 3

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Lab of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration (feet)
VOC	m,p-Xylene	179601-23-1	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Methyl Iodide	74-88-4	0 / 68	-	-	3 - 4	4 - 6	µg/kg	-	-	-	-
VOC	Methyl Tert-Butyl Ether	1634-04-4	0 / 68	-	-	0.4 - 0.6	4 - 6	µg/kg	-	-	-	-
VOC	Methylene Chloride	75-09-2	0 / 68	-	-	2 - 2	4 - 6	µg/kg	-	-	-	-
VOC	n-Butylbenzene	104-51-8	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	n-Propylbenzene	103-65-1	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	o-Xylene	95-47-6	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Styrene	100-42-5	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	tert-Butyl ethyl ether	637-92-3	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	tert-Butylbenzene	98-06-6	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Tertiary amyl methyl ether	994-05-8	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Tertiary butyl alcohol	75-65-0	0 / 68	-	-	18 - 25	44 - 62	µg/kg	-	-	-	-
VOC	Tetrachloroethene	127-18-4	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Toluene	108-88-3	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	trans-1,2-Dichloroethene	156-60-5	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	trans-1,3-Dichloropropene	10061-02-6	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Trichloroethene	79-01-6	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Trichlorofluoromethane	75-69-4	0 / 68	-	-	2 - 2	4 - 6	µg/kg	-	-	-	-
VOC	Vinyl Acetate	108-05-4	0 / 68	-	-	2 - 2	9 - 12	µg/kg	-	-	-	-
VOC	Vinyl Chloride	75-01-4	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-

Notes
LL - Eurofins Lancaster Laboratory
µg/kg- microgram per kilogram
mg/kg - milligram per kilogram
ng/kg - nanogram per kilogram
J - Result is an estimated value
% - percent
CAS = chemical abstract service
TPH = total petroleum hydrocarbon
GRO = gasoline range organic
EFH = extractable fuel hydrocarbon
HpCDF = heptachlorodibenzofuran
HxCDF = hexachlorodibenzofuran
PeCDF = pentachlorodibenzofuran
TCDD = tetrachlorodibenzodioxin
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
2,4,5-T = 2,4,5-trichlorophenoxyacetic acid
2,4-D = 2-4-dichlorophenoxyacetic acid
2,4-DB = 2,4-dichlorophenoxy butyric acid
MCPA = 2-methyl-4-chlorophenoxyacetic acid
MCPP = methylchlorophenoxypropionic acid
PAH = polyaromatic hydrocarbon
PCB/PCT = polychlorinated biphenyls/polychlorinated triphenyls
SVOC = semivolatile organic compound
VOC = volatile organic compound
Specific concentration qualifiers are defined in Appendix A

Table 3-3
Summary of Analytical Results for Chemicals - Validated Data
Combined Soils - Go-Backs, Trenches and Soil Vapor Locations - Phase 3

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Lab of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration (feet)
1,4-Dioxane	1,4-Dioxane	123-91-1	0 / 1	-	-	5.5 - 5.5	16 - 16	µg/kg	-	-	-	-
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	71 / 99	0.393 J Z	2670 J *#	0.0076 - 0.283	4.87 - 6	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	53 / 99	0.244 J Z	282	0.00241 - 0.11	4.87 - 6	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	21 / 99	0.05 J Z	25.5	0.00434 - 0.14	4.87 - 6	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	38 / 99	0.021 J Z	26	0.00863 - 0.153	4.87 - 6	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	32 / 99	0.024 J Z	6.99	0.00533 - 0.155	4.87 - 6	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	59 / 99	0.025 J Z	126	0.00865 - 0.153	4.87 - 6	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	36 / 99	0.018 J Z	10.1	0.00459 - 0.136	4.87 - 6	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	64 / 99	0.04 J Z	52.2	0.00889 - 0.149	4.87 - 6	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	32 / 99	0.03 J Z	1.88 J Z	0.00576 - 0.178	4.87 - 6	ng/kg	5D_DG-586	LL	1613B	0 - 0.5
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	32 / 99	0.036 J Z	14.8	0.00319 - 0.0897	4.87 - 6	ng/kg	8_DG-611	LL	1613B	0.5
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	41 / 99	0.023 J FD, Z	11.8	0.00653 - 0.278	4.87 - 6	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	29 / 99	0.022 J Z	21.7	0.00489 - 0.148	4.87 - 6	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Dioxins	2,3,4,7,8-PECDF	57117-31-4	21 / 99	0.079 J Z	3.07 J Z	0.00338 - 0.0865	4.87 - 6	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Dioxins	2,3,7,8-TCDD	1746-01-6	21 / 99	0.057 J Z	1.99	0.00729 - 0.201	0.974 - 1.2	ng/kg	5A_DG-730	LL	1613B	0.5
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	43 / 99	0.025 J Z	1.64	0.00531 - 0.152	0.974 - 1.2	ng/kg	5D_DG-584	LL	1613B	0 - 0.5
Dioxins	OCDD	3268-87-9	87 / 99	1.62 J Z	26100 J *#	0.00694 - 0.171	9.74 - 12	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Dioxins	OCDF	39001-02-0	52 / 99	0.44 J Z	584	0.0061 - 0.128	9.74 - 12	ng/kg	5C_DG-511	LL	1613B	0 - 0.5
Energetics	1,3,5-Trinitrobenzene	99-35-4	0 / 12	-	-	100 - 110	310 - 320	µg/kg	-	-	-	-
Energetics	2,4,6-Trinitrotoluene	118-96-7	0 / 12	-	-	100 - 110	310 - 320	µg/kg	-	-	-	-
Energetics	2,4-Diamino-6-nitrotoluene	6629-29-4	0 / 12	-	-	200 - 210	410 - 430	µg/kg	-	-	-	-
Energetics	2,4-Dinitrotoluene	121-14-2	0 / 12	-	-	100 - 110	310 - 320	µg/kg	-	-	-	-
Energetics	2,6-Diamino-4-nitrotoluene	59229-75-3	0 / 12	-	-	200 - 210	410 - 430	µg/kg	-	-	-	-
Energetics	2,6-Dinitrotoluene	606-20-2	0 / 12	-	-	100 - 110	310 - 320	µg/kg	-	-	-	-
Energetics	2-Amino-4,6-Dinitrotoluene	35572-78-2	0 / 12	-	-	100 - 110	310 - 320	µg/kg	-	-	-	-
Energetics	2-Nitrotoluene	88-72-2	0 / 12	-	-	200 - 210	310 - 320	µg/kg	-	-	-	-
Energetics	3-Nitrotoluene	99-08-1	0 / 12	-	-	260 - 270	310 - 320	µg/kg	-	-	-	-
Energetics	4-Amino-2,6-Dinitrotoluene	19406-51-0	0 / 12	-	-	150 - 160	310 - 320	µg/kg	-	-	-	-
Energetics	4-Nitrotoluene	99-99-0	0 / 12	-	-	200 - 210	310 - 320	µg/kg	-	-	-	-
Energetics	HMX	2691-41-0	0 / 12	-	-	200 - 210	410 - 430	µg/kg	-	-	-	-
Energetics	M-Dinitrobenzene	99-65-0	0 / 12	-	-	100 - 110	310 - 320	µg/kg	-	-	-	-
Energetics	Nitrobenzene	98-95-3	0 / 12	-	-	100 - 110	310 - 320	µg/kg	-	-	-	-
Energetics	Nitroglycerin	55-63-0	0 / 12	-	-	1000 - 3800	2000 - 3800	µg/kg	-	-	-	-
Energetics	PETN	78-11-5	0 / 12	-	-	1000 - 1100	2000 - 2100	µg/kg	-	-	-	-
Energetics	RDX	121-82-4	0 / 12	-	-	130 - 140	310 - 320	µg/kg	-	-	-	-
Energetics	Tetryl	479-45-8	0 / 12	-	-	160 - 170	310 - 320	µg/kg	-	-	-	-
Formaldehyde	Formaldehyde	50-00-0	0 / 6	-	-	1300 - 13000	2100 - 21000	µg/kg	-	-	-	-
Glycols	Diethylene Glycol	111-46-6	0 / 12	-	-	5.1 - 5.3	10 - 11	mg/kg	-	-	-	-
Glycols	Ethylene Glycol	107-21-1	0 / 12	-	-	5.1 - 5.3	10 - 11	mg/kg	-	-	-	-
Glycols	Propylene Glycol	57-55-6	0 / 12	-	-	5.1 - 5.3	10 - 11	mg/kg	-	-	-	-
Glycols	Triethylene Glycol	112-27-6	0 / 11	-	-	5.1 - 5.3	10 - 11	mg/kg	-	-	-	-
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	0 / 13	-	-	45 - 47	91 - 96	µg/kg	-	-	-	-
Herbicides	2,4,5-T	93-76-5	0 / 13	-	-	0.83 - 0.87	1.7 - 1.8	µg/kg	-	-	-	-
Herbicides	2,4-D	94-75-7	0 / 13	-	-	12 - 13	37 - 38	µg/kg	-	-	-	-
Herbicides	2,4-DB	94-82-6	5 / 13	15 J Z 15 J Z	19	6.3 - 16	17 - 18	µg/kg	5C_DG-653 5C_DG-655	LL LL	8151A 8151A	0.5 0.5
Herbicides	Dicamba	1918-00-9	0 / 14	-	-	4.1 - 4.3	12 - 13	µg/kg	-	-	-	-
Herbicides	Dichlorprop	120-36-5	0 / 13	-	-	9.1 - 9.6	17 - 18	µg/kg	-	-	-	-
Herbicides	Dinitrobutyl Phenol	88-85-7	0 / 5	-	-	9.1 - 9.4	24 - 25	µg/kg	-	-	-	-
Herbicides	MCPA	94-74-6	0 / 14	-	-	770 - 810	2500 - 2700	µg/kg	-	-	-	-
Herbicides	MCPP	93-65-2	0 / 14	-	-	760 - 800	2500 - 2700	µg/kg	-	-	-	-
Herbicides	Silvex (2,4,5-TP)	93-72-1	0 / 13	-	-	0.76 - 0.8	1.7 - 1.8	µg/kg	-	-	-	-
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	6 / 12	0.29 J Z	0.62	0.14 - 0.15	0.41 - 0.44	mg/kg	5C_DG-651	LL	7199	0.5
Mercury	Mercury	7439-97-6	78 / 123	0.01 J Z	0.375	0.0095 - 0.0121	0.0158 - 0.0202	mg/kg	NBZ_DG-566	LL	7471B	0 - 0.5
Metals	Aluminum	7429-90-5	123 / 123	6530	31500	4.57 - 8.85	39 - 49.1	mg/kg	5B_DG-836	LL	6010C	15 - 16
Metals	Antimony	7440-36-0	0 / 123	-	-	0.332 - 0.908	3.9 - 4.91	mg/kg	-	-	-	-
Metals	Arsenic	7440-38-2	119 / 123	0.941 J Z	35.4	0.645 - 0.859	3.9 - 4.91	mg/kg	5B_DG-842	LL	6010C	4 - 5

Table 3-3
Summary of Analytical Results for Chemicals - Validated Data
Combined Soils - Go-Backs, Trenches and Soil Vapor Locations - Phase 3

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Lab of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration (feet)
Metals	Barium	7440-39-3	123 / 123	39.2	247 J FD, E, Q	0.0321 - 0.0405	0.974 - 1.23	mg/kg	5A_DG-874	LL	6010C	4 - 5
Metals	Beryllium	7440-41-7	123 / 123	0.281 J Z	2.19	0.0652 - 0.0822	0.974 - 1.23	mg/kg	NBZ_DG-581	LL	6010C	9 - 10
Metals	Boron	7440-42-8	67 / 123	0.927 J Z	18	0.818 - 4.46	9.74 - 53.1	mg/kg	8_DG-611	LL	6010C	0.5
Metals	Cadmium	7440-43-9	47 / 123	0.1 J Z	1.26	0.0332 - 0.0932	0.974 - 1.23	mg/kg	5D_DG-584	LL	6010C	0 - 0.5
Metals	Calcium	7440-70-2	123 / 123	1850	53400 J E	3.25 - 4.1	19.5 - 24.5	mg/kg	8_DG-611	LL	6010C	0.5
Metals	Chromium	7440-47-3	123 / 123	8.11	42.3 J Q	0.111 - 0.196	2.92 - 3.68	mg/kg	5D_DG-585	LL	6010C	4 - 5
Metals	Cobalt	7440-48-4	123 / 123	2.44	12.9 12.9	0.0964 - 0.121	0.974 - 1.23	mg/kg	NBZ_DG-581 NBZ_DG-581	LL LL	6010C 6010C	13 - 14 4 - 5
Metals	Copper	7440-50-8	123 / 123	4.23	37.5	0.282 - 0.356	1.95 - 2.45	mg/kg	5D_DG-584	LL	6010C	0 - 0.5
Metals	Iron	7439-89-6	123 / 123	12000	60400	3.36 - 20.3	39 - 224	mg/kg	NBZ_DG-581	LL	6010C	9 - 10
Metals	Lead	7439-92-1	123 / 123	2.56 J E, Z	24.4	0.487 - 0.613	2.92 - 3.68	mg/kg	5B_DG-841	LL	6010C	9 - 10
Metals	Lithium	7439-93-2	123 / 123	11.3	69.2	0.33 - 0.68	3.9 - 4.9	mg/kg	5B_DG-841	LL	6010C	9 - 10
Metals	Magnesium	7439-95-4	123 / 123	2670	11900	1.63 - 2.05	9.74 - 12.3	mg/kg	5B_DG-841	LL	6010C	9 - 10
Metals	Manganese	7439-96-5	123 / 123	141	681	0.0808 - 0.102	0.974 - 1.23	mg/kg	5C_DG-757	LL	6010C	8 - 9
Metals	Molybdenum	7439-98-7	57 / 123	0.174 J Z	10.7	0.166 - 0.209	1.95 - 2.45	mg/kg	NBZ_DG-562	LL	6010C	0 - 0.5
Metals	Nickel	7440-02-0	123 / 123	4.86	32.9 J A	0.127 - 0.159	1.95 - 2.45	mg/kg	5D_DG-585	LL	6010C	4 - 5
Metals	Phosphorus	7723-14-0	123 / 123	126	776	0.322 - 3.55	9.74 - 12.3	mg/kg	NBZ_DG-581	LL	6010C	13 - 14
Metals	Potassium	7440-09-7	123 / 123	1290 J Q	6150 J Q	8.12 - 13.7	97.4 - 123	mg/kg	8_DG-611	LL	6010C	0.5
Metals	Selenium	7782-49-2	97 / 123	0.1 J Z	1.04	0.0974 - 0.123	0.39 - 0.491	mg/kg	NBZ_DG-562	LL	6020A	0 - 0.5
Metals	Silver	7440-22-4	98 / 123	0.026 J Q, E, Z	3.33	0.0201 - 0.0319	0.195 - 0.245	mg/kg	5D_DG-584	LL	6020A	0 - 0.5
Metals	Sodium	7440-23-5	123 / 123	51.8 J Z	1890	16.3 - 20.5	97.4 - 123	mg/kg	5B_DG-843	LL	6010C	4 - 5
Metals	Strontium	7440-24-6	123 / 123	9.45	108	0.0576 - 0.179	0.39 - 1.05	mg/kg	8_DG-611	LL	6020A	0.5
Metals	Thallium	7440-28-0	123 / 123	0.126 J Z	0.524	0.0292 - 0.0368	0.195 - 0.245	mg/kg	NBZ_DG-581	LL	6020A	9 - 10
Metals	Tin	7440-31-5	0 / 123	-	-	0.214 - 0.455	9.74 - 12.3	mg/kg	-	-	-	-
Metals	Titanium	7440-32-6	123 / 123	535	2170	0.166 - 0.903	0.974 - 5.31	mg/kg	5B_DG-841	LL	6010C	9 - 10
Metals	Vanadium	7440-62-2	123 / 123	20.1	78.8	0.0917 - 0.159	0.974 - 1.23	mg/kg	NBZ_DG-581	LL	6010C	9 - 10
Metals	Zinc	7440-66-6	123 / 123	32.4	210 J E	0.195 - 0.275	3.9 - 4.91	mg/kg	5A_DG-587	LL	6010C	0.5
Metals	Zirconium	7440-67-7	41 / 123	0.89 J Z	9.28	0.816 - 1.03	4.87 - 6.13	mg/kg	NBZ_DG-581	LL	6010C	13 - 14
Moisture Content	Moisture	MOIST	230 / 230	0.51	19.3	0.1 - 0.1	0.1 - 0.1	%	NBZ_DG-562	LL	160.3M	0 - 0.5
PAHs	1-Methylnaphthalene	90-12-0	27 / 123	0.71 J Z	280	0.67 - 7	1.7 - 18	µg/kg	5B_DG-699	LL	8270D SIM	0.5
PAHs	2-Methylnaphthalene	91-57-6	36 / 123	0.69 J Z	250	0.67 - 7	1.7 - 18	µg/kg	5B_DG-699	LL	8270D SIM	0.5
PAHs	Acenaphthene	83-32-9	7 / 123	0.98 J Z	29	0.67 - 7	1.7 - 18	µg/kg	5B_DG-839	LL	8270D SIM	15.5 - 16.5
PAHs	Acenaphthylene	208-96-8	10 / 123	0.35 J Z 0.35 J Z	29	0.33 - 3.5	1.7 - 18	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PAHs	Anthracene	120-12-7	31 / 123	0.35 J Z	130	0.33 - 3.5	1.7 - 18	µg/kg	5B_DG-839	LL	8270D SIM	15.5 - 16.5
PAHs	Benzo(a)anthracene	56-55-3	42 / 123	0.71 J Z	430	0.67 - 34	1.7 - 84	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PAHs	Benzo(a)pyrene	50-32-8	43 / 123	0.69 J Z	680	0.67 - 34	1.7 - 84	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PAHs	Benzo(b)fluoranthene	205-99-2	59 / 123	0.72 J Z	2600	0.67 - 34	1.7 - 84	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PAHs	Benzo(e)pyrene	192-97-2	17 / 123	3.8 J Z	1100	3.3 - 170	17 - 860	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PAHs	Benzo(g,h,i)perylene	191-24-2	33 / 123	0.74 J Z	590	0.67 - 34	1.7 - 84	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PAHs	Benzo(k)fluoranthene	207-08-9	43 / 123	0.75 J Z	250	0.67 - 34	1.7 - 84	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	45 / 123	6.4 J Z	87	6 - 63	18 - 190	µg/kg	5C_DG-748	LL	8270D SIM	4 - 5
PAHs	Butylbenzylphthalate	85-68-7	11 / 123	6.4 J Z	120	6 - 63	18 - 190	µg/kg	NBZ_DG-565	LL	8270D SIM	0 - 0.5
PAHs	Chrysene	218-01-9	71 / 123	0.38 J Z	2000	0.33 - 17	1.7 - 84	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PAHs	Dibenzo(a,h)anthracene	53-70-3	16 / 123	0.75 J Z	190	0.67 - 7	1.7 - 18	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PAHs	Diethylphthalate	84-66-2	1 / 123	7.2 J Z	7.2 J Z	6 - 63	18 - 190	µg/kg	5B_DG-699	LL	8270D SIM	0.5
PAHs	Dimethylphthalate	131-11-3	0 / 123	-	-	6 - 63	18 - 190	µg/kg	-	-	-	-
PAHs	Di-n-butylphthalate	84-74-2	3 / 123	6.2 J Z	7.6 J Z	6 - 63	18 - 190	µg/kg	6_DG-686	LL	8270D SIM	0.5
PAHs	Di-n-octylphthalate	117-84-0	4 / 123	7.9 J Z	10 J Z	6 - 63	18 - 190	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PAHs	Fluoranthene	206-44-0	64 / 123	0.7 J Z	470	0.67 - 7.7	1.7 - 19	µg/kg	5B_DG-839	LL	8270D SIM	15.5 - 16.5
PAHs	Fluorene	86-73-7	18 / 123	0.79 J Z	19	0.67 - 7	1.7 - 18	µg/kg	5B_DG-839	LL	8270D SIM	15.5 - 16.5
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	26 / 123	0.67 J Z	770	0.67 - 34	1.7 - 84	µg/kg	5B_DG-798	LL	8270D SIM	0 - 0.5
PAHs	Morpholine	110-91-8	0 / 8	-	-	20 - 22	20 - 22	µg/kg	-	-	-	-
PAHs	Naphthalene	91-20-3	40 / 123	0.69 J Z	76	0.67 - 7	1.7 - 18	µg/kg	5B_DG-699	LL	8270D SIM	0.5
PAHs	N-Nitrosodimethylamine	62-75-9	1 / 123	4.6	4.6	0.67 - 7	1.7 - 18	µg/kg	5C_DG-503	LL	8270D SIM	5
PAHs	Phenanthrene	85-01-8	61 / 123	0.68 J Z	700	0.67 - 7.7	1.7 - 19	µg/kg	5B_DG-699	LL	8270D SIM	0.5
PAHs	Pyrene	129-00-0	63 / 123	0.7 J Z	550	0.67 - 7.7	1.7 - 19	µg/kg	5B_DG-839	LL	8270D SIM	15.5 - 16.5
PCB/PCTs	Aroclor 1016	12674-11-2	0 / 130	-	-	3.3 - 8.2	17 - 21	µg/kg	-	-	-	-

Table 3-3
Summary of Analytical Results for Chemicals - Validated Data
Combined Soils - Go-Backs, Trenches and Soil Vapor Locations - Phase 3

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Lab of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration (feet)
PCB/PCTs	Aroclor 1221	11104-28-2	0 / 130	-	-	5.1 - 6.3	17 - 21	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1232	11141-16-5	0 / 130	-	-	4.1 - 10	17 - 21	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1242	53469-21-9	0 / 130	-	-	4.1 - 10	17 - 21	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1248	12672-29-6	7 / 130	6.7 J S, Z	61	3.3 - 4.1	17 - 21	µg/kg	5B_DG-839	LL	8082A	0 - 0.5
PCB/PCTs	Aroclor 1254	11097-69-1	26 / 130	6.5 J Z	110	4.4 - 5.4	17 - 21	µg/kg	5D_DG-584	LL	8082A	0 - 0.5
PCB/PCTs	Aroclor 1260	11096-82-5	8 / 130	6.9 J Z	130	3.9 - 4.8	17 - 21	µg/kg	5B_DG-841	LL	8082A	0 - 0.5
PCB/PCTs	Aroclor 1262	37324-23-5	0 / 130	-	-	3.3 - 37	17 - 190	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1268	11100-14-4	0 / 130	-	-	3.3 - 37	17 - 190	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5432	63496-31-1	0 / 130	-	-	9.9 - 12	33 - 41	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5442	12642-23-8	0 / 130	-	-	9.9 - 110	33 - 370	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5460	11126-42-4	5 / 130	19 J Z	41	9.9 - 12	33 - 41	µg/kg	5A_DG-730	LL	8082A	0.5
Perchlorate	Perchlorate	14797-73-0	0 / 27	-	-	2.1 - 2.3	5.1 - 5.6	µg/kg	-	-	-	-
Pesticides	4,4'-DDD	72-54-8	1 / 30	1.4 J Z	1.4 J Z	0.33 - 39	1.7 - 39	µg/kg	5B_DG-707	LL	8081B	0.5
Pesticides	4,4'-DDE	72-55-9	9 / 30	0.44 J Z	550	0.33 - 17	1.7 - 86	µg/kg	5B_DG-707	LL	8081B	0.5
Pesticides	4,4'-DDT	50-29-3	10 / 30	0.39 J Z	45 J Z	0.35 - 18	1.7 - 86	µg/kg	5B_DG-707	LL	8081B	0.5
Pesticides	Aldrin	309-00-2	0 / 30	-	-	0.17 - 0.88	0.83 - 4.3	µg/kg	-	-	-	-
Pesticides	Alpha-Bhc	319-84-6	0 / 30	-	-	0.17 - 0.88	0.83 - 4.3	µg/kg	-	-	-	-
Pesticides	Beta-Bhc	319-85-7	2 / 30	1.3 J Z	1.4 J Z	0.97 - 4.9	1.9 - 9.8	µg/kg	5C_DG-655	LL	8081B	0.5
Pesticides	Chlordane	57-74-9	0 / 30	-	-	4 - 21	17 - 88	µg/kg	-	-	-	-
Pesticides	Delta-Bhc	319-86-8	0 / 30	-	-	0.45 - 2.3	0.83 - 4.3	µg/kg	-	-	-	-
Pesticides	Dieldrin	60-57-1	1 / 30	7	7	0.33 - 2.8	1.7 - 8.8	µg/kg	5B_DG-707	LL	8081B	0.5
Pesticides	Endosulfan I	959-98-8	2 / 30	0.39 J Z	2.7 J Z	0.22 - 1.1	0.83 - 4.3	µg/kg	5B_DG-699	LL	8081B	0.5
Pesticides	Endosulfan II	33213-65-9	1 / 30	0.56 J Z	0.56 J Z	0.33 - 1.7	1.7 - 8.8	µg/kg	5B_DG-707	LL	8081B	0.5
Pesticides	Endosulfan Sulfate	1031-07-8	2 / 30	1.1 J Z	4.6 J Z	0.33 - 1.7	1.7 - 8.8	µg/kg	5B_DG-699	LL	8081B	0.5
Pesticides	Endrin	72-20-8	0 / 30	-	-	0.33 - 3	1.7 - 8.8	µg/kg	-	-	-	-
Pesticides	Endrin Aldehyde	7421-93-4	1 / 30	0.79 J Z	0.79 J Z	0.33 - 1.7	1.7 - 8.8	µg/kg	NBZ_DG-558	LL	8081B	0 - 0.5
Pesticides	Endrin Ketone	53494-70-5	1 / 30	0.92 J Z	0.92 J Z	0.6 - 3.1	1.8 - 9.3	µg/kg	5B_DG-707	LL	8081B	0.5
Pesticides	Gamma-Bhc (Lindane)	58-89-9	2 / 30	0.21 J Z	0.34 J Z	0.17 - 0.88	0.83 - 4.3	µg/kg	NBZ_DG-562	LL	8081B	0 - 0.5
Pesticides	Heptachlor	76-44-8	2 / 30	0.54 J Z	1.2 J Z	0.17 - 0.88	0.83 - 4.3	µg/kg	5B_DG-699	LL	8081B	0.5
Pesticides	Heptachlor Epoxide	1024-57-3	1 / 30	0.24 J Z	0.24 J Z	0.17 - 0.88	0.83 - 4.3	µg/kg	NBZ_DG-562	LL	8081B	0 - 0.5
Pesticides	Methoxychlor	72-43-5	1 / 30	3.4 J Z	3.4 J Z	1.7 - 8.8	6.7 - 35	µg/kg	5B_DG-699	LL	8081B	3
Pesticides	Mirex	2385-85-5	0 / 30	-	-	0.35 - 1.8	1.7 - 8.8	µg/kg	-	-	-	-
Pesticides	Technical Toxaphene	8001-35-2	0 / 30	-	-	14 - 190	33 - 190	µg/kg	-	-	-	-
pH	pH	pH	123 / 123	4.52	11.9	0.01 - 0.01	0.01 - 0.01	pH	5B_DG-839	LL	9045M	15.5 - 16.5
SVOC	1,1'-Biphenyl	92-52-4	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	1,2,4-Trichlorobenzene	120-82-1	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	1,2-Dichlorobenzene	95-50-1	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	1,2-Diphenylhydrazine	122-66-7	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	1,3-Dichlorobenzene	541-73-1	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	1,4-Dichlorobenzene	106-46-7	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	2,4,5-Trichlorophenol	95-95-4	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	2,4,6-Trichlorophenol	88-06-2	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	2,4-Dichlorophenol	120-83-2	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	2,4-Dimethylphenol	105-67-9	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	2,4-Dinitrophenol	51-28-5	0 / 12	-	-	310 - 320	670 - 1100	µg/kg	-	-	-	-
SVOC	2,6-Dichlorophenol	87-65-0	0 / 11	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	2-butoxyethanol	111-76-2	0 / 4	-	-	170 - 180	170 - 180	µg/kg	-	-	-	-
SVOC	2-Chloronaphthalene	91-58-7	0 / 12	-	-	7 - 7	34 - 35	µg/kg	-	-	-	-
SVOC	2-Chlorophenol	95-57-8	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	2-Methylphenol	95-48-7	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	2-Nitroaniline	88-74-4	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	2-Nitrophenol	88-75-5	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	2-phenoxyethanol	122-99-6	0 / 4	-	-	170 - 180	170 - 180	µg/kg	-	-	-	-
SVOC	3,3'-Dichlorobenzidine	91-94-1	0 / 12	-	-	100 - 110	340 - 350	µg/kg	-	-	-	-
SVOC	3,5-Dimethylphenol	108-68-9	0 / 12	-	-	34 - 35	170 - 180	µg/kg	-	-	-	-
SVOC	3-Nitroaniline	99-09-2	0 / 12	-	-	68 - 71	170 - 180	µg/kg	-	-	-	-
SVOC	4,6-Dinitro-2-methylphenol	534-52-1	0 / 12	-	-	170 - 180	510 - 530	µg/kg	-	-	-	-
SVOC	4-Bromophenyl-phenylether	101-55-3	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-

Table 3-3
Summary of Analytical Results for Chemicals - Validated Data
Combined Soils - Go-Backs, Trenches and Soil Vapor Locations - Phase 3

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Lab of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration (feet)
SVOC	4-Chloro-3-methylphenol	59-50-7	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	4-Chloroaniline	106-47-8	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	4-Chlorophenyl-phenylether	7005-72-3	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	4-Methylphenol	106-44-5	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	4-Nitroaniline	100-01-6	0 / 12	-	-	68 - 71	170 - 180	µg/kg	-	-	-	-
SVOC	4-Nitrophenol	100-02-7	0 / 12	-	-	170 - 180	510 - 530	µg/kg	-	-	-	-
SVOC	Aniline	62-53-3	0 / 12	-	-	170 - 180	340 - 530	µg/kg	-	-	-	-
SVOC	Benzidine	92-87-5	0 / 12	-	-	710 - 740	1700 - 3500	µg/kg	-	-	-	-
SVOC	Benzo(a)anthracene	56-55-3	2 / 2	4 J Z 4 J Z	4 J Z 4 J Z	3 - 3	18 - 18	µg/kg	5C_DG-651 5C_DG-651	LL LL	8270D 8270D	0.5 5
SVOC	Benzo(a)pyrene	50-32-8	5 / 5	4 J Z 4 J Z 4 J Z 4 J Z 4 J Z	4 J Z 4 J Z 4 J Z 4 J Z 4 J Z	3 - 4	17 - 18	µg/kg	5C_DG-653 5C_DG-651 5C_DG-651 5C_DG-651 5C_DG-651	LL LL LL LL LL	8270D 8270D 8270D 8270D 8270D	0.5 0.5 10 15 5
SVOC	Benzo(b)fluoranthene	205-99-2	5 / 5	4 J Z	5 J Z 5 J Z 5 J Z 5 J Z	3 - 4	17 - 18	µg/kg	5C_DG-653 5C_DG-651 5C_DG-651 5C_DG-651	LL LL LL LL	8270D 8270D 8270D 8270D	0.5 0.5 10 5
SVOC	Benzo(g,h,i)perylene	191-24-2	1 / 1	4 J Z	4 J Z	3 - 3	18 - 18	µg/kg	5C_DG-651	LL	8270D	0.5
SVOC	Benzoic Acid	65-85-0	0 / 12	-	-	170 - 180	510 - 530	µg/kg	-	-	-	-
SVOC	Benzyl Alcohol	100-51-6	0 / 12	-	-	170 - 180	340 - 530	µg/kg	-	-	-	-
SVOC	bis(2-chloroethoxy)methane	111-91-1	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	bis(2-chloroethyl) ether	111-44-4	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	bis(2-chloroisopropyl) ether	39638-32-9	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	Carbazole	86-74-8	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	Chrysene	218-01-9	1 / 1	5 J Z	5 J Z	3 - 3	18 - 18	µg/kg	5C_DG-651	LL	8270D	0.5
SVOC	Dibenzofuran	132-64-9	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	Diphenylamine	NDPA122-39-4	0 / 12	-	-	34 - 35	170 - 180	µg/kg	-	-	-	-
SVOC	Fluoranthene	206-44-0	2 / 2	4 J Z 4 J Z	4 J Z 4 J Z	3 - 3	18 - 18	µg/kg	5C_DG-651 5C_DG-651	LL LL	8270D 8270D	0.5 5
SVOC	Hexachlorobenzene	118-74-1	0 / 12	-	-	3 - 4	17 - 18	µg/kg	-	-	-	-
SVOC	Hexachlorobutadiene	87-68-3	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	Hexachlorocyclopentadiene	77-47-4	0 / 12	-	-	170 - 180	510 - 530	µg/kg	-	-	-	-
SVOC	Hexachloroethane	67-72-1	0 / 12	-	-	34 - 35	170 - 180	µg/kg	-	-	-	-
SVOC	Isophorone	78-59-1	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	Nitrobenzene	98-95-3	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	N-Nitroso-di-n-propylamine	621-64-7	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	N-Nitrosodiphenylamine	86-30-6	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	Pentachlorophenol	87-86-5	0 / 12	-	-	34 - 35	170 - 180	µg/kg	-	-	-	-
SVOC	Phenanthrene	85-01-8	1 / 1	4 J Z	4 J Z	3 - 3	18 - 18	µg/kg	5C_DG-651	LL	8270D	5
SVOC	Phenol	108-95-2	0 / 12	-	-	17 - 18	34 - 35	µg/kg	-	-	-	-
SVOC	Pyrene	129-00-0	2 / 2	4 J Z	5 J Z	3 - 3	18 - 18	µg/kg	5C_DG-651	LL	8270D	0.5
SVOC	Pyridine	110-86-1	0 / 12	-	-	68 - 71	170 - 180	µg/kg	-	-	-	-
SVOC	Tetralin	119-64-2	0 / 4	-	-	34 - 35	170 - 180	µg/kg	-	-	-	-
Terphenyls	m-Terphenyl	92-06-8	1 / 12	0.51 J Q	0.51 J Q	0.068 - 0.071	0.17 - 0.18	mg/kg	5C_DG-655	LL	8015B	0.5
Terphenyls	o-Terphenyl	84-15-1	0 / 12	-	-	0.068 - 0.071	0.17 - 0.18	mg/kg	-	-	-	-
Terphenyls	p-Terphenyl	92-94-4	1 / 12	0.98 J Q	0.98 J Q	0.068 - 0.071	0.17 - 0.18	mg/kg	5C_DG-655	LL	8015B	0.5
TPH-EFH	EFH (C12-C14)	PHCC12C14	3 / 154	2.4 J Z	7.6	2 - 11	5 - 26	mg/kg	5B_DG-699	LL	8015M	0.5
TPH-EFH	EFH (C15-C20)	PHCC15C20	46 / 154	2.1 J Z 2.1 J Z	36	2 - 11	5 - 26	mg/kg	5B_DG-699	LL	8015M	0.5
TPH-EFH	EFH (C21-C30)	PHCC21C30	108 / 154	2.3 J Z	210	2 - 11	5 - 26	mg/kg	NBZ_DG-566	LL	8015M	0 - 0.5
TPH-EFH	EFH (C30-C40)	PHCC30C40	104 / 154	5 J Z 5 J Z	400	4 - 21	10 - 53	mg/kg	NBZ_DG-566	LL	8015M	0 - 0.5
TPH-EFH	EFH (C8-C11)	PHCC8C11	6 / 154	2.1 J Z	13 J Z	2 - 11	5 - 26	mg/kg	5D_DG-612	LL	8015M	0 - 0.5
TPH-EFH-SilicaGel	EFH (C12-C14) w/ Silica Gel	PHCC12C14SILICA	2 / 142	3.3 J L, Z	4.6 J L, Z	2 - 4.2	5 - 11	mg/kg	5B_DG-699	LL	8015M	0.5
TPH-EFH-SilicaGel	EFH (C15-C20) w/ Silica Gel	PHCC15C20SILICA	5 / 142	4.6 J L, Z	16 J L	2 - 4.2	5 - 11	mg/kg	5B_DG-699	LL	8015M	0.5

Table 3-3
Summary of Analytical Results for Chemicals - Validated Data
Combined Soils - Go-Backs, Trenches and Soil Vapor Locations - Phase 3

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Lab of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration (feet)
TPH-EFH-SilicaGel	EFH (C21-C30) w/ Silica Gel	PHCC21C30SILICA	55 / 142	2.1 J L, Z 2.1 J L, Z 2.1 J Z	94 J L	2 - 4.2	5 - 11	mg/kg	5B_DG-836	LL	8015M	19 - 20
TPH-EFH-SilicaGel	EFH (C30-C40) w/ Silica Gel	PHCC30C40SILICA	43 / 142	4.2 J Z	210	4 - 8.4	9.9 - 21	mg/kg	5B_DG-836	LL	8015M	19 - 20
TPH-EFH-SilicaGel	EFH (C8-C11) w/ Silica Gel	PHCC8C11SILICA	1 / 142	5.6 J L	5.6 J L	2 - 4.2	5 - 11	mg/kg	5B_DG-699	LL	8015M	0.5
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	1 / 76	2.2	2.2	0.2 - 1.9	0.9 - 9.4	mg/kg	5B_DG-836	LL	8015M	19 - 20
VOC	1,1,1,2-Tetrachloroethane	630-20-6	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,1,1-Trichloroethane	71-55-6	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,1,2,2-Tetrachloroethane	79-34-5	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0 / 68	-	-	2 - 2	4 - 6	µg/kg	-	-	-	-
VOC	1,1,2-Trichloroethane	79-00-5	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,1-Dichloroethane	75-34-3	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,1-Dichloroethene	75-35-4	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,1-Dichloropropene	563-58-6	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,2,3-Trichlorobenzene	87-61-6	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,2,3-Trichloropropane	96-18-4	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,2,4-Trichlorobenzene	120-82-1	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,2,4-Trimethylbenzene	95-63-6	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,2-Dibromo-3-chloropropane	96-12-8	0 / 68	-	-	2 - 2	4 - 6	µg/kg	-	-	-	-
VOC	1,2-Dibromoethane	106-93-4	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,2-Dichlorobenzene	95-50-1	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,2-Dichloroethane	107-06-2	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,2-Dichloropropane	78-87-5	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,3,5-Trimethylbenzene	108-67-8	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,3-Dichlorobenzene	541-73-1	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,3-Dichloropropane	142-28-9	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1,4-Dichlorobenzene	106-46-7	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	1-Chlorohexane	544-10-5	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	2,2-Dichloropropane	594-20-7	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	2-Butanone (MEK)	78-93-3	1 / 68	4 J Z	4 J Z	4 - 5	9 - 12	µg/kg	5CSV_DG-525	LL	8260B	5 - 6
VOC	2-Chloro-1,1,1-trifluoroethane	75-88-7	0 / 68	-	-	2 - 2	4 - 6	µg/kg	-	-	-	-
VOC	2-Chloroethyl Vinyl Ether	110-75-8	0 / 68	-	-	2 - 2	9 - 12	µg/kg	-	-	-	-
VOC	2-Chlorotoluene	95-49-8	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	2-Hexanone	591-78-6	0 / 68	-	-	3 - 4	9 - 12	µg/kg	-	-	-	-
VOC	2-Phenylbutane	135-98-8	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	4-Chlorotoluene	106-43-4	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	4-Methyl-2-pentanone (MIBK)	108-10-1	0 / 68	-	-	3 - 4	9 - 12	µg/kg	-	-	-	-
VOC	Acetone	67-64-1	3 / 68	11 J Z	32	6 - 9	18 - 25	µg/kg	5CSV_DG-525	LL	8260B	5 - 6
VOC	Acrolein	107-02-8	0 / 68	-	-	18 - 25	89 - 120	µg/kg	-	-	-	-
VOC	Acrylonitrile	107-13-1	0 / 68	-	-	4 - 5	18 - 25	µg/kg	-	-	-	-
VOC	Benzene	71-43-2	0 / 68	-	-	0.4 - 0.6	4 - 6	µg/kg	-	-	-	-
VOC	Bromobenzene	108-86-1	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Bromochloromethane	74-97-5	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Bromodichloromethane	75-27-4	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Bromoform	75-25-2	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Bromomethane	74-83-9	0 / 68	-	-	2 - 2	4 - 6	µg/kg	-	-	-	-
VOC	Carbon Disulfide	75-15-0	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Carbon Tetrachloride	56-23-5	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Chlorobenzene	108-90-7	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Chloroethane	75-00-3	0 / 68	-	-	2 - 2	4 - 6	µg/kg	-	-	-	-
VOC	Chloroform	67-66-3	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Chloromethane	74-87-3	0 / 68	-	-	2 - 2	4 - 6	µg/kg	-	-	-	-
VOC	Chlorotrifluoroethylene	79-38-9	0 / 68	-	-	2 - 2	4 - 6	µg/kg	-	-	-	-
VOC	cis-1,2-Dichloroethene	156-59-2	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	cis-1,3-Dichloropropene	10061-01-5	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Cymene	99-87-6	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Di isopropyl Ether	108-20-3	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Dibromochloromethane	124-48-1	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-

Table 3-3
Summary of Analytical Results for Chemicals - Validated Data
Combined Soils - Go-Backs, Trenches and Soil Vapor Locations - Phase 3

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Lab of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration (feet)
VOC	Dibromomethane	74-95-3	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Dichlorodifluoromethane	75-71-8	0 / 68	-	-	2 - 2	4 - 6	µg/kg	-	-	-	-
VOC	Ethylbenzene	100-41-4	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Hexachloro-1,3-butadiene	87-68-3	0 / 68	-	-	2 - 2	4 - 6	µg/kg	-	-	-	-
VOC	Isopropylbenzene	98-82-8	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	m,p-Xylene	179601-23-1	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Methyl Iodide	74-88-4	0 / 68	-	-	3 - 4	4 - 6	µg/kg	-	-	-	-
VOC	Methyl Tert-Butyl Ether	1634-04-4	0 / 68	-	-	0.4 - 0.6	4 - 6	µg/kg	-	-	-	-
VOC	Methylene Chloride	75-09-2	0 / 68	-	-	2 - 2	4 - 6	µg/kg	-	-	-	-
VOC	n-Butylbenzene	104-51-8	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	n-Propylbenzene	103-65-1	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	o-Xylene	95-47-6	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Styrene	100-42-5	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	tert-Butyl ethyl ether	637-92-3	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	tert-Butylbenzene	98-06-6	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Tertiary amyl methyl ether	994-05-8	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Tertiary butyl alcohol	75-65-0	0 / 68	-	-	18 - 25	44 - 62	µg/kg	-	-	-	-
VOC	Tetrachloroethene	127-18-4	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Toluene	108-88-3	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	trans-1,2-Dichloroethene	156-60-5	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	trans-1,3-Dichloropropene	10061-02-6	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Trichloroethene	79-01-6	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-
VOC	Trichlorofluoromethane	75-69-4	0 / 68	-	-	2 - 2	4 - 6	µg/kg	-	-	-	-
VOC	Vinyl Acetate	108-05-4	0 / 68	-	-	2 - 2	9 - 12	µg/kg	-	-	-	-
VOC	Vinyl Chloride	75-01-4	0 / 68	-	-	0.9 - 1	4 - 6	µg/kg	-	-	-	-

Notes

LL - Eurofins Lancaster Laboratory
µg/kg- microgram per kilogram
mg/kg - milligram per kilogram
ng/kg - nanogram per kilogram
J - Result is an estimated value
% - percent
CAS = chemical abstract service
TPH = total petroleum hydrocarbon
GRO = gasoline range organic
EFH = extractable fuel hydrocarbon
HpCDF = heptachlorodibenzofuran
HxCDF = hexachlorodibenzofuran
PeCDF = pentachlorodibenzofuran
TCDD = tetrachlorodibenzodioxin
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
2,4,5-T = 2,4,5-trichlorophenoxyacetic acid
2,4-D = 2-4-dichlorophenoxyacetic acid
2,4-DB = 2,4-dichlorophenoxy butyric acid
MCPA = 2-methyl-4-chlorophenoxyacetic acid
MCPP = methylchlorophenoxypropionic acid
PAH = polyaromatic hydrocarbon
PCB/PCT = polychlorinated biphenyls/polychlorinated triphenyls
SVOC = semivolatile organic compound
VOC = volatile organic compound
Specific concentration qualifiers are defined in Appendix A

Section 4
Data Usability Assessment

The purpose of the DUAR provided in Appendix C and summarized here is to describe the data validation processes performed on the data sets and determine whether the sample results meet the data quality objectives (DQOs) outlined in the Phase 3 Master FSP (CDM Smith 2012a) and QAPP (CDM Smith 2012c).

4.1 Usability Summary

For the Phase 3 Go-Backs, Trenches and Soil Vapor Location samples data usability assessment, 65 data sets, or SDGs were reviewed. An SDG consists of 20 or fewer samples grouped together by analytical method for analyses depending on the time and date the samples were received by the laboratory. The analyses performed are discussed in Section 2.6.1.

Samples were collected and analyzed in accordance with the Master FSP (CDM Smith 2012a), and all the Addendums listed in Section 1 with the exception of the field investigation deviations as stated in Section 2.8.

The validated data for Phase 3 Go-Backs, Trenches and Soil Vapor Location samples are usable as reported with the exception of one triethylene glycol result, 15 herbicide results in 10 samples and one SVOC result (2,6-dichlorophenol). This equates to 0.09057 percent of the results. These rejected results do not impact project objectives and goals. Specific details are provided in the validation reports in Appendix C and Section 4.7 of this report.

4.2 Data Validation Procedures

Data were validated by the independent data validation firm Laboratory Data Consultants, Inc. All data validation was conducted in accordance with the following guidance documents:

- *EPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (EPA 2004)
- *EPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (EPA 2008)
- *EPA Contract Laboratory Program National Functional Guidelines for Chlorinated Dioxin/Furan Data Review* (EPA 2005)

The data validation strategy was to validate ten percent of the data according to EPA Level IV protocols (all QC parameters and raw data) and the remaining 90 percent according to EPA Level III protocols (all QC parameters except calibrations and raw data). The Level IV determinations also included reviewing ten percent for each laboratory and each method. In order to achieve this, the validators chose appropriate samples in each SDG. Hence, not all samples in some of the SDGs were Level IV validated but they received a mixture of Level IV and Level III review.

Table 4-1 presents all SDGs that include Go-Back, Trenches, and Soil Vapor Location soil samples and those SDGs that were validated as Level III or Level IV. Some SDGs may contain samples from other

subareas, but all samples in an SDG were validated together. An index of samples associated with each SDG is presented at the beginning of Appendix C.

Table 4-1 Sample Delivery Groups and Validation Levels for Go-Backs, Trenches and Soil Vapor Locations

Sample Delivery Group	Level of Validation Performed	CDM Smith Review
PH158	Level IV	
PH159	Level III	Yes
PH172	Level III	
PH173	Level IV	
PH174	Level III	Yes
PH175	Level III	
PH176	Level III	
PH177	Level III	
PH178	Level IV	
PH180	Level III	Yes
PH181	Level III	
PH182	Level III	
PH183	Level III	
PH185	Level IV	
PH186	Level III	
PH188	Level III	
PH189	Level III	
PH190	Level III	
PH191	Level III	
PH192	Level III	
PH193	Level IV	Yes
PH194	Level III	
PH195	Level III	
PH196	Level III	
PH197	Level III	
PH198	Level III	
PH199	Level III	
PH200	Level IV	Yes
PH201	Level III	
PH203	Level III	
PH204	Level III	
PH206	Level III	
PH207	Level III	
PH209	Level III	
PH211	Level III	
PH212	Level IV	
PH214	Level III	

Table 4-1 Sample Delivery Groups and Validation Levels for Go-Backs, Trenches and Soil Vapor Locations

Sample Delivery Group	Level of Validation Performed	CDM Smith Review
PH216	Level III	
PH217	Level III	
PH219	Level IV	
PH220	Level III	
PH221	Level III	
PH222	Level III	
PH223	Level III	Yes
PH224	Level IV	
PH226	Level III	
PH227	Level III	
PH228	Level III	
PH229	Level III	
PH230	Level III	
PH231	Level III	
PH233	Level III	
PH234	Level IV	Yes
PH235	Level III	
PH237	Level III	

Note: Some SDGs may contain samples from other subareas, but all samples in an SDG were validated together.

To evaluate the quality of the laboratory data and the validation process, CDM Smith's chemists reviewed over 10 percent of the Go-Back, Trenches and Soil Vapor Location soil sample SDGs. The SDGs reviewed are chosen based on methods and level of validation performed by the validation firm. The purpose of the review was to identify any laboratory QC issues not identified by the validation firm or any discrepancies in validation procedures by the validation firm. No additional qualifiers were applied to the data based on CDM Smith's review. The results of this review are provided in Section 4.9.

4.3 Quality Assurance Objectives

Quality assurance (QA) objectives for measurement data are expressed in terms of precision, accuracy, representativeness, comparability, completeness, and sensitivity (PARCCS). The QA objectives provide a mechanism for evaluating and measuring data quality.

A review of the collected data is necessary to determine if DQOs established in the Master FSP (CDM Smith 2012a) have been met. The following data measurement tasks were evaluated:

- Specification and adherence to analytical method and reporting limit requirements
- Identification of the appropriate laboratory analytical QC requirements and verification that QC requirements were met

- Verification that measurement performance criteria (representativeness and completeness) for the data were met
- Verification that field procedures were followed, deviations were documented, and a determination of impact on data quality as a result of these deviations

The data validation review determines if the collected data are of sufficient quality to support their intended use.

4.4 Summary of Field and Laboratory QA Activities

CDM Smith completed sampling activities for Go-Backs, Trenches, and Soil Vapor Location sampling in accordance with the approved Master FSP (CDM Smith 2012a) and Addendum to the Master FSP (CDM Smith 2012b) except for the surface samples that were collected using the subsurface procedure as discussed in Section 2.8. A total of 241 soil Go-Backs, Trenches, and Soil Vapor Location samples were collected and analyzed from the locations described in Tables 2-1, 2-2 and 2-3. These tables also provide a summary of the samples collected and the laboratory analyses requested. Associated QA activities are described below.

4.5 Field QA/QC

The MS/MSDs and field duplicates field QC samples were collected at a frequency of approximately 1 per 20 samples (five percent). During sampling for Go-Backs, Trenches and Soil Vapor Locations, a total of 13 field duplicate/MS/MSD samples were collected equating to approximately 5.2 to 5.8 percent for each sample type. On an individual method basis, the five percent goal was met or exceeded for all analyses. Field duplicate and MS/MSD samples met the frequency requirements detailed in the Master FSP (CDM Smith 2012a).

Equipment Rinsate and Field Blanks

The 24 equipment rinsate blank results collected are presented in Appendix C and a summary of the detected results is presented in Table 4-2 for Go-Backs, Trenches, and Soil Vapor Location samples. Field blank samples were collected from each lot number of ASTM International Type II water used for decontamination. Two field blanks were collected during sampling and one other one was applicable to some of the samples collected during the Go-Back, Trenches and Soil Vapor Location sampling activities. The detected results are presented below in Table 4-3 and all results are reported in Appendix C.

Table 4-2 Equipment Blank Results for Go-Backs, Trenches and Soil Vapor Location Samples – Detected Results Only

EB-011414 EQUIPMENT BLANK FDG 01/14/2014			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	pg/L	0.537/10.1	J
2,3,4,6,7,8-HxCDF	pg/L	0.404/10.1	J
Barium	mg/L	0.00036/0.01	J
Diethylphthalate	µg/L	0.44/1.1	J
Di-n-butylphthalate	µg/L	0.17/1.1	J

Table 4-2 Equipment Blank Results for Go-Backs, Trenches and Soil Vapor Location Samples – Detected Results Only

EB-050814 EQUIPMENT BLANK FDG 05/08/2014			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	pg/L	0.146/9.7	J
2,3,4,6,7,8-HxCDF	pg/L	0.114/9.7	J
Acenaphthene	µg/L	0.016/0.05	J
Acenaphthylene	µg/L	0.021/0.05	J
Boron	mg/L	0.0084/0.1	J
Diethylphthalate	µg/L	0.48/1	J
EB-060514 EQUIPMENT BLANK FDG 6/05/2014			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
1-Methylnaphthalene	µg/L	0.024/0.05	J
2-Methylnaphthalene	µg/L	0.034/0.05	J
Bis(2-ethylhexyl)phthalate	µg/L	1/1.1	J
Di-n-butylphthalate	µg/L	0.098/1.1	J
Napthalene	µg/L	0.072/0.05	
EB1-051414 EQUIPMENT BLANK FDG 05/14/2014			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
2,3,7,8-Tetrachlorodibenzofuran	pg/L	0.156/2.06	J
Barium	mg/L	0.00034/0.01	J
Boron	mg/L	0.0106/0.1	J
Molybdenum	mg/L	0.0029/0.02	J
Perchlorate	µg/L	6.4/1	J
EB1-052214 EQUIPMENT BLANK FDG 05/22/2104			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
1-Methylnaphthalene	µg/L	0.02/0.05	J
2-Methylnaphthalene	µg/L	0.03/0.05	J
Chloroform	µg/L	0.6/5	J
Diethylphthalate	µg/L	0.053/1	J
Di-n-butylphthalate	µg/L	0.09/1	J
Methylene Chloride	µg/L	7/5	J
Naphthalene	µg/L	0.11/0.05	J

Table 4-2 Equipment Blank Results for Go-Backs, Trenches and Soil Vapor Location Samples – Detected Results Only

EB1-052914 EQUIPMENT BLANK TR 05/29/2014			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	pg/L	0.293/9.6	J
1-Methylnaphthalene	µg/L	0.023/0.051	J
2,3,4,7,8-PeCDF	pg/L	0.216/9.6	J
2-Methylnaphthalene	µg/L	0.033/0.051	J
Diethylphthalate	µg/L	0.057/1	J
Methylene Chloride	µg/L	5/3	
Molybdenum	mg/L	0.0054/0.02	J
Naphthalene	µg/L	0.087/0.051	
Strontium	mg/L	0.00042/0.002	J
EB1-061114 EQUIPMENT BLANK SV 06/11/2014			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
Methylene Chloride	µg/L	4/3	
EB1-061214 EQUIPMENT BLANK FDG 06/12/2014			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
1-Methylnaphthalene	µg/L	0.02/0.056	J
2,3,4,7,8-PeCDF	pg/L	0.0938/10.2	J
2,3,7,8-Tetrachlorodibenzofuran	pg/L	0.0871/2.04	J
2,4-DB	µg/L	0.59/0.97	J
2-Methylnaphthalene	µg/L	0.027/0.056	J
Beta-BHC	µg/L	0.017/0.009	
Naphthalene	µg/L	0.058/0.056	
OCDF	pg/L	0.74/20.4	J
EB1-061814 EQUIPMENT BLANK FDG 06/18/2014			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	pg/L	29.4/10.4	
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	pg/L	1.57/10.4	J
1,2,3,7,8,9-HxCDF	pg/L	2.78/10.4	J
1-Methylnaphthalene	µg/L	0.011/0.052	J
2,3,7,8-TCDD	pg/L	0.812/2.08	J
2-Butanone (MEK)	µg/L	3/10	J

Table 4-2 Equipment Blank Results for Go-Backs, Trenches and Soil Vapor Location Samples – Detected Results Only

EB1-061814 EQUIPMENT BLANK FDG 06/18/2014 (cont.)			
2-Methylnaphthalene	µg/L	0.015/0.052	J
Boron	mg/L	0.0061/0.1	J
Cadmium	mg/L	0.00037/0.01	J
Diethylphthalate	µg/L	0.11/1	J
Molybdenum	mg/L	0.01/0.02	J
Naphthalene	µg/L	0.036/0.052	J
Perchlorate	µg/L	0.4/1	J
Potassium	mg/L	0.114/1	J
EB2-051414 EQUIPMENT BLANK FDG 05/14/2014			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
Perchlorate	µg/L	0.4/1	J
Potassium	mg/L	0.114/1	J
EB2-052214 EQUIPMENT BLANK FDG 05/22/2014			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
1-Methylnaphthalene	µg/L	0.033/0.05	J
2,3,7,8-Tetrachlorodibenzofuran	pg/L	0.119/1.96	J
2-Methylnaphthalene	µg/L	0.052/0.05	J
Di-n-butylphthalate	µg/L	0.1/1.1	J
Naphthalene	µg/L	0.15/0.05	J
EB2-061114 EQUIPMENT BLANK SV 06/11/2014			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
Methylene Chloride	µg/L	4/3	
EB2-061214 EQUIPMENT BLANK FDG 06/12/2014			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
1,2,3,4,7,8,9-HpCDF	pg/L	0.367/9.86	J
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	pg/L	0.251/9.86	J
1-Methylnaphthalene	µg/L	0.02/0.06	J
2,3,4,7,8-PeCDF	pg/L	0.234/9.86	J
2-Methylnaphthalene	µg/L	0.028/0.06	J
Naphthalene	µg/L	0.058/0.06	
OCDF	pg/L	1.06/19.7	J

Table 4-2 Equipment Blank Results for Go-Backs, Trenches and Soil Vapor Location Samples – Detected Results Only

EB3-052214 EQUIPMENT BLANK TR 05/22/2014			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
2,3,7,8-Tetrachlorodibenzofuran	pg/L	0.203/1.91	J
Calcium	mg/L	0.15/0.4	J
Diethylphthalate	µg/L	0.097/1	J
Di-n-butylphthalate	µg/L	0.1/1	J
Manganese	mg/L	0.0009/0.01	J
Strontium	mg/L	0.00046/0.002	J
EB3-060414 EQUIPMENT BLANK TR 06/04/2014			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	pg/L	0.313/9.57	J
1-Methylnaphthalene	mg/L	0.02/0.057	J
2,3,7,8-TCDD	pg/L	0.262/1.91	J
2-Methylnaphthalene	µg/L	0.028/0.057	J
Barium	mg/L	0.0007/0.01	J
Calcium	mg/L	0.151/0.4	J
Di-n-butylphthalate	µg/L	0.14/1.1	J
Naphthalene	µg/L	0.073/0.057	
Strontium	mg/L	0.00069/0.002	J
EB3-061114 EQUIPMENT BLANK SV 06/11/2014			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
2-Butanone (MEK)	pg/L	3/10	J
Methylene Chloride	µg/L	4/3	
EB4-061114 EQUIPMENT BLANK SV 06/11/2014			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
Methylene Chloride	µg/L	4/3	

Notes:
Blank result greater than RL
2,4-DB = 2,4-dichlorophenoxy butyric acid
BHC = benzene hexachloride
HxCDF = hexachlorodibenzofuran
OCDF = octachlorodibenzofuran
PeCDF = pentachlorodibenzofuran
RL = Reporting Limit
TCDD = 2,3,7,8-tetrachlorodibenzo-p-dioxin
µg/L = microgram per liter
pg/L = picogram per liter
mg/L = milligram per liter
J = estimated value

Table 4-3 Field Blank Results for Go-Backs, Trenches and Soil Vapor Locations – Detected Results Only

FB-041613 Field Blank 04/16/2013			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
1,2,3,4,7,8-HxCDF	pg/L	0.257/9.71	J
2-Methylnaphthalene	µg/L	0.012/0.052	J
Chloroform	µg/L	3/5	J
Di-n-butylphthalate	µg/L	0.11/1	J
Methylene Chloride	µg/L	18/5	
Tin	mg/L	0.0029/0.04	J
FB-051314 Field Blank 05/13/2014			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
1,2,3,4,7,8-HxCDF	pg/L	0.257/9.71	J
FB-052114 Field Blank 05/21/2014			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
1,2,3,7,8,9-HxCDF	pg/L	0.182/9.9	J
1-Methylnaphthalene	µg/L	0.022/0.05	J
2-Methylnaphthalene	µg/L	0.032/0.05	J
Chloroform	µg/L	0.7/5	J
Di-n-butylphthalate	µg/L	0.089/1.1	J
Methylene Chloride	mg/L	7/5	
Naphthalene (8270D)	µg/L	0.2/0.5	J
Naphthalene (8270D SIM)	µg/L	0.11/0.05	

Notes:
Blank result greater than RL
HxCDF = hexachlorodibenzofuran
RL = Reporting Limit
µg/L = microgram per liter
pg/L = picogram per liter
mg/L = milligram per liter
J = estimated value

Trip Blanks

Forty-six trip blank samples were shipped with the VOC/TPH Go-Backs, Trenches and Soil Vapor Location samples. The analytical results for the trip blanks collected in association with these sampling activities are presented in Appendix C. No analytes were detected above their respective reporting limits in any of the trip blank samples.

Temperature Blanks
Temperature blanks were included with each shipment of samples. Based on validation results all temperature blanks submitted with the Go-Backs, Trenches and Soil Vapor Location samples met criteria.

Data qualifications based on all laboratory and field blank detections, and impacts to the data due to contaminants detected in the blanks, are discussed in Section 4.7.3 and in the Appendix C validation reports.

Field QC Summary
As stated previously, on an individual method basis, the five percent goal was met or exceeded for all analyses. Field duplicate and MS/MSD samples met the frequency requirements detailed in the Master FSP (CDM Smith 2012a) for the Phase 3 Go-Backs, Trenches and Soil Vapor Locations sampling program. Further, field QA/QC objectives were attained through the use of appropriate sampling techniques and collection of the required number and frequency of QC samples.

4.6 Laboratory QA/QC

Analytical QA/QC was assessed by laboratory QC checks, method blanks, sample custody tracking, sample preservation, adherence to holding times, laboratory control samples (LCSs), MSs, calibration recoveries, surrogates, tuning criteria, second column confirmations, internal standards, serial dilutions, laboratory duplicates, and interference check standards. The majority of the laboratory QC sample criteria met project requirements as indicated in the data validation reports in Appendix C. Outliers were appropriately qualified. For the Go-Backs, Trenches and Soil Vapor Location samples, one triethylene glycol result, 15 herbicide results in 10 samples and one SVOC result (2,6-dichlorophenol) were rejected. Specific details are provided in the validation reports in Appendix C and discussed in Section 4.7.

4.7 Data Quality Indicators

This section summarizes the validation performed. Individual SDG validation reports with specific sample detail are provided in Appendix C.

Achievement of the DQOs was determined in part by the use of data quality indicators (DQIs) described in the DUAR in Appendix C. These DQIs for measurement data are expressed in terms of PARCCS. The DQIs provide a mechanism for ongoing control to evaluate and measure data quality throughout the project. These criteria are defined in the sections below.

4.7.1 Precision

Precision is the measurement of the ability to obtain the same value on re-analysis of a sample through the entire analytical process. The closer the measurement results, the greater the precision. Precision has nothing to do with accuracy or true values of the sample. Instead, it is focused on random errors inherent in the analysis that stem from the measurement process and are compounded by the non-homogeneous nature of some samples. Precision is measured by analyzing two portions of the sample (sample and duplicate) and then comparing the results. This comparison can be expressed in terms of relative percent difference (RPD). RPD is calculated as the absolute difference between the two measurements divided by the average of the two measurements.

$$RPD = \frac{[(A-B)/\underline{A+B}] \times 100}{2}$$

A condition with this formula is that it depends on the average of the two measurements and the magnitude of the calculated RPD is intimately linked to the magnitude of the results. When sample results are close to the RL, the RPD is greater but does not necessarily indicate that the precision is out of control limits, just that the sample concentrations are low.

RPD as a measure of precision works very well in those cases where the same level of analyte is present in all samples; however, it does not work well as a quantitative tool when varying levels are present. Analysis of sample duplicates is valuable as a quantitative measure of precision but is not useful as a quantitative measure in environmental sample analyses. Another option that is used for evaluating the differences between sample results that are close to the RL is calculating the absolute difference between the results. In this situation, the difference between the sample results is compared to the RL (two times the RL for soils) and if the difference is greater, the sample results are qualified as estimated "J."

Because of these conditions, precision is normally calculated on spike samples, either on a MS and MSD or on a LCS and laboratory control sample duplicate (LCSD). For spike samples, a known concentration of analyte has been added to each sample and evaluations of RPD can be made that are applicable to the reality of the measurement. The drawback is that the precision measurement is only applicable to the particular spike level used.

For the Phase 3 Go-Back, Trench and Soil Vapor Location data set, precision was evaluated by reviewing RPD results for MS/MSDs, LCS/LCSDs, laboratory duplicates, and field duplicates.

Laboratory RPD control limits are presented in the Master FSP (CDM Smith 2012a) or are laboratory specific. For laboratory duplicates, if one or both of the sample results were less than two times the RL, a control limit of the absolute difference value equal to the RL was used for comparison.

The field duplicate RPD criterion is 50 percent. Field duplicates for this project were validated as follows:

- If one result is non-detect and the other result is above the RL, the RPD result is reported at 200 percent and the field duplicate sample and parent sample results are qualified as estimated "J" for a detect value or "UJ" for a non-detect value.
- If the field duplicate RPD is above the 50 percent criterion (and both sample results are above the RL) the field duplicate and parent sample results for that analyte are qualified as estimated "J."

Qualifiers were applied to applicable sample analyte results during the validation process based on laboratory and field duplicate precision results. Details of the validation and the number of analytes qualified are provided in the DUAR and laboratory validation reports in Appendix C.

The following Go-Back, Trench and Soil Vapor Location individual analyte results were qualified as estimated "J/UJ" based on precision criteria:

- Some of the metals due to laboratory precision criteria

Field duplicate precision criteria for Phase 3 Go-Back, Trench and Soil Vapor Location samples required the qualification of some analytes for dioxins, metals, mercury, terphenyls, glycols, PCB/PCTs, herbicides and SVOC SIM. No results were rejected based on field duplicate precision criteria. All field duplicate RPD results are presented in Appendix C. In summary, sample results that have been qualified as estimated "J/UJ" due to precision criteria are usable for project decisions with a degree of caution.

There was no discernible pattern or reason for the identified laboratory and field duplicate sample RPD exceedances. No field sampling issues were identified that would cause the RPD results that were outside of criteria. These exceedances are reasonable for this type of sampling activity.

4.7.2 Accuracy

Accuracy is a concept from quantitative analysis that attempts to address the question of how close the analytical result is to the true value of the analyte in the sample. Accuracy is determined through a spike procedure, where a known amount of the target analyte is added to a portion of the sample then the sample and the spiked sample are analyzed. The quantitative measure of accuracy is percent recovery (%R) calculated as follows:

$$\text{Percent Recovery} = \frac{(\text{Total Analyte Found} - \text{Analyte Originally Present})}{\text{Analyte Added}} \times 100$$

Each measurement performed on a sample is subject to random and systematic error. Accuracy is related to the systematic error. Attempts to assess systematic error are always complicated by the inherent random error of the measurement.

Analytical accuracy for the entire data collection activity is difficult to assess because several sources of error exist. Errors can be introduced by any of the following:

- Sampling procedure
- Field contamination
- Sample preservation and handling
- Sample matrix
- Sample preparation
- Analytical techniques

Accuracy is maintained to the extent possible by adhering to the EPA method and approved field and analytical standard operating procedures.

The following QC samples are used to assess laboratory accuracy:

- Matrix Spikes: MSs are samples with a known amount of a target analyte added to them. Analysis of the sample that has been spiked and comparison with the results from the unspiked sample (background) gives information about the ability of the test procedure to generate a correct result from the sample.
- Post Digestion Spikes: Post digestion spikes are performed after the sample has been prepared and is ready for analysis. These are also termed "analytical spikes." The technique is used in

conjunction with a MS to provide data that can separate interferences produced as part of the sample preparation from interferences that are innate qualities of the sample.

- Laboratory Control Samples: LCSs consist of a portion of analyte-free water or solid phase sample that is spiked with target analytes at a known concentration.
- Surrogates: Surrogate recovery is a QC measure limited to use in organics analysis. Surrogates are compounds added to every sample at the beginning of the sample preparation to monitor the success of the sample preparation and analytical procedures on an individual sample basis. Individual compounds used as surrogates are selected based on their ability to mimic the behavior of specific target analytes held to be particularly sensitive to the sample preparation manipulations.
- Interference Check Samples: Interference check sample analysis is a QC measure unique to metals analysis using inductively coupled plasma atomic emission spectrometry. This QC sample verifies the analytical instrument's ability to overcome interferences typical of those found in samples.
- Calibrations: Method requirements for satisfactory instrument calibration are established to ensure that the instrument is capable of producing acceptable quantitative data for metals. Initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of the analytical run. Continuing calibrations demonstrate that the initial calibration is still valid by checking the performance of the instrument on a continuing basis.
- Internal Standards: Internal standards measure the gas chromatograph/ mass spectrometer sensitivity and response stability during each analysis.
- Serial Dilution: Serial dilutions are performed on at least one sample from every batch of analyses for metals to determine if physical or chemical interferences exist in the analyte determinations.

For the Phase 3 Go-Backs, Trenches and Soil Vapor Location soil data sets, accuracy was evaluated by reviewing the %R values and relative response factors of initial and continuing calibration (percent difference or percent drift [%D] for organic analyses), internal standards, surrogate spikes (organic analyses only), MS/MSD, LCS/LCSD, inductively coupled plasma (ICP) interferences, and by performing serial dilution checks during metals analyses, in conjunction with method blank, calibration blank, equipment rinsate blank, and trip blank results. These QC results assist in identifying the type and magnitude of effects that may have contributed to system error introduced from field and/or laboratory procedures.

Qualifiers were applied to applicable sample results during the validation process based on laboratory accuracy results. Details of the validation and the number of analytes qualified are discussed in the DUAR and laboratory validation reports in Appendix C.

The following Phase 3 Go-Backs, Trenches and Soil Vapor Location individual analyte results were qualified as estimated "J/UJ" based on accuracy criteria:

- Some of the dioxins, PCBs and herbicides due to confirmation column results
- Some of the metal analyte results due to serial dilutions

- Some of the TPH-EFH, TPH-GRO, pesticides, herbicides, VOCs, PCBs, and SVOC SIM results due to calibration results
- Some of the TPH-EFH, TPH-GRO, herbicides, SVOCs, SVOC SIM and energetic results due to LCSs
- Some of the dioxins, metals, glycols, terphenyls, TPH-EFH, TPH-GRO, pesticides, herbicides, VOCs, SVOCs, SVOC SIM and energetic results due to MSs
- Some of the TPH-EFH, TPH-GRO, PCBs and VOC SIM results due to surrogates

The following individual analyte results were rejected "R" based on accuracy criteria:

- One triethylene glycol result, seven herbicide results and one 2,6-dichlorophenol result based on MSs
- Eight herbicide results based on LCSs

Sample preservation, handling, and holding times are additional measures of accuracy of the data. Holding times are defined as the amount of time that elapses from collection of the sample in the field to the start of the analysis. Preservation is defined as techniques used to maintain the target analytes at concentrations representative of the source sampled. Published holding times are viewed as valid as long as the associated preservation and container requirements have been met. All holding times, sample preservation and handling criteria were met except for 16 glycol results. These results were qualified during the validation process.

In summary, sample results that have been qualified as estimated "J/UJ" due to accuracy criteria are usable for project decisions. Results that have been rejected are not usable.

4.7.3 Blank Contamination

Blanks are used to determine the level of laboratory and field contamination introduced into the samples, independent of the level of target analytes found in the sample source. Sources of sample contamination can include the containers and equipment used to collect the sample, preservatives added to the sample, other samples in transport coolers and laboratory sample storage refrigerators, standards and solutions used to calibrate instruments, glassware and reagents used to process samples, airborne contamination in the laboratory preparation area and the analytical instrument sample introduction equipment. Each analyte group has its own particular suite of common laboratory contaminants. Active measures must be performed to continually measure the ambient contamination level and steps taken to discover the source of the contamination to eliminate or minimize the levels. Random spot contamination can also occur from analytes that are not common laboratory problems but that can arise as a problem for a specific project or over a short period of time. Sample equipment decontamination practices are discussed in Section 2.5.4. Field blanks, equipment blanks, trip blanks and laboratory method blanks are analyzed to identify possible sources of contamination. The DUAR and laboratory validation reports in Appendix C discuss the results that were qualified based on field and laboratory blank contamination.

In summary, for Go-Backs, Trenches, and Soil Vapor Location samples, some dioxins and metal results in individual samples and batches of samples were qualified as nondetect “U” due to laboratory blank contamination criteria. The percentage of results qualified as nondetect based on laboratory blank contamination was less than 4.7 percent for metals and 44 percent for dioxins.

For the dioxins, method detection limits (MDLs) for this analysis are very low, reported in nanogram per kilogram (ng/kg) or parts per trillion, resulting in numerous results qualified as estimated "J." Many of these estimated values have been subsequently qualified as non-detect "U" because the compound was detected in related laboratory blanks. In the laboratory blanks, low level detections of dioxin analytes are somewhat inevitable because of the nature and universal extent of the compounds. The dioxin levels found in the blanks are well below site-related action levels. Therefore, the resulting qualification of associated sample results as nondetect or "U" does not falsely diminish identification of site-related contaminants.

ASTM International Type II water was used to generate the equipment and field blanks. ASTM International Type II water is not typically certified "clean" to the low RLs established for the low level methods used for Go-Backs, Trenches and Soil Vapor Location sampling.

Tables 4-2 and 4-3 provide a summary of analytes observed in equipment blanks and field blanks. No analytes were detected in the trip blank samples. Eighty-one percent of the detected compounds in the equipment and field blanks were below the RLs but above the MDLs. Compounds detected above the RL are highlighted yellow in the associated tables. Perchlorate was detected above the RL in one of the equipment blanks. Samples associated with this equipment blank either had nondetect concentrations for perchlorate or it was previously determined that site processes did not constitute sampling for perchlorate at the other associated locations. 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin was also detected in one of the equipment blank samples at a concentration above the RL. Associated samples either had concentrations of this analyte above the specific analyte validation blank action level or it was previously determined that site processes did not constitute sampling for dioxins at the other associated locations. The concentration of the dioxin analyte detected in the equipment blank could possibly be contributing to the concentrations detected in the samples but not at a level that required qualification based on validation protocol. Other analytes were detected in equipment and/or field blank samples above the RL indicating inherent low level contamination in the source water used. All Phase 3 equipment blanks will continue to be monitored to determine if these low level detections are consistent, thus indicating a possible deficiency in decontamination procedures and/or source water impacts that need to be addressed and corrected.

4.7.4 Representativeness, Comparability, and Sensitivity

Representativeness, comparability, and sensitivity are achieved by using EPA-approved sampling procedures and analytical methodologies. By following the procedures described in the Master FSP (CDM Smith 2012a) for this sampling event and future sampling events, sample analysis should yield results representative of environmental conditions at the time of sampling. Similarly, reasonable comparability of analytical results for this and future sampling events can be achieved if approved EPA analytical methods and standardized reporting units are employed.

4.7.4.1 Representativeness

Representativeness is a qualitative term that expresses the degree to which the sample data accurately and precisely represent the environmental conditions corresponding to the location and depth interval of sample collection. Requirements and procedures for sample collection are designed to maximize sample representativeness.

Representativeness also can be monitored by reviewing field documentation and/or performing field audits. For this report, a detailed review was performed on the CoC forms, laboratory sample confirmation logs, and data validation packages. Laboratory QA/QC requirements were included in the

Master FSP (CDM Smith 2012a) and laboratory statements of work (SOWs) to ensure that the laboratory analytical results were representative of true field conditions.

The most significant measure of representativeness is the accuracy of the sampling network and selection of appropriate locations and depths, etc. Field sampling accuracy was attained through adherence to the approved Master FSP (CDM Smith 2012a) for sample location and collection and by using approved standard operating procedures for field data collection. Therefore the data should represent, as near as possible, the actual field conditions at the time of sampling.

Representativeness has been achieved by the performed field work and laboratory analyses. The generated analytical data generated that have not been rejected are viewed to be a representative characterization of the project area.

4.7.4.2 Comparability

Comparability is a qualitative term that expresses the confidence with which a data set can be compared with another. Strict adherence to standard sample collection procedures, analytical detection limits, reporting units and analytical methods assures that data from like samples and sample conditions are comparable. This comparability is independent of laboratory personnel, data reviewers, or sampling personnel. Comparability criteria are met for the project if, based on data review, the sample collection and analytical procedures are determined to have been followed, or defined to show that variations did not affect the values reported.

To ensure comparability of data generated for the site, standard sample collection procedures and DTSC-approved analytical methods were utilized by CDM Smith. The sample analyses were performed by Eurofins Lancaster Laboratory. Utilizing such procedures and methods enables the current data to be comparable with previous and future data sets generated using similar methods.

4.7.4.3 Sensitivity

Sensitivity is related to the ability to compare analytical results with project-specific levels of interest, such as risk-based screening levels or action levels. Analytical detection limits for the various sample analytes should be below the level of interest to allow an effective comparison.

Detection Limits

The MDL study attempts to answer the question, "What is the lowest level of analyte in a sample that will result in a signal different than zero"? The study is based upon repetitive analysis of an interference-free sample spiked with a known amount of the target analyte. The MDL is a measure of the ability of the test procedure to generate a positive response for the target analyte in the absence of any other interferences from the sample.

The RL is generally defined as the lowest concentration at which an analyte can be detected in a sample and its concentration reported with a reasonable degree of accuracy and precision. For samples that do not pose a particular matrix problem, the RL is typically about three to five times higher than the MDL.

Laboratory results are reported according to rules that provide established certainty of detection and RLs. The result for an analyte is flagged with a "U" if that analyte was not detected, or qualified with a "J" flag if associated QC results fall outside the appropriate tolerance limits. Also, if an analyte is present at a concentration between the MDL and the RL, the analytical result is flagged with a "J,"

indicating an estimated quantity. Qualifying the result as an estimated concentration reflects increased uncertainty in the reported value.

Qualifiers were applied to applicable sample results by the laboratory and identified during the validation process based on sample results being reported as detected below the RL/MDL. Details of the validation and the number of results qualified are discussed in the DUAR and laboratory validation reports in Appendix C.

In summary, for all methods analyzed for Go-Backs, Trenches, and Soil Vapor Locations, results for some of the analytes were qualified as estimated due to RL criteria for dioxins, metals, hexavalent chromium, mercury, TPH-EFH, TPH-GRO, pesticides, PCB/PCTs, herbicides, VOCs, SVOCs, and SVOC SIM. For the data validated in this TM, RLs for a majority of the sample results were low enough to compare to the RL objectives stated in the Master FSP (CDM Smith 2012a). RLs above those stated in the Master FSP (CDM Smith 2012a) will be evaluated on a case by case basis to see if resampling is required.

4.8 Dioxin Data Quality and Usability

Dioxins and furans are compounds created as unintended by-products from several human activities as well as from natural causes such as forest fires. They are persistent environmental pollutants and have been shown to bioaccumulate in the environment. One main objective of their analyses is attempting to detect very low concentrations of dioxins and furans. In the attempt to achieve this goal, all dioxin data was analyzed by EPA Method 1613B. The laboratory was directed to report values that were determined to be estimated maximum possible concentrations (EMPC) values. EMPC values are characterized by a response with a signal to noise ratio of at least 2.5:1 for both of the quantitation ions, but do not meet the ion abundance ratio criteria.

An EMPC result indicates that there is the detected presence of a compound above detection level but it does not meet the appropriate QA/QC reporting level criteria to absolutely confirm whether that detected concentration is a dioxin compound identified by the analytical system. What it does indicate is a possible low level dioxin peak has been identified by the analytical instrument but its concentration level is marginally above detection level.

For the Go-Back, Trenches, and Soil Vapor Location dioxin analyses, Eurofins Lancaster Laboratory was directed to qualify any EMPC values with a "Q" qualifier in order to identify EMPC values for future evaluation. In the Appendix A tables, the "Q" qualified data, indicating an EMPC value by the laboratory, has had the qualifier "J-EMPC" added to the final qualifier column to replace the laboratory "Q" qualifier. This is to aid the data user in identifying values that are EMPCs.

Also provided in the tables are description qualifiers that were applied during validation. These are in parenthesis and are only provided to aid the data user in determining why a result was qualified. These qualifiers are not considered final qualifiers and are for informational purposes only.

Because of the nature of dioxins and furans and the objective of achieving very low reporting limits, CDM Smith has identified all EMPC values so individual data users can apply the various options of using EMPC data based on the end users goals and objectives. There is no industry standard guidance on how EMPC values are to be handled. Many EPA regions and states have their own rules when using EMPC values.

Another variable of dioxin analyses is the calculation of a toxicity equivalence (TEQ) for a sample. For a single dioxin compound, the TEQ is the product of the concentration of the dioxin compound in an environmental mixture and its corresponding toxicity equivalence factor (TEF). A TEF for a dioxin compound is a measure of the compound's toxicity relative to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). The total TEQ for the mixture is the sum of the individual TCDD TEQs across the dioxin compounds. The TCDD TEQ provides a means for determining the toxicity of a mixture of dioxin compounds in the absence of toxicity values for these dioxin compounds.

The dioxin data review policy as discussed in the EPA *Contract Laboratory Program National Functional Guidelines for Chlorinated Dibenzo-p-Dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) Data Review*, Office of Solid Waste and Emergency Response (OSWER) 9240.1-53, EPA-540-R-11-016 (EPA 2011), as well as the 2005 guidelines (EPA 2005), allows individual EPA regions flexibility in using criteria for calculating TEQ and how a data user can use EMPC results in this calculation.

In utilizing EMPC values in TEQ calculations, some data users change the value of the EMPC result to 0 when calculating TEQs. Other data users may use the result as is, not changing it to 0, and others still, will take half of the value.

In summary, in order to allow the data user to have as much information as possible from the analytical process for site data, all EMPC results have been qualified as "J-EMPC" so they can apply their chosen approach in addressing EMPC values in TEQ calculations.

4.9 Review of Selected Validation Reports

CDM Smith performed a review of the validation reports identified in Table 4-1. This review involved comparing the validation report results against the laboratory data packages as well as the validation guidance documents. All validation report results were verified against the laboratory data packages and validation guidance documents were followed as required.

4.10 Data Completeness

Completeness of the data collection program is defined as the percentage of samples planned for collection as listed in the Master FSP (CDM Smith 2012a) versus the actual number of samples collected during the field program (see equation A).

Completeness for acceptable data is defined as the percentage of acceptable data obtained judged to be valid versus the total quantity of data generated (see equation B). Acceptable data include both data that pass all the QC criteria (unqualified data) and data that may not pass all the QC criteria but had appropriate corrective actions taken (qualified but usable data).

Equation A.

$$\%\text{Completeness} = C \times \frac{100}{n}$$

Where:

C = actual number of samples collected
n = total number of samples planned

Equation B.

$$\%Completeness = Vx\frac{100}{n'}$$

Where:

V = number of measurements judged valid
n' = total number of measurements made

The overall completeness goal, as defined in the Master FSP (CDM Smith 2012a), for this sampling event is 90 percent for each analytical test for all project data.

A total of 241 soil samples including the field duplicates were collected and analyzed. Some locations required only a subsurface sample while other locations required both a surface and a subsurface sample. The number of subsurface samples to be collected at each location was not pre-determined because the total depth of each boring varies depending on the local geology. The completeness goal for the actual number of samples collected compared to the number of samples planned is considered acceptable as a sample was collected from each location (depending on shallow refusal).

The completeness goal achieved for acceptable data was 99.90 percent for Go-Backs, Trenches, and Soil Vapor Locations for the number of measurements judged to be valid versus the total number of measurements made for all samples analyzed. Table 4-4 summarizes all results that were estimated or rejected for Phase 3 Go-Backs, Trenches, and Soil Vapor Locations respectively.

The following Phase 3 Go-Back, Trenches and Soil Vapor Location individual analyte results were rejected per analyses:

- Method 8015C
  - One out of 32 glycol (triethylene glycol) results (3.12 percent)
- Method 8151A
  - Fifteen out of 140 herbicide results (10.71 percent)
- Method 8270D
  - One out of 619 SVOC (2,6-Cihlorophenol) results (0.16 percent)

Table 4-4 Summary of Data Completeness Following Data Validation – Go-Backs, Trenches, Soil Vapor Locations

	Number of Analyte Detections Without Qualifiers	Number of Estimated Results	Number of Rejected Results	Number of Nondetect Results	Number of Estimated Nondetect Results	Total Analytes Detect and Nondetect	Percent of Analyte Results Judged Valid Versus Total Analyte Results Collected
Dioxins – 1613B	145	587	--	917	34	1,683	100
Metals - 6010C	1,840	828	--	437	93	3,198	100
Metals – 6020A	212	229	--	48	3	492	100
Perchlorate - 6850	--	--	--	27	--	27	100
Hexavalent Chromium – 7199	1	5	--	6	--	12	100

Table 4-4 Summary of Data Completeness Following Data Validation – Go-Backs, Trenches, Soil Vapor Locations

	Number of Analyte Detections Without Qualifiers	Number of Estimated Results	Number of Rejected Results	Number of Nondetect Results	Number of Estimated Nondetect Results	Total Analytes Detect and Nondetect	Percent of Analyte Results Judged Valid Versus Total Analyte Results Collected
Mercury – 7471B	43	35	--	45	--	123	100
Glycols and Terphenyls – 8015B	--	2	--	48	2	52	100
Glycols – 8015C	--	--	1	16	15	32	96.87
TPH-EFH/GRO – 8015M	209	165	--	837	345	1,556	100
Pesticides – 8081B	5	31	--	577	17	630	100
PCB/PCTs – 8082A	15	31	--	1,513	1	1,560	100
Herbicides – 8151A	2	3	15	120	--	140	89.29
VOCs – 8260B	1	3	--	5,221	11	5,236	100
VOC SIM – 8260B SIM	--	--	--	--	1	1	100
SVOC – 8270D	--	19	1	577	22	619	99.83
SVOC SIM – 8270D SIM	333	420	--	2.370	64	3,187	100
Formaldehyde – 8315A	--	--	--	6	--	6	100
Energetics – 8330A	--	--	--	208	8	216	100
Completeness Total for Phase 3 Go-Backs, Trenches and Soil Vapor Location Samples Collected and Judged Valid							**99.90**

The completeness goals for both the locations sampled and the number of measurements judged to be valid were met for Phase 3 Go-Backs, Trenches and Soil Vapor Locations.

Sampling deviations from procedures described in the Master FSP (CDM Smith 2012a) are discussed in Section 2.8 of this TM. Deviations did not impact DQOs for this sampling event. The data reported and not rejected are suitable for their intended use for characterization of Area IV of SSFL. The DQIs identified in the Master FSP (CDM Smith 2012a) met appropriate criteria. The achievement of the completeness goals for the data indicates a sufficient amount of usable data has been generated for project decisions.

4.11 Assessment of Data Usability and Reconciliation with Master FSP Goals

Over 99 percent of the data validated for Go-Backs, Trenches and Soil Vapor Locations, and reported in this TM, are suitable for their intended use for site characterization. Rejected sample results are not suitable for project use. The rejected analyte results do not impact achievement of the overall project

objectives. The RLs reported generally met the expected limits proposed by the analytical laboratories in their subcontract agreements with CDM Smith.

Sample results that were qualified as estimated are usable for project decisions.

Field duplicate precision also met criteria a majority of the time. RPDs were outside criteria predominantly when the sample results were close to the RL and/or below the project required action limits. Decisions based on results close to the RL should be made with a degree of caution. The achievement of the completeness goals for number of samples collected, and the number of sample results acceptable for use provides sufficient quality data to support project decisions.

Section 5
References

CDM Smith. 2012a. *Master Field Sampling Plan for Chemical Data Gap Investigation Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California.*

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_____. *Final Phase 3 Data Gap Analysis for Subareas 5A, 5D, and 8 and Northern Buffer Zone Technical Memorandum, Santa Susana Field Laboratory, Ventura County,* (MWH Americas, Inc. 2014).

_____. *Technical Memorandum Summary of Phase 3 Trench Investigation Activities in Area IV, Santa Susana Field Laboratory, Ventura County* (MWH, September 2014).

Appendix A
Analytical Results Tables

SSFL Main Qualification Definitions and Notes

NOTE: In the Appendix A tables, samples that were analyzed by Lancaster Laboratories are identified with the letter "N" in the sample type code and samples analyzed by EMAX are identified with the word "Split" in the sample type code.

U – The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R – The data are unusable. The sample results are rejected due to serious deficiencies in meeting quality control criteria. The analyte may or may not be present in the sample.

UJ – The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

SSFL Specific Qualification Definitions

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect.
C	Calibration %RSD, r, r2 or %D were noncompliant	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits
B	Presumed contamination from preparation (method blank)	Presumed contamination from preparation (method) blank or calibration blank
L	Laboratory Control Sample/Laboratory Control Sample Duplicate %R was not within control limits	Laboratory Control Sample/Laboratory Control Sample Duplicate %R or RPD was not within control limits
Q	MS/MSD recovery was poor; RPD	MS/MSD recovery was poor.
E	LCS/LCSD RPD	MS/MSD or Duplicate RPD or difference was high.
I	Internal standard performance was unsatisfactory	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D were not within control limits
M	Instrument Performance Check (BFB or DFTPP) was noncompliant	Not applicable.
T	Presumed contamination from trip blank.	Not applicable.
F	Presumed contamination from FB or ER.	Presumed contamination from FB or ER.
D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor	Post Digestion Spike recovery was not within control limits
K	EMPC	Not applicable
Z	Compounds reported below the RL	Analytes reported below the RL and above the MDL
***#**	Unusual problems found with the data that have been described in Section 2, "Data Validation Findings." The number following the asterisk (*) will indicate the section in the validation report where a description of the problem can be found.	Unusual problems found with the data that have been described in Section 2, "Data Validation Findings." The number following the asterisk (*) will indicate the section in the validation report where a description of the problem can be found.

Appendix A1
General Analytical Methods, CAS Number and Chemical Name
Go-Backs, Trenches and Soil Vapor Locations

Analytical Method	CAS Number	Chemical Name	Alternative Chemical Name
300	14797-55-8	Nitrate [as N]	
300	14797-55-8	Nitrate	
300	16984-48-8	Fluoride	
9012B	57-12-5	Cyanide	
6010B	7429-90-5	Aluminum	
6010B	7439-89-6	Iron	
6020	7439-92-1	Lead	
6010B	7439-93-2	Lithium	
6010B	7439-95-4	Magnesium	
6010B	7439-96-5	Manganese	
7471A	7439-97-6	Mercury	
6020	7439-98-7	Molybdenum	
6020	7440-02-0	Nickel	
6020	7440-09-7	Potassium	
6020	7440-22-4	Silver	
6020	7440-23-5	Sodium	
6020	7440-24-6	Strontium	
6020	7440-28-0	Thallium	
6020	7440-31-5	Tin	
6020	7440-32-6	Titanium	
6020	7440-36-0	Antimony	
6020	7440-38-2	Arsenic	
6020	7440-41-7	Beryllium	
6020	7440-39-3	Barium	
6020	7440-42-8	Boron	
6020	7440-43-9	Cadmium	
6020	7440-47-3	Chromium	
6020	7440-48-4	Cobalt	
6020	7440-50-8	Copper	
6020	7440-62-2	Vanadium	
6020	7440-66-6	Zinc	
6020	7440-67-7	Zirconium	
6020	7440-70-2	Calcium	
6020	7723-14-0	Phosphorus	
6020	7782-49-2	Selenium	
7199	18540-29-9	Chromium (Hexavalent Compounds)	Chromium VI
314	14797-73-0	Perchlorate	
6850	14797-73-0	Perchlorate	
160.3M	MOIST	Percent Moisture	
9045M	pH	pH	
8315A	60-34-4	Methylhydrazine	
8315A	57-14-7	1,1-Dimethylhydrazine	
8015B	64-17-5	Ethanol	
8015B	67-56-1	Methanol	
8015B	67-63-0	2-Propanol	
8015M	107-21-1	Ethylene Glycol	
8015M	111-46-6	Diethylene Glycol	
8015M	57-55-6	Propylene glycol	
8015B	84-15-1	o-Terphenyl	
8015B	92-06-8	m-Terphenyl	
8015B	92-94-4	p-terphenyl	
8315A	50-00-0	Formaldehyde	
8330A	606-20-2	2,6-Dinitrotoluene	
8330A	118-96-7	2,4,6-Trinitrotoluene	
8330A	121-82-4	1,3,5-Trinitroperhydro-1,3,5-triazine	RDX
8330A	19406-51-0	4-Amino-2,6-Dinitrotoluene	
8330A	2691-41-0	Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine	HMX
8330A	35572-78-2	2-Amino-4,6-Dinitrotoluene	
8330A	479-45-8	2,4,6-Trinitrophenylmethylnitramin	Tetryl
8330A	55-63-0	Nitroglycerin	
8330A	59229-75-3	2,6-Diamino-4-nitrotoluene	

Appendix A1
General Analytical Methods, CAS Number and Chemical Name
Go-Backs, Trenches and Soil Vapor Locations

Analytical Method	CAS Number	Chemical Name	Alternative Chemical Name
8330A	6629-29-4	2,4-Diamino-6-nitrotoluene	
8330A	78-11-5	Pentaerythritol Tetranitrate	
8330A	88-72-2	2-Nitrotoluene	
8330A	99-08-1	3-Nitrotoluene	
8330A	99-35-4	1,3,5-Trinitrobenzene	
8330A	99-99-0	4-Nitrotoluene	
8330A	121-14-2	2,4-Dinitrotoluene	
8330A	98-95-3	Nitrobenzene	
8330A	99-65-0	m-Dinitrobenzene	
8151A	120-36-5	Dichlorprop	
8151A	1918-00-9	Dicamba	
8151A	75-99-0	2,2-Dichlor-Propionic Acid	
8151A	88-85-7	Dinitrobutyl Phenol	
8151A	93-65-2	Methylchlorophenoxypropionic acid	MCPP
8151A	93-72-1	2,4,5-Trichlorophenoxyacetic acid	Silvex (2,4,5-TP)
8151A	93-76-5	2,4,5-Trichlorophenoxyacetic Acid	2,4,5-T
8151A	94-74-6	2-Methyl-4-Chlorophenoxyacetic Acid	MCPA
8151A	94-75-7	Dichlorophenoxyacetic Acid	2,4-D
8151A	94-82-6	4-(2,4-dichlorophenoxy)butanoic acid	2,4 DB
8081A	8001-35-2	Chlorinated Camphene	Toxaphene
8081A	1024-57-3	Heptachlor Epoxide	
8081A	1031-07-8	Endosulfan Sulfate	
8081A	2385-85-5	Mirex	
8081A	309-00-2	Aldrin	
8081A	319-84-6	Alpha-BHC	
8081A	319-85-7	Beta-BHC	
8081A	319-86-8	Delta-BHC	
8081A	33213-65-9	Endosulfan II	
8081A	50-29-3	4,4'-DDT	
8081A	53494-70-5	Endrin Ketone	
8081A	57-74-9	Chlordane	
8081A	58-89-9	Gamma-BHC (Lindane)	
8081A	60-57-1	Dieldrin	
8081A	72-20-8	Endrin	
8081A	72-43-5	Methoxychlor	
8081A	72-54-8	4,4'-DDD	
8081A	72-55-9	4,4'-DDE	
8081A	7421-93-4	Endrin Aldehyde	
8081A	76-44-8	Heptachlor	
8081A	959-98-8	Endosulfan I	
1613B	1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin	2,3,7,8-TCDD
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	1,2,3,7,8,9-HxCDD
1613B	3268-87-9	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	OCDD
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	1,2,3,4,6,7,8-HpCDD
1613B	39001-02-0	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	OCDF
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	1,2,3,4,7,8-HxCDD
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1,2,3,7,8-PeCDD
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	2,3,7,8-TCDF
1613B	55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	1,2,3,4,7,8,9-HpCDF
1613B	57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	2,3,4,7,8-PeCDF
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1,2,3,7,8-PeCDF
1613B	57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	1,2,3,6,7,8-HxCDF
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	1,2,3,6,7,8-HxCDD
1613B	60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	2,3,4,6,7,8-HxCDF
1613B	67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	1,2,3,4,6,7,8-HpCDF
1613B	70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1,2,3,4,7,8-HxCDF
1613B	72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	1,2,3,7,8,9-HxCDF
8082	11096-82-5	Aroclor 1260	
8082	11097-69-1	Aroclor 1254	
8082	11100-14-4	Aroclor 1268	
8082	11104-28-2	Aroclor 1221	

Appendix A1
General Analytical Methods, CAS Number and Chemical Name
Go-Backs, Trenches and Soil Vapor Locations

Analytical Method	CAS Number	Chemical Name	Alternative Chemical Name
8082	11126-42-4	Aroclor 5460	
8082	11141-16-5	Aroclor 1232	
8082	12642-23-8	Aroclor 5442	
8082	12672-29-6	Aroclor 1248	
8082	12674-11-2	Aroclor 1016	
8082	37324-23-5	Aroclor 1262	
8082	53469-21-9	Aroclor 1242	
8082	63496-31-1	Aroclor 5432	
1625C	62-75-9	N-Nitrosodimethylamine	
8270C SIM	62-75-9	N-Nitrosodimethylamine	
8270C	121-14-2	2,4-Dinitrotoluene	
8270C	98-95-3	Nitrobenzene	
8270C	106-46-7	1,4-Dichlorobenzene	
8270C	120-82-1	1,2,4-Trichlorobenzene	
8270C	541-73-1	1,3-Dichlorobenzene	
8270C	87-68-3	Hexachlorobutadiene	
8270C	95-50-1	1,2-Dichlorobenzene	
8270C	100-01-6	4-Nitroaniline	
8270C	100-02-7	4-Nitrophenol	
8270C	101-55-3	4-Bromophenyl Phenyl Ether	
8270C	105-67-9	2,4-Dimethylphenol	
8270C	106-44-5	4-Methylphenol	
8270C	106-47-8	4-Chloroaniline	
8270C	108-68-9	3,5-Dimethylphenol	
8270C	108-95-2	Phenol	
8270C	111-44-4	Bis(2-Chloroethyl) ether	
8270C	111-91-1	Bis(2-Chloroethoxy) methane	
8270C	117-81-7	Bis(2-Ethylhexyl) phthalate	
8270C SIM	117-81-7	Bis(2-Ethylhexyl) phthalate	
8270C	117-84-0	Di-N-Octyl Phthalate	
8270C SIM	117-84-0	Di-N-Octyl Phthalate	
8270C	118-74-1	Hexachlorobenzene	
8270C SIM	120-12-7	Anthracene	
8270C	120-83-2	2,4-Dichlorophenol	
8270C	122-66-7	1,2-Diphenylhydrazine	
8270C	129-00-0	Pyrene	
8270C SIM	129-00-0	Pyrene	
8270C	131-11-3	Dimethylphthalate	
8270C SIM	131-11-3	Dimethylphthalate	
8270C	132-64-9	Dibenzofuran	
8270C	191-24-2	Benzo(g,h,i)perylene	
8270C SIM	191-24-2	Benzo(g,h,i)perylene	
8270C	193-39-5	Indeno(1,2,3-Cd)Pyrene	
8270C SIM	193-39-5	Indeno(1,2,3-Cd)Pyrene	
8270C	205-99-2	Benzo(b)fluoranthene	
8270C SIM	205-99-2	Benzo(b)fluoranthene	
8270C	206-44-0	Fluoranthene	
8270C SIM	206-44-0	Fluoranthene	
8270C	207-08-9	Benzo(k)fluoranthene	
8270C SIM	207-08-9	Benzo(k)fluoranthene	
8270C SIM	208-96-8	Acenaphthylene	
8270C	218-01-9	Chrysene	
8270C SIM	218-01-9	Chrysene	
8270C	39638-32-9	bis(2-Chloroisopropyl) ether	
8270C	50-32-8	Benzo(a)pyrene	
8270C SIM	50-32-8	Benzo(a)pyrene	
8270C	51-28-5	2,4-Dinitrophenol	
8270C	534-52-1	4,6-Dinitro-2-Methylphenol	
8270C	53-70-3	Dibenzo(a,h)anthracene	
8270C SIM	53-70-3	Dibenzo(a,h)anthracene	
8270C	56-55-3	Benzo(a)anthracene	

Appendix A1
General Analytical Methods, CAS Number and Chemical Name
Go-Backs, Trenches and Soil Vapor Locations

Analytical Method	CAS Number	Chemical Name	Alternative Chemical Name
8270C SIM	56-55-3	Benzo(a)anthracene	
8270C	59-50-7	4-Chloro-3-Methylphenol	
8270C	621-64-7	N-Nitroso-Di-N-Propylamine	
8270C	62-53-3	Aniline	
8270C	65-85-0	Benzoic Acid	
8270C	67-72-1	Hexachloroethane	
8270C	7005-72-3	4-Chlorophenyl Phenylether	
8270C	77-47-4	Hexachlorocyclopentadiene	
8270C	78-59-1	Isophorone	
8270C SIM	83-32-9	Acenaphthene	
8270C	84-66-2	Diethylphthalate	
8270C SIM	84-66-2	Diethylphthalate	
8270C	84-74-2	Di-N-Butylphthalate	
8270C SIM	84-74-2	Di-N-Butylphthalate	
8270C	85-01-8	Phenanthrene	
8270C SIM	85-01-8	Phenanthrene	
8270C	85-68-7	Butylbenzylphthalate	
8270C SIM	85-68-7	Butylbenzylphthalate	
8270C	86-30-6	N-Nitrosodiphenylamine	
8270C SIM	86-73-7	Fluorene	
8270C	86-74-8	Carbazole	
8270C	87-86-5	Pentachlorophenol	
8270C	88-06-2	2,4,6-Trichlorophenol	
8270C	88-74-4	2-Nitroaniline	
8270C	88-75-5	2-Nitrophenol	
8270C	90-12-0	1-Methylnaphthalene	
8270C SIM	90-12-0	1-Methylnaphthalene	
8270C	91-20-3	Naphthalene	
8270C SIM	91-20-3	Naphthalene	
8270C	91-57-6	2-Methylnaphthalene	
8270C SIM	91-57-6	2-Methylnaphthalene	
8270C	91-58-7	2-Chloronaphthalene	
8270C	91-94-1	3,3`-Dichlorobenzidine	
8270C	92-87-5	Benzidine	
8270C	95-48-7	2-Methylphenol	
8270C	95-57-8	2-Chlorophenol	
8270C	95-95-4	2,4,5-Trichlorophenol	
8270C	99-09-2	3-Nitroaniline	
8270C	100-51-6	Benzyl Alcohol	
8270C	606-20-2	2,6-Dinitrotoluene	
8015B	GROC5C12	Gasoline Range Organices (C5-C12)	GRO (C5-C12)
8015B	PHCC15C20	Extractable Fuel Hydrocarbons (C15-C20)	EFH (C15-C20)
8015B	PHCC21C30	Extractable Fuel Hydrocarbons (C21-C30)	EFH (C21-C30)
8015B	PHCC30C40	Extractable Fuel Hydrocarbons (C30-C40)	EFH (C30-C40)
8015B	PHCC8C11	Extractable Fuel Hydrocarbons (C8-C11)	EFH (C8-C11)
8260B	106-46-7	1,4-Dichlorobenzene	
8260B	120-82-1	1,2,4-Trichlorobenzene	
8260B	541-73-1	1,3-Dichlorobenzene	
8260B	87-68-3	Hexachlorobutadiene	
8260B	95-50-1	1,2-Dichlorobenzene	
8260B	99-87-6	Isopropyltoluene	
8260B	100-41-4	Ethylbenzene	
8260B	100-42-5	Styrene	
8260B	10061-01-5	cis-1,3-Dichloropropene	
8260B	10061-02-6	trans-1,3-Dichloropropene	
8260B	103-65-1	N-Propylbenzene	
8260B	104-51-8	N-Butylbenzene	
8260B	106-43-4	4-Chlorotoluene	
8260B	106-93-4	1,2-Dibromoethane	
8260B	107-06-2	1,2-Dichloroethane	
8260B	108-10-1	4-Methyl-2-Pentanone	

Appendix A1
General Analytical Methods, CAS Number and Chemical Name
Go-Backs, Trenches and Soil Vapor Locations

Analytical Method	CAS Number	Chemical Name	Alternative Chemical Name
8260B	108-67-8	1,3,5-Trimethylbenzene	
8260B	108-86-1	Bromobenzene	
8260B	108-88-3	Toluene	
8260B	108-90-7	Chlorobenzene	
8260B	110-75-8	2-Chloroethyl Vinyl Ether	
8260B SIM	123-91-1	1,4-Dioxane	
8260B	124-48-1	Dibromochloromethane	
8260B	127-18-4	Tetrachloroethene	
8260B	135-98-8	sec-Butylbenzene	
8260B	142-28-9	1,3-Dichloropropane	
8260B	156-59-2	cis-1,2-Dichloroethene	
8260B	156-60-5	trans-1,2-Dichloroethene	
8260B	1634-04-4	Methyl tert-Butyl Ether	
8260B	179601-23-1	m,p-Xylene	
8260B	56-23-5	Carbon tetrachloride	
8260B	563-58-6	1,1-Dichloropropene	
8260B	591-78-6	2-Hexanone	
8260B	594-20-7	2,2-Dichloropropane	
8260B	630-20-6	1,1,1,2-Tetrachloroethane	
8260B	67-64-1	Acetone	
8260B	67-66-3	Chloroform	
8260B	71-43-2	Benzene	
8260B	71-55-6	1,1,1-Trichloroethane	
8260B	74-83-9	Bromomethane	
8260B	74-87-3	Chloromethane	
8260B	74-95-3	Dibromomethane	
8260B	74-97-5	Bromochloromethane	
8260B	75-00-3	Chloroethane	
8260B	75-01-4	Vinyl Chloride	
8260B	75-09-2	Methylene chloride	
8260B	75-25-2	Bromoform	
8260B	75-27-4	Bromodichloromethane	
8260B	75-34-3	1,1-Dichloroethane	
8260B	75-35-4	1,1-Dichloroethene	
8260B	75-69-4	Trichlorofluoromethane	
8260B	75-71-8	Dichlorodifluoromethane	
8260B	75-88-7	1,1,1-Trichloro-2,2,2-trifluoroethane	Freon 113a
8260B	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	Freon 113
8260B	78-87-5	1,2-Dichloropropane	
8260B	78-93-3	2-Butanone	
8260B	79-00-5	1,1,2-Trichloroethane	
8260B	79-01-6	Trichloroethene	
8260B	79-34-5	1,1,2,2-Tetrachloroethane	
8260B	79-38-9	Chlorotrifluoroethene	
8260B	87-61-6	1,2,3-Trichlorobenzene	
8260B	95-47-6	o-Xylene	
8260B	95-49-8	2-Chlorotoluene	
8260B	95-63-6	1,2,4-Trimethylbenzene	
8260B	96-12-8	1,2-Dibromo-3-chloropropane	
8260B	96-18-4	1,2,3-Trichloropropane	
8260B	98-06-6	tert-Butylbenzene	
8260B	98-82-8	Isopropylbenzene	

			Sample Name	FDG2-SL-1175-SA5A-SB-2.0-3.0	FDG2-SL-875-SA5A-SB-2.0-3.0
			Sample Type	FD	N
			Sample Date	06/16/2014	06/16/2014
			SDG	PH234	PH234
			Start Depth	2	2
			End Depth	3	3
Analytic Method	CAS Number	Chemical Name	Unit		
8260B SIM	123-91-1	1,4-Dioxane	µg/kg	15 UJ S	16 UJ S

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			Sample Name	FDG2-SL-558-NBZ-SB-0.0-0.5		FDG2-SL-559-NBZ-SB-0.0-0.5		FDG2-SL-562-NBZ-SB-0.0-0.5		FDG2-SL-563-NBZ-SB-0.0-0.5		FDG2-SL-584-SA5D-SB-0.0-0.5		FDG2-SL-585-SA5D-SB-0.0-0.5	
			Sample Type	N		N		N		N		N		N	
			Sample Date	06/09/2014		06/09/2014		06/12/2014		06/12/2014		05/21/2014		05/21/2014	
			SDG	PH224		PH224		PH231		PH231		PH193		PH193	
			Start Depth	0		0		0		0		0		0	
			End Depth	0.5		0.5		0.5		0.5		0.5		0.5	
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	1	UJ (FD)	1.01	U	1.2	U	1.01	U	1.02	U	1.06	UJ (FD)
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	0.248	J-EMPC J (FD, Z)	0.18	J-EMPC J (Z)	0.149	J-EMPC J (Z)	0.305	J (Z)	17.5		3.64	J (Z)
1613B	3268-87-9	OCDD	ng/kg	50.1		24.5		71.3		150		8880	J (*#)	1670	
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	5.59		2.77	J (Z)	8.17		17.9		936		144	J (Q)
1613B	39001-02-0	OCDF	ng/kg	2.14	J (FD, Z)	10.1	J-EMPC U (B)	4.5	J (Z)	8.22	J (Z)	289		50	J (FD, Q)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.164	J-EMPC J (Z)	5.05	J-EMPC U (B)	0.129	J (Z)	0.147	J-EMPC J (Z)	7.75		1.51	J (Z)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	5	UJ (FD)	5.05	U (B)	6	U	0.128	J-EMPC J (Z)	4.35	J (Z)	0.99	J (Z)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	0.192	J-EMPC J (Z)	0.0786	J-EMPC J (Z)	1.2	J-EMPC U (B)	1.01	J-EMPC U (B)	1.64		0.835	J (Z)
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	5	U (B)	5.05	U (B)	6	J-EMPC U (B)	0.393	J-EMPC J (Z)	19.3		1.95	J (FD, Z)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	5	U (B)	5.05	J-EMPC U (B)	6	J-EMPC U (B)	5.07	U (B)	1.79	J (Z)	1.02	J (Z)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	5	U (B)	5.05	U (B)	6	J-EMPC U (B)	5.07	J-EMPC U (B)	4.19	J (Z)	1.73	J (Z)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	5	J-EMPC UJ (B, FD)	5.05	U (B)	0.167	J (Z)	0.194	J (Z)	5.11		0.955	J (FD, Z)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.359	J (Z)	5.05	U (B)	0.399	J (Z)	0.747	J (Z)	40.2		6.21	
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	5	UJ (B, FD)	5.05	J-EMPC U (B)	6	J-EMPC U (B)	5.07	J-EMPC U (B)	7.64		1.24	J (FD, Z)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	1.05	J (Z)	0.558	J (Z)	1.86	J (Z)	3.47	J (Z)	114		17.1	J (FD)
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	5	J-EMPC U (B)	5.05	J-EMPC U (B)	0.1	J-EMPC J (Z)	0.143	J (Z)	4.34	J (Z)	0.95	J (FD, Z)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	5	U (B)	5.05	J-EMPC U (B)	0.0682	J-EMPC J (Z)	0.0742	J-EMPC J (Z)	1.62	J (Z)	0.762	J (Z)

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Trench samples collected at a discrete interval.

				Sample Name		FDG2-SL-586-SA5D-SB-0.0-0.5		FDG2-SL-858-NBZ-SB-0.0-0.5		FDG2-SL-874-SA5A-SB-0.0-0.5		FDG2-SL-875-SA5A-SB-0.0-0.5		FDG2-SL-885-SA5D-SB-0.0-0.5		FDG-SL-1049-SA5C-SB-0.0-0.5	
				Sample Type		N		FD		N		N		FD		FD	
				Sample Date		05/21/2014		06/09/2014		05/20/2014		06/16/2014		05/21/2014		05/08/2014	
				SDG		PH193		PH224		PH188		PH234		PH193		PH173	
				Start Depth		0		0		0		0		0		0	
				End Depth		0.5		0.5		0.5		0.5		0.5		0.5	
Analytic Method	CAS Number	Chemical Name	Unit														
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	1.01	U (B)	0.0957	J-EMPC J (FD, Z)	0.149	J-EMPC J (Z)	0.997	U (B)	1.02	J-EMPC UJ (B, FD)	1.04	UJ (FD)		
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	1.52	J (Z)	0.448	J-EMPC J (FD, Z)	5.21	U	1.16	J (Z)	4.3	J (Z)	0.567	J (FD, Z)		
1613B	3268-87-9	OCDD	ng/kg	39.2		70.2		10.4	U (B)	738		2050		161	J (FD)		
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	2.59	J (Z)	8.57		5.21	J-EMPC U (B)	38.9		197		24.2	J (FD)		
1613B	39001-02-0	OCDF	ng/kg	1.34	J (Z)	3.67	J (FD, Z)	10.4	U (B)	14.6		104	J (FD)	6.53	J (FD, Z)		
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.05	U (B)	0.255	J-EMPC J (Z)	5.21	U	0.464	J-EMPC J (Z)	2.1	J (Z)	0.202	J (FD, Z)		
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	0.314	J (Z)	0.297	J-EMPC J (FD, Z)	5.21	J-EMPC U (B)	0.324	J (Z)	1.11	J (Z)	5.22	UJ (B, FD)		
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	0.0941	J (Z)	0.135	J (Z)	1.04	U	0.138	J-EMPC J (Z)	0.69	J (Z)	1.04	UJ (FD)		
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	5.05	U (B)	4.92	U (B)	5.21	U	0.386	J (Z)	3.43	J (FD, Z)	0.483	J (FD, Z)		
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	5.05	U (B)	4.92	J-EMPC U (B)	5.21	U	0.406	J (Z)	1.15	J (Z)	0.241	J (FD, Z)		
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	0.531	J (Z)	4.92	J-EMPC U (B)	5.21	J-EMPC U (B)	0.398	J (Z)	1.81	J (Z)	5.22	J-EMPC UJ (B, FD)		
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	5.05	U (B)	4.92	UJ (B, FD)	5.21	U	0.298	J-EMPC J (Z)	1.64	J (FD, Z)	0.272	J-EMPC J (FD, Z)		
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	1.15	J (Z)	0.442	J-EMPC J (Z)	5.21	U (B)	1.57	J (Z)	8.66		0.758	J (FD, Z)		
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	5.05	U (B)	4.92	UJ (B, FD)	5.21	U	0.373	J-EMPC J (Z)	2.15	J (FD, Z)	0.363	J-EMPC J (FD, Z)		
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	0.439	J (Z)	1.69	J (Z)	5.21	J-EMPC U (B)	4.51	J (Z)	32.8	J (FD)	2.75	J (FD, Z)		
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	0.107	J (Z)	4.92	J-EMPC U (B)	5.21	J-EMPC U (B)	0.424	J (Z)	1.95	J (FD, Z)	0.133	J (FD, Z)		
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	1.88	J (Z)	4.92	U (B)	5.21	U (B)	0.331	J (Z)	1.04	J (Z)	5.22	J-EMPC UJ (B, FD)		

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Trench samples collected at a discrete interval.

				Sample Name		FDG-SL-511-SA5C-SB-0.0-0.5		FDG-SL-748-SA5C-SB-0.0-0.5		FDG-SL-749-SA5C-SB-0.0-0.5		FDG-SL-757-SA5C-SB-0.0-0.5		FDG-SL-798-SA5B-SB-0.0-0.5		FDG-SL-841-SA5B-SB-0.0-0.5	
				Sample Type		N		N		N		N		N		N	
				Sample Date		05/08/2014		05/12/2014		05/08/2014		05/14/2014		05/07/2014		05/14/2014	
				SDG		PH173		PH175		PH173		PH177		PH172		PH177	
				Start Depth		0		0		0		0		0		0	
				End Depth		0.5		0.5		0.5		0.5		0.5		0.5	
Analytic Method	CAS Number	Chemical Name	Unit														
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	1.52		0.193	J-EMPC J (Z)	1.04	UJ (B, FD)	0.108	J-EMPC J (Z)	0.173	J (Z)	0.999	U		
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	52.2		2.31	J (Z)	8.42	J (FD)	2.26	J (Z)	18.6		0.17	J-EMPC J (Z)		
1613B	3268-87-9	OCDD	ng/kg	26100	J (*#)	607		3460	J (FD)	1650		9400	J (*#)	10.5			
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	2670	J (*#)	56.8		572	J (FD)	133		891		0.938	J (Z)		
1613B	39001-02-0	OCDF	ng/kg	584		15.3		66.6	J (FD, Q)	54.3		337		0.878	J-EMPC J (Z)		
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	26		1.03	J (Z)	3.04	J (FD, Z)	1.24	J (Z)	8.61		4.99	U		
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	11.8		0.708	J-EMPC J (Z)	1.87	J (FD, Z)	0.716	J (Z)	4.3	J-EMPC J (Z)	4.99	U		
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	0.63	J (Z)	0.801	J (Z)	0.15	J-EMPC J (FD, Z)	1.01	U	1.32		0.0638	J-EMPC J (Z)		
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	25.5		0.581	J-EMPC J (Z)	2.47	J (FD, Z)	1.21	J (Z)	7.7		0.0876	J-EMPC J (Z)		
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	3.07	J (Z)	0.439	J (Z)	0.46	J-EMPC J (FD, Z)	0.397	J (Z)	2.16	J (Z)	0.11	J-EMPC J (Z)		
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	1.75	J (Z)	0.873	J (Z)	0.388	J-EMPC J (FD, Z)	0.315	J (Z)	4.15	J (Z)	2.47	J (Z)		
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	10.1		0.684	J (Z)	1.11	J-EMPC J (FD, Z)	0.635	J (Z)	3.98	J (Z)	0.0375	J-EMPC J (Z)		
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	126		2.44	J (Z)	22.1	J (FD)	3.76	J (Z)	35.3		0.0953	J-EMPC J (Z)		
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	21.7		0.451	J-EMPC J (Z)	1.84	J (FD, Z)	0.867	J (Z)	6.01		0.0626	J-EMPC J (Z)		
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	282		6.2		29.6	J (FD, Q)	18.9		114		0.33	J (Z)		
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	6.99		0.591	J (Z)	0.945	J (FD, Z)	0.768	J (Z)	3.56	J (Z)	0.132	J-EMPC J (Z)		
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	5.3	U	0.32	J-EMPC J (Z)	5.2	J-EMPC UJ (B, FD)	0.376	J (Z)	4.9	U	0.104	J (Z)		

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Definitions are provided at the beginning of Appendix A. The letters in parenthesis can vary and there can be more than one letter.

Trench samples collected at a discrete interval.

			Sample Name	FDG-SL-842-SA5B-SB-0.0-0.5		SL-838-SA5B-SB-0.0-0.5		SL-839-SA5B-SB-0.0-0.5		SL-840-SA5B-SB-0.0-0.5		SL-843-SA5B-SB-0.0-0.5		SL-503-SA5C-TR-0.5	
			Sample Type	N		N		N		N		N		N	
			Sample Date	05/14/2014		01/13/2014		01/14/2014		01/13/2014		01/14/2014		05/29/2014	
			SDG	PH177		PH158		PH159		PH158		PH159		PH207	
			Start Depth	0		0		0		0		0		0.5	
			End Depth	0.5		0.5		0.5		0.5		0.5			
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	0.998	U	1.01	U	1.04	U	1.03	J-EMPC U (B)	0.0867	J-EMPC J (Z)	0.189	J-EMPC J (Z)
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	3.56	J (Z)	5.06	U (B)	0.261	J (Z)	0.391	J (Z)	1.01	J (Z)	4.88	J (Z)
1613B	3268-87-9	OCDD	ng/kg	1330		4.59	J (Z)	4.52	J (Z)	36.4		15		2540	
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	115		5.06	U (B)	5.18	J-EMPC U (B)	2.84	J (Z)	2.08	J (Z)	119	
1613B	39001-02-0	OCDF	ng/kg	89.9		10.1	J-EMPC U (B)	10.4	U (B)	1.4	J (Z)	11	U (B)	24.6	
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	1.67	J (Z)	5.06	J-EMPC U (B)	5.18	U	5.17	J-EMPC U (B)	5.49	J-EMPC U (B)	2.07	J (Z)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	0.657	J (Z)	0.189	J (Z)	0.0469	J-EMPC J (Z)	0.0435	J-EMPC J (Z)	0.242	J-EMPC J (Z)	1.48	J (Z)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	0.088	J-EMPC J (Z)	0.131	J-EMPC J (Z)	1.04	U	1.03	U	0.134	J-EMPC J (Z)	1.02	J-EMPC U (B)
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	2.8	J (Z)	5.06	U (B)	5.18	J-EMPC U (B)	5.17	J-EMPC U (B)	5.49	U (B)	5.12	J-EMPC U (B)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	0.167	J-EMPC J (Z)	5.06	J-EMPC U (B)	5.18	J-EMPC U (B)	5.17	J-EMPC U (B)	5.49	J-EMPC U (B)	5.12	U (B)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	4.99	J-EMPC U (B)	5.06	U (B)	5.18	J-EMPC U (B)	5.17	U	0.332	J-EMPC J (Z)	0.379	J-EMPC J (Z)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	2.43	J (Z)	5.06	U (B)	5.18	J-EMPC U (B)	5.17	U (B)	5.49	J-EMPC U (B)	0.332	J-EMPC J (Z)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	3.04	J (Z)	0.23	J-EMPC J (Z)	5.18	J-EMPC U (B)	0.321	J-EMPC J (Z)	0.665	J (Z)	4.94	J (Z)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	2.18	J (Z)	5.06	U (B)	5.18	U (B)	5.17	J-EMPC U (B)	5.49	J-EMPC U (B)	5.12	U (B)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	35.7		5.06	U (B)	5.18	J-EMPC U (B)	0.537	J (Z)	0.449	J (Z)	7.57	
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	1.26	J (Z)	5.06	U (B)	5.18	J-EMPC U (B)	5.17	U (B)	0.177	J (Z)	0.481	J (Z)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	0.253	J-EMPC J (Z)	5.06	J-EMPC U (B)	5.18	U (B)	0.293	J (Z)	0.717	J-EMPC J (Z)	0.474	J (Z)

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Trench samples collected at a discrete interval.

			Sample Name	SL-529-SA5B-TR-0.5		SL-534-SA8-TR-0.5		SL-548-SA8-TR-0.5		SL-569-SA6-TR-0.5		SL-570-SA6-TR-0.5		SL-587-SA5A-TR-0.5	
			Sample Type	N		N		N		N		N		N	
			Sample Date	05/28/2014		05/19/2014		05/19/2014		05/20/2014		05/20/2014		05/22/2014	
			SDG	PH204		PH185		PH185		PH189		PH189		PH195	
			Start Depth	0.5		0.5		0.5		0.5		0.5		0.5	
			End Depth												
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	1.04	U	1.04	U	1.07	U	1.01	U	1.02	U	1	J-EMPC U (B)
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	0.969	J (Z)	5.18	J-EMPC U (B)	0.317	J (Z)	0.212	J-EMPC J (Z)	0.507	J-EMPC J (Z)	0.488	J-EMPC J (Z)
1613B	3268-87-9	OCDD	ng/kg	347		8.27	J (Z)	20.7		28.6		118		115	
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	26.2		1.13	J (Z)	2.59	J (Z)	1.77	J (Z)	6.34		8.39	
1613B	39001-02-0	OCDF	ng/kg	8.53	J (Z)	10.4	J-EMPC U (B)	0.941	J (Z)	0.51	J-EMPC J (Z)	1.71	J (Z)	2.24	J (Z)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.2	J-EMPC U (B)	0.0451	J-EMPC J (Z)	0.0438	J-EMPC J (Z)	0.0631	J-EMPC J (Z)	0.188	J (Z)	5.02	J-EMPC U (B)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	5.2	U (B)	0.0374	J-EMPC J (Z)	0.0253	J-EMPC J (Z)	5.06	J-EMPC U (B)	5.1	U (B)	5.02	U (B)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	0.0494	J-EMPC J (Z)	0.0798	J (Z)	0.0392	J (Z)	1.01	U	0.07	J-EMPC J (Z)	1	J-EMPC U (B)
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	5.2	J-EMPC U (B)	5.18	J-EMPC U (B)	5.37	J-EMPC U (B)	5.06	U	5.1	U	5.02	U (B)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	5.2	U (B)	5.18	U	5.37	J-EMPC U (B)	5.06	J-EMPC U (B)	5.1	J-EMPC U (B)	5.02	U (B)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	5.2	J-EMPC U (B)	0.223	J-EMPC J (Z)	5.37	U (B)	5.06	J-EMPC U (B)	5.1	U (B)	5.02	U (B)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	0.279	J-EMPC J (Z)	5.18	J-EMPC U (B)	5.37	J-EMPC U (B)	5.06	J-EMPC U (B)	5.1	U (B)	5.02	U (B)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.943	J (Z)	0.14	J-EMPC J (Z)	0.23	J-EMPC J (Z)	5.06	J-EMPC U (B)	0.313	J-EMPC J (Z)	0.431	J (Z)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	5.2	U (B)	5.18	U (B)	5.37	J-EMPC U (B)	5.06	J-EMPC U (B)	5.1	J-EMPC U (B)	5.02	U (B)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	3.45	J (Z)	0.244	J (Z)	0.352	J (Z)	5.06	U (B)	0.511	J (Z)	1.03	J (Z)
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	5.2	U (B)	5.18	U (B)	5.37	J-EMPC U (B)	5.06	J-EMPC U (B)	5.1	J-EMPC U (B)	5.02	U (B)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	5.2	J-EMPC U (B)	5.18	U (B)	0.272	J (Z)	5.06	J-EMPC U (B)	5.1	U (B)	5.02	J-EMPC U (B)

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Trench samples collected at a discrete interval.

			Sample Name	SL-605-SA5C-TR-0.5		SL-611-SA8-TR-0.5		SL-636-SA5A-TR-0.5		SL-646-SA5C-TR-0.5		SL-651-SA5C-TR-0.5		SL-653-SA5C-TR-0.5	
			Sample Type	N		N		N		N		N		N	
			Sample Date	05/29/2014		05/20/2014		05/23/2014		06/04/2014		05/30/2014		06/02/2014	
			SDG	PH207		PH189		PH199		PH217		PH209		PH212	
			Start Depth	0.5		0.5		0.5		0.5		0.5		0.5	
			End Depth												
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	1.06	U	1.07	U	0.99	U	0.997	U	1.03	U	0.974	U
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	5.31	U (B)	0.182	J-EMPC J (Z)	4.95	U (B)	0.125	J-EMPC J (Z)	0.518	J-EMPC J (Z)	0.0806	J-EMPC J (Z)
1613B	3268-87-9	OCDD	ng/kg	140		29.3		39.1		31.9		83.9		10.2	
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	10.2		2.98	J (Z)	3.52	J (Z)	3.24	J (Z)	7.89		1.12	J (Z)
1613B	39001-02-0	OCDF	ng/kg	4.4	J (Z)	1.51	J-EMPC J (Z)	1.56	J (Z)	1.26	J-EMPC J (Z)	2.88	J (Z)	9.74	J-EMPC U (B)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.31	U (B)	0.0787	J-EMPC J (Z)	4.95	J-EMPC U (B)	0.0387	J-EMPC J (Z)	5.17	J-EMPC U (B)	4.87	J-EMPC U (B)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	5.31	U	5.34	U	4.95	J-EMPC U (B)	4.98	U	5.17	J-EMPC U (B)	4.87	U
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	1.06	U	1.21		0.99	U	0.0959	J-EMPC J (Z)	0.129	J-EMPC J (Z)	0.0958	J-EMPC J (Z)
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	5.31	J-EMPC U (B)	5.34	J-EMPC U (B)	4.95	U (B)	4.98	U (B)	5.17	J-EMPC U (B)	4.87	J-EMPC U (B)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	5.31	J-EMPC U (B)	0.958	J-EMPC J (Z)	4.95	J-EMPC U (B)	4.98	J-EMPC U (B)	5.17	U (B)	4.87	U
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	2.63	J (Z)	14.8		3.08	J (Z)	4.98	U (B)	5.17	U (B)	4.87	J-EMPC U (B)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	0.54	J (Z)	1.16	J (Z)	4.95	J-EMPC U (B)	4.98	J-EMPC U (B)	5.17	J-EMPC U (B)	0.043	J-EMPC J (Z)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.256	J (Z)	0.214	J-EMPC J (Z)	4.95	J-EMPC U (B)	4.98	U (B)	0.552	J (Z)	4.87	J-EMPC U (B)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	5.31	U (B)	0.415	J (Z)	4.95	U (B)	4.98	U (B)	5.17	U (B)	0.0708	J-EMPC J (Z)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	1.66	J (Z)	0.792	J-EMPC J (Z)	0.686	J (Z)	0.602	J (Z)	1.13	J (Z)	4.87	U (B)
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	5.31	U (B)	5.34	U (B)	4.95	U (B)	4.98	J-EMPC U (B)	5.17	J-EMPC U (B)	4.87	J-EMPC U (B)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	5.31	J-EMPC U (B)	5.34	U	4.95	U (B)	4.98	J-EMPC U (B)	0.448	J-EMPC J (Z)	4.87	U

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Trench samples collected at a discrete interval.

			Sample Name	SL-655-SA5C-TR-0.5		SL-686-SA6-TR-0.5		SL-693-SA5B-TR-0.5		SL-699-SA5B-TR-0.5		SL-707-SA5B-TR-0.5		SL-730-SA5A-TR-0.5	
			Sample Type	N		N		N		N		N		N	
			Sample Date	06/04/2014		05/21/2014		05/27/2014		05/28/2014		05/27/2014		05/22/2014	
			SDG	PH217		PH192		PH201		PH204		PH201		PH195	
			Start Depth	0.5		0.5		0.5		0.5		0.5		0.5	
			End Depth												
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	0.0903	J (Z)	0.424	J (Z)	0.991	U	0.999	J-EMPC U (B)	0.179	J (Z)	1.99	
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	0.32	J-EMPC J (Z)	14.7		0.665	J (Z)	0.998	J (Z)	6.81		2.33	J (Z)
1613B	3268-87-9	OCDD	ng/kg	11.2		8840		120		576		3060		1050	
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	1.27	J-EMPC J (Z)	409		10.7		35.6		329		90.2	
1613B	39001-02-0	OCDF	ng/kg	0.496	J (Z)	83.2		5.75	J (Z)	12.1		250		68.2	
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.0708	J-EMPC J (Z)	7		4.95	U (B)	0.36	J (Z)	3.45	J (Z)	1.21	J (Z)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	5.08	U (B)	4.34	J (Z)	0.126	J-EMPC J (Z)	4.99	J-EMPC U (B)	1.88	J (Z)	0.885	J (Z)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	0.0773	J (Z)	1.49		0.991	U	0.162	J-EMPC J (Z)	0.101	J-EMPC J (Z)	0.863	J (Z)
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	5.08	U (B)	1.28	J (Z)	4.95	U (B)	4.99	U (B)	3.83	J (Z)	2.29	J (Z)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	5.08	U (B)	1.44	J (Z)	0.0787	J-EMPC J (Z)	4.99	U (B)	0.58	J-EMPC J (Z)	1.37	J (Z)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	5.08	U (B)	1.77	J (Z)	0.243	J (Z)	0.891	J (Z)	0.381	J (Z)	1.95	J-EMPC J (Z)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	5.08	J-EMPC U (B)	0.938	J (Z)	0.19	J (Z)	0.517	J-EMPC J (Z)	1.66	J (Z)	1.55	J (Z)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.214	J-EMPC J (Z)	15.2		0.572	J-EMPC J (Z)	1.53	J (Z)	10.3		3.68	J (Z)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	5.08	J-EMPC U (B)	1.25	J (Z)	0.157	J-EMPC J (Z)	0.475	J (Z)	2.32	J (Z)	1.63	J (Z)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	5.08	J-EMPC U (B)	23.9		2.17	J (Z)	5.6		70.4		23.4	
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	5.08	U (B)	1.56	J (Z)	4.95	J-EMPC U (B)	4.99	U (B)	2.09	J (Z)	1.34	J (Z)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	5.08	U (B)	0.698	J (Z)	0.45	J-EMPC J (Z)	0.982	J (Z)	0.839	J (Z)	0.692	J (Z)

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-1175-SA5A-SB-2.0-3.0		FDG2-SL-586-SA5D-SB-2.0-3.0		FDG2-SL-875-SA5A-SB-2.0-3.0		FDG-SL-511-SA5C-SB-2.0-3.0		SL-529-SA5B-TR-2.0		SL-570-SA6-TR-2.0	
			Sample Type	FD		N		N		N		N		N	
			Sample Date	06/16/2014		05/21/2014		06/16/2014		05/08/2014		05/28/2014		05/20/2014	
			SDG	PH234		PH193		PH234		PH173		PH204		PH189	
			Start Depth	2		2		2		2		2		2	
			End Depth	3		3		3		3					
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	0.976	U	1.02	J-EMPC U (B)	1	U	1.01	J-EMPC U (B)	1.08	U	1.03	U
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	1.8	J (Z)	0.0395	J (Z)	1.19	J (Z)	21.9		5.41	J-EMPC U (B)	0.183	J-EMPC J (Z)
1613B	3268-87-9	OCDD	ng/kg	2800	J (FD)	10.2	U (B)	980	J (FD, Q)	10200	J (*#)	80.9		4.52	J (Z)
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	104	J (FD)	5.11	U (B)	35.5	J (FD)	1210		8.73		5.14	J-EMPC U (B)
1613B	39001-02-0	OCDF	ng/kg	32	J (FD)	10.2	U (B)	10	J (FD, Z)	257		1.57	J (Z)	10.3	J-EMPC U (B)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.59	J (FD, Z)	5.11	J-EMPC U (B)	0.225	J-EMPC J (FD, Z)	10.7		5.41	U (B)	5.14	U
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	4.88	J-EMPC UJ (B, FD)	0.0245	J-EMPC J (Z)	5.01	J-EMPC UJ (B, FD)	4.52	J (Z)	5.41	U (B)	5.14	U
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	0.172	J-EMPC J (FD, Z)	1.02	U	0.102	J (FD, Z)	0.264	J (Z)	1.08	U	1.03	U
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	0.366	J (FD, Z)	5.11	U (B)	5.01	UJ (B, FD)	11.7		5.41	J-EMPC U (B)	5.14	J-EMPC U (B)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	0.31	J-EMPC J (FD, Z)	5.11	U	0.162	J-EMPC J (FD, Z)	1.5	J (Z)	5.41	J-EMPC U (B)	5.14	J-EMPC U (B)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	0.359	J-EMPC J (Z)	5.11	U (B)	5.01	U (B)	0.761	J (Z)	0.354	J (Z)	5.14	J-EMPC U (B)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	0.29	J-EMPC J (Z)	5.11	J-EMPC U (B)	0.219	J-EMPC J (Z)	4.44	J (Z)	5.41	J-EMPC U (B)	5.14	U
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	2.81	J (FD, Z)	0.0356	J (Z)	1.31	J (FD, Z)	54.7		5.41	U (B)	5.14	U (B)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	0.491	J (Z)	5.11	U (B)	0.304	J-EMPC J (Z)	9.77		5.41	U (B)	5.14	J-EMPC U (B)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	8.99	J (FD)	5.11	U (B)	3.21	J (FD, Z)	137		0.674	J-EMPC J (Z)	5.14	J-EMPC U (B)
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	0.529	J (FD, Z)	0.0367	J-EMPC J (Z)	0.252	J (FD, Z)	3.42	J (Z)	5.41	J-EMPC U (B)	5.14	U (B)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	0.505	J (Z)	5.11	J-EMPC U (B)	0.406	J-EMPC J (Z)	5.04	U	5.41	J-EMPC U (B)	5.14	J-EMPC U (B)

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Trench samples collected at a discrete interval.

			Sample Name	SL-569-SA6-TR-2.5		FDG2-SL-877-SA5A-SB-3.0-4.0		SL-529-SA5B-TR-3.0		SL-693-SA5B-TR-3.0		SL-699-SA5B-TR-3.0		SL-707-SA5B-TR-3.0	
			Sample Type	N		N		N		N		N		N	
			Sample Date	05/20/2014		06/16/2014		05/28/2014		05/28/2014		05/28/2014		05/27/2014	
			SDG	PH189		PH234		PH204		PH204		PH204		PH201	
			Start Depth	2.5		3		3		3		3		3	
			End Depth			4									
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	1.02	U	0.999	U	1.04	U (B)	1.03	U	1.03	J-EMPC U (B)	1.02	U
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	5.12	U (B)	4.99	J-EMPC U (B)	0.459	J-EMPC J (Z)	5.13	J-EMPC U (B)	0.438	J-EMPC J (Z)	0.313	J (Z)
1613B	3268-87-9	OCDD	ng/kg	10.2	U (B)	96.7		241		30.8		97.4		112	
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	5.12	U (B)	3.38	J (Z)	17.2		2.18	J (Z)	7.91		11.1	
1613B	39001-02-0	OCDF	ng/kg	10.2	J-EMPC U (B)	1.08	J (Z)	5.73	J (Z)	10.3	J-EMPC U (B)	5.64	J (Z)	9.89	J (Z)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.12	U	0.052	J (Z)	5.2	U (B)	5.13	J-EMPC U (B)	5.13	J-EMPC U (B)	5.09	J-EMPC U (B)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	5.12	U	4.99	J-EMPC U (B)	5.2	J-EMPC U (B)	5.13	J-EMPC U (B)	5.13	U (B)	5.09	U
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	1.02	U	0.999	U	0.0527	J (Z)	1.03	U	0.108	J (Z)	1.02	U
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	5.12	J-EMPC U (B)	4.99	J-EMPC U (B)	5.2	U (B)	5.13	J-EMPC U (B)	5.13	U (B)	5.09	J-EMPC U (B)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	5.12	J-EMPC U (B)	4.99	J-EMPC U (B)	5.2	U (B)	5.13	J-EMPC U (B)	5.13	U (B)	5.09	J-EMPC U (B)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	5.12	J-EMPC U (B)	4.99	J-EMPC U (B)	5.2	U (B)	5.13	J-EMPC U (B)	5.13	J-EMPC U (B)	5.09	U (B)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	5.12	U (B)	4.99	J-EMPC U (B)	5.2	U (B)	5.13	J-EMPC U (B)	5.13	J-EMPC U (B)	5.09	J-EMPC U (B)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.12	J-EMPC U (B)	4.99	J-EMPC U (B)	0.623	J-EMPC J (Z)	5.13	J-EMPC U (B)	0.458	J-EMPC J (Z)	0.389	J (Z)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	5.12	J-EMPC U (B)	4.99	J-EMPC U (B)	5.2	J-EMPC U (B)	5.13	J-EMPC U (B)	5.13	J-EMPC U (B)	0.134	J-EMPC J (Z)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	5.12	J-EMPC U (B)	0.322	J (Z)	2.28	J (Z)	0.524	J (Z)	1.72	J (Z)	2.55	J (Z)
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	5.12	J-EMPC U (B)	4.99	J-EMPC U (B)	5.2	J-EMPC U (B)	5.13	J-EMPC U (B)	5.13	U (B)	0.134	J-EMPC J (Z)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	5.12	J-EMPC U (B)	0.105	J-EMPC J (Z)	5.2	J-EMPC U (B)	5.13	J-EMPC U (B)	5.13	U (B)	5.09	J-EMPC U (B)

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Trench samples collected at a discrete interval.

		Sample Name		SL-636-SA5A-TR-3.5		SL-693-SA5B-TR-3.5		FDG2-SL-1174-SA5A-SB-4.0-5.0		FDG2-SL-584-SA5D-SB-4.0-5.0		FDG2-SL-585-SA5D-SB-4.0-5.0		FDG2-SL-874-SA5A-SB-4.0-5.0	
		Sample Type		N		N		N		N		N		N	
		Sample Date		05/23/2014		05/27/2014		05/20/2014		05/21/2014		05/21/2014		05/20/2014	
		SDG		PH199		PH201		PH188		PH193		PH193		PH188	
		Start Depth		3.5		3.5		4		4		4		4	
		End Depth						5		5		5		5	
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	1.02	J-EMPC U (B)	1.02	U	1.08	U	1.04	U	1.13	U	1.05	U
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	0.545	J (Z)	0.0802	J-EMPC J (Z)	0.392	J (Z)	0.0748	J-EMPC J (Z)	0.0701	J-EMPC J (Z)	0.447	J (Z)
1613B	3268-87-9	OCDD	ng/kg	3.87	J (Z)	1.7	J (Z)	6.72	J (FD, Z)	7.55	J (Z)	4.25	J (Z)	14	J-EMPC J (FD)
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	5.09	U (B)	5.11	U (B)	0.842	J (FD, Z)	0.912	J-EMPC J (Z)	5.66	J-EMPC U (B)	1.76	J (FD, Z)
1613B	39001-02-0	OCDF	ng/kg	10.2	J-EMPC U (B)	10.2	J-EMPC U (B)	0.5	J (FD, Z)	10.4	U (B)	11.3	J-EMPC U (B)	0.953	J (FD, Z)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.09	J-EMPC U (B)	5.11	U	5.38	UJ (FD)	5.19	J-EMPC U (B)	5.66	J-EMPC U (B)	0.0535	J-EMPC J (FD, Z)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	5.09	U (B)	5.11	U	5.38	J-EMPC U (B)	0.0676	J-EMPC J (Z)	0.0931	J-EMPC J (Z)	5.27	J-EMPC U (B)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	1.02	U	1.02	U	0.122	J-EMPC J (FD, Z)	1.04	U	1.13	U	1.05	UJ (FD)
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	5.09	J-EMPC U (B)	5.11	U	5.38	J-EMPC U (B)	5.19	J-EMPC U (B)	5.66	J-EMPC U (B)	5.27	U (B)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	5.09	U (B)	5.11	U	5.38	J-EMPC U (B)	5.19	J-EMPC U (B)	5.66	J-EMPC U (B)	5.27	U (B)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	5.09	U (B)	5.11	U	5.38	J-EMPC U (B)	5.19	J-EMPC U (B)	5.66	J-EMPC U (B)	5.27	U (B)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	5.09	U	5.11	U (B)	5.38	J-EMPC U (B)	5.19	J-EMPC U (B)	5.66	J-EMPC U (B)	5.27	J-EMPC U (B)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.09	J-EMPC U (B)	0.054	J-EMPC J (Z)	0.297	J-EMPC J (Z)	0.126	J-EMPC J (Z)	0.0755	J (Z)	0.394	J-EMPC J (Z)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	5.09	J-EMPC U (B)	5.11	U	5.38	J-EMPC U (B)	5.19	U (B)	5.66	J-EMPC U (B)	5.27	U (B)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	5.09	J-EMPC U (B)	5.11	J-EMPC U (B)	5.38	UJ (B, FD)	5.19	J-EMPC U (B)	5.66	J-EMPC U (B)	0.386	J-EMPC J (FD, Z)
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	5.09	U (B)	5.11	J-EMPC U (B)	5.38	J-EMPC U (B)	0.049	J-EMPC J (Z)	0.0625	J (Z)	5.27	J-EMPC U (B)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	5.09	J-EMPC U (B)	5.11	J-EMPC U (B)	0.37	J (Z)	5.19	U (B)	5.66	U (B)	0.422	J-EMPC J (Z)

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-876-SA5A-SB-4.0-5.0		FDG-SL-748-SA5C-SB-4.0-5.0		FDG-SL-757-SA5C-SB-4.0-5.0		FDG-SL-841-SA5B-SB-4.0-5.0		FDG-SL-842-SA5B-SB-4.0-5.0		SL-838-SA5B-SB-4.0-5.0	
			Sample Type	N		N		N		N		N		N	
			Sample Date	06/16/2014		05/12/2014		05/14/2014		05/14/2014		05/14/2014		01/13/2014	
			SDG	PH234		PH175		PH177		PH177		PH177		PH158	
			Start Depth	4		4		4		4		4		4	
			End Depth	5		5		5		5		5		5	
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	1.02	J-EMPC U (B)	1.03	U	1.09	U	0.123	J-EMPC J (Z)	0.101	J-EMPC J (Z)	1.06	J-EMPC UJ (B, FD)
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	0.35	J (Z)	5.15	U	1.25	J (Z)	0.541	J (Z)	4.09	J (Z)	5.28	J-EMPC U (B)
1613B	3268-87-9	OCDD	ng/kg	112		6.71	J (Z)	1000		1.69	J (Z)	1430		9.67	J (Z)
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	5.89		0.715	J (Z)	68		5.34	J-EMPC U (B)	118		0.807	J-EMPC J (Z)
1613B	39001-02-0	OCDF	ng/kg	1.84	J-EMPC J (Z)	10.3	J-EMPC U (B)	33.4		10.7	J-EMPC U (B)	81.8		10.6	U (B)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.193	J-EMPC J (Z)	5.15	U	0.485	J (Z)	0.0809	J-EMPC J (Z)	2.01	J (Z)	5.28	J-EMPC UJ (B, FD)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	5.09	J-EMPC U (B)	5.15	U	0.364	J-EMPC J (Z)	0.21	J-EMPC J (Z)	0.888	J-EMPC J (Z)	0.184	J (FD, Z)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	1.02	U	1.03	U	0.0666	J (Z)	0.156	J (Z)	1.05	U	0.0752	J-EMPC J (FD, Z)
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	5.09	J-EMPC U (B)	5.15	J-EMPC U (B)	0.694	J-EMPC J (Z)	0.0517	J-EMPC J (Z)	2.6	J (Z)	5.28	J-EMPC U (B)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	5.09	J-EMPC U (B)	5.15	U	0.0922	J-EMPC J (Z)	0.265	J (Z)	0.17	J-EMPC J (Z)	5.28	J-EMPC U (B)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	5.09	U (B)	5.15	U	5.46	J-EMPC U (B)	0.465	J-EMPC J (Z)	5.24	J-EMPC U (B)	5.28	U (B)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	5.09	J-EMPC U (B)	5.15	U	0.321	J (Z)	0.158	J (Z)	2.11	J (Z)	5.28	J-EMPC U (B)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.35	J-EMPC J (Z)	0.0501	J (Z)	2.19	J (Z)	0.341	J (Z)	3.31	J (Z)	0.188	J (Z)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	5.09	J-EMPC U (B)	5.15	U	0.516	J-EMPC J (Z)	0.0989	J-EMPC J (Z)	2.17	J (Z)	5.28	J-EMPC U (B)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	0.592	J (Z)	5.15	J-EMPC U (B)	11.4		5.34	J-EMPC U (B)	32.9		5.28	U (B)
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	5.09	J-EMPC U (B)	5.15	U	0.43	J (Z)	0.164	J-EMPC J (Z)	1.26	J (Z)	5.28	U (B)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	0.211	J (Z)	5.15	U	0.122	J (Z)	0.337	J (Z)	0.26	J-EMPC J (Z)	0.193	J-EMPC J (Z)

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Trench samples collected at a discrete interval.

			Sample Name	SL-839-SA5B-SB-4.0-5.0		SL-840-SA5B-SB-4.0-5.0		SL-843-SA5B-SB-4.0-5.0		SL-503-SA5C-TR-5.0		SL-534-SA8-TR-5.0		SL-548-SA8-TR-5.0	
			Sample Type	N		N		N		N		N		N	
			Sample Date	01/14/2014		01/13/2014		01/14/2014		05/29/2014		05/19/2014		05/19/2014	
			SDG	PH159		PH158		PH159		PH207		PH185		PH185	
			Start Depth	4		4		4		5		5		5	
			End Depth	5		5		5							
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	1.08	U	1.08	J-EMPC U (B)	0.137	J-EMPC J (Z)	1.11	U	1.04	U	1.15	U
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	0.299	J (Z)	5.41	J-EMPC U (B)	0.366	J-EMPC J (Z)	5.53	U (B)	5.18	J-EMPC U (B)	5.77	U
1613B	3268-87-9	OCDD	ng/kg	2.31	J-EMPC J (Z)	4.65	J (Z)	10.6	J (Z)	15.7		4.14	J (Z)	11.5	U (B)
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	5.42	J-EMPC U (B)	0.578	J-EMPC J (Z)	1.18	J (Z)	0.814	J (Z)	0.393	J (Z)	5.77	U (B)
1613B	39001-02-0	OCDF	ng/kg	10.8	J-EMPC U (B)	10.8	U (B)	11.3	U (B)	11.1	J-EMPC U (B)	0.781	J-EMPC J (Z)	11.5	J-EMPC UJ (B, FD)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.42	UJ (FD)	5.41	U	5.63	J-EMPC U (B)	5.53	U	0.0213	J-EMPC J (Z)	0.031	J-EMPC J (Z)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	0.093	J-EMPC J (FD, Z)	5.41	U	0.311	J (Z)	5.53	U	0.0283	J-EMPC J (Z)	0.0232	J-EMPC J (FD, Z)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	1.08	UJ (FD)	1.08	U	0.149	J-EMPC J (Z)	1.11	U	1.04	U	1.15	U
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	5.42	J-EMPC UJ (B, FD)	5.41	J-EMPC U (B)	5.63	U (B)	5.53	J-EMPC U (B)	5.18	U (B)	5.77	J-EMPC U (B)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	5.42	J-EMPC UJ (B, FD)	5.41	J-EMPC U (B)	5.63	U (B)	5.53	J-EMPC U (B)	5.18	J-EMPC U (B)	5.77	J-EMPC U (B)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	5.42	J-EMPC U (B)	5.41	J-EMPC U (B)	0.444	J-EMPC J (Z)	0.0542	J (Z)	5.18	U (B)	5.77	UJ (B, FD)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	5.42	J-EMPC UJ (B, FD)	5.41	J-EMPC U (B)	0.247	J-EMPC J (Z)	5.53	U	5.18	J-EMPC U (B)	5.77	J-EMPC UJ (B, FD)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.42	J-EMPC U (B)	5.41	U (B)	0.275	J (Z)	5.53	J-EMPC U (B)	5.18	U (B)	5.77	J-EMPC UJ (B, FD)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	5.42	UJ (B, FD)	5.41	J-EMPC U (B)	5.63	J-EMPC U (B)	5.53	J-EMPC U (B)	5.18	J-EMPC U (B)	5.77	J-EMPC UJ (B, FD)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	5.42	J-EMPC U (B)	5.41	U (B)	5.63	J-EMPC U (B)	5.53	J-EMPC U (B)	5.18	U (B)	5.77	J-EMPC UJ (B, FD)
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	5.42	J-EMPC UJ (B, FD)	5.41	J-EMPC U (B)	0.222	J (Z)	5.53	U (B)	5.18	J-EMPC U (B)	5.77	UJ (B, FD)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	5.42	U (B)	5.41	J-EMPC U (B)	5.63	U (B)	5.53	J-EMPC U (B)	5.18	J-EMPC U (B)	5.77	U (B)

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Definitions are provided at the beginning of Appendix A. The letters in parenthesis can vary and there can be more than one letter.

Trench samples collected at a discrete interval.

			Sample Name	SL-605-SA5C-TR-5.0		SL-611-SA8-TR-5.0		SL-646-SA5C-TR-5.0		SL-651-SA5C-TR-5.0		SL-653-SA5C-TR-5.0		SL-655-SA5C-TR-5.0	
			Sample Type	N		N		N		N		N		N	
			Sample Date	05/29/2014		05/20/2014		06/04/2014		05/30/2014		06/02/2014		06/04/2014	
			SDG	PH207		PH189		PH217		PH209		PH212		PH217	
			Start Depth	5		5		5		5		5		5	
			End Depth												
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	0.0572	J-EMPC J (Z)	0.0883	J-EMPC J (Z)	1.03	U	0.061	J-EMPC J (FD, Z)	0.26	J-EMPC J (Z)	1.01	U
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	5.37	U (B)	5.33	U (B)	5.17	J-EMPC U (B)	5.11	J-EMPC UJ (B, FD)	0.104	J-EMPC J (Z)	5.03	J-EMPC U (B)
1613B	3268-87-9	OCDD	ng/kg	52.2		10.7	U (B)	1.62	J (Z)	13.8		3.06	J (Z)	5.01	J (Z)
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	6.56		5.33	J-EMPC U (B)	5.17	J-EMPC U (B)	2.1	J (Z)	5.01	U (B)	0.795	J (Z)
1613B	39001-02-0	OCDF	ng/kg	2.4	J (Z)	10.7	U (B)	10.3	J-EMPC U (B)	10.2	U (B)	10	J-EMPC U (B)	10.1	J-EMPC U (B)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.37	U	5.33	U	5.17	U	5.11	J-EMPC U (B)	5.01	U	5.03	U
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	5.37	J-EMPC U (B)	5.33	J-EMPC U (B)	5.17	U	5.11	UJ (B, FD)	0.112	J-EMPC J (Z)	5.03	U
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	1.07	J-EMPC U (B)	1.07	U	1.03	U	1.02	U	1	U	1.01	U
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	5.37	U (B)	5.33	U	5.17	U	5.11	J-EMPC U (B)	5.01	J-EMPC U (B)	5.03	U (B)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	5.37	J-EMPC U (B)	5.33	U (B)	5.17	J-EMPC U (B)	5.11	J-EMPC UJ (B, FD)	5.01	J-EMPC U (B)	5.03	U (B)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	0.265	J (Z)	5.33	J-EMPC U (B)	5.17	U	5.11	U (B)	5.01	J-EMPC U (B)	5.03	J-EMPC U (B)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	5.37	U (B)	5.33	J-EMPC U (B)	5.17	J-EMPC U (B)	5.11	J-EMPC U (B)	5.01	U	5.03	J-EMPC U (B)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.37	J-EMPC U (B)	5.33	U	5.17	J-EMPC U (B)	5.11	J-EMPC UJ (B, FD)	5.01	U	5.03	U (B)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	5.37	J-EMPC U (B)	5.33	J-EMPC U (B)	5.17	J-EMPC U (B)	5.11	U (B)	5.01	U	5.03	J-EMPC U (B)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	0.769	J (Z)	5.33	U (B)	5.17	J-EMPC U (B)	0.321	J (Z)	5.01	U (B)	5.03	J-EMPC U (B)
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	5.37	J-EMPC U (B)	5.33	U	5.17	J-EMPC U (B)	5.11	U (B)	5.01	J-EMPC U (B)	5.03	J-EMPC U (B)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	5.37	J-EMPC U (B)	5.33	J-EMPC U (B)	5.17	J-EMPC U (B)	5.11	UJ (FD)	5.01	J-EMPC U (B)	5.03	U (B)

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Trench samples collected at a discrete interval.

			Sample Name	SL-686-SA6-TR-5.0		SL-693-SA5B-TR-5.0		SL-848-SA8-TR-5.0		SL-951-SA5C-TR-5.0		SL-587-SA5A-TR-5.5		SL-887-SA5A-TR-5.5	
			Sample Type	N		N		FD		FD		N		N	
			Sample Date	05/21/2014		05/27/2014		05/19/2014		05/30/2014		05/22/2014		05/22/2014	
			SDG	PH192		PH201		PH185		PH209		PH195		PH195	
			Start Depth	5		5		5		5		5.5		5.5	
			End Depth												
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	1.02	U	1.04	U	1.12	U	1.04	UJ (FD)	1.08	U	1.11	U
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	0.129	J (Z)	0.178	J (Z)	5.59	U	5.18	J-EMPC UJ (B, FD)	5.4	J-EMPC U (B)	5.53	J-EMPC U (B)
1613B	3268-87-9	OCDD	ng/kg	41.2		7.98	J (Z)	11.2	U (B)	11.1		301	J (FD, Q)	175	J (FD)
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	2.42	J-EMPC J (Z)	0.885	J-EMPC J (Z)	5.59	J-EMPC U (B)	1.55	J (Z)	17.4	J (FD)	10.3	J (FD)
1613B	39001-02-0	OCDF	ng/kg	10.2	J-EMPC U (B)	10.4	U (B)	11.2	J-EMPC UJ (B, FD)	10.4	U (B)	8.04	J (Z)	5.35	J (Z)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.0604	J-EMPC J (Z)	5.21	U	0.0245	J-EMPC J (Z)	5.18	J-EMPC U (B)	5.4	J-EMPC U (B)	5.53	J-EMPC U (B)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	0.116	J (Z)	0.045	J-EMPC J (Z)	5.59	UJ (FD)	5.18	UJ (FD)	5.4	U (B)	5.53	J-EMPC U (B)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	1.02	U	1.04	U	1.12	U	1.04	U	1.08	U	1.11	U
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	5.09	J-EMPC U (B)	5.21	U (B)	5.59	J-EMPC U (B)	5.18	J-EMPC U (B)	0.592	J (Z)	0.4	J (Z)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	5.09	U (B)	5.21	U (B)	5.59	J-EMPC U (B)	5.18	J-EMPC UJ (B, FD)	5.4	J-EMPC U (B)	5.53	U (B)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	0.119	J-EMPC J (Z)	5.21	U (B)	5.59	UJ (B, FD)	5.18	J-EMPC U (B)	5.4	J-EMPC U (B)	5.53	U (B)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	0.0737	J-EMPC J (Z)	5.21	U (B)	5.59	UJ (FD)	5.18	J-EMPC U (B)	0.255	J (Z)	0.249	J-EMPC J (Z)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.0889	J-EMPC J (Z)	0.103	J (Z)	5.59	UJ (FD)	5.18	J-EMPC UJ (B, FD)	0.42	J-EMPC J (Z)	0.341	J-EMPC J (Z)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	0.0398	J-EMPC J (Z)	5.21	J-EMPC U (B)	5.59	UJ (B, FD)	5.18	J-EMPC U (B)	0.331	J (Z)	5.53	U (B)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	5.09	J-EMPC U (B)	5.21	U (B)	5.59	J-EMPC UJ (B, FD)	5.18	U (B)	3.75	J (Z)	2.45	J (Z)
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	5.09	U (B)	5.21	J-EMPC U (B)	5.59	UJ (B, FD)	5.18	U (B)	0.397	J-EMPC J (FD, Z)	5.53	J-EMPC UJ (B, FD)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	5.09	J-EMPC U (B)	5.21	J-EMPC U (B)	5.59	J-EMPC U (B)	5.18	J-EMPC UJ (B, FD)	5.4	U (B)	5.53	U (B)

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Trench samples collected at a discrete interval.

			Sample Name	SL-570-SA6-TR-6.0		SL-730-SA5A-TR-6.0		SL-840-SA5B-SB-7.0-8.0		SL-843-SA5B-SB-7.0-8.0		SL-503-SA5C-TR-7.5		SL-636-SA5A-TR-7.5	
			Sample Type	N		N		N		N		N		N	
			Sample Date	05/20/2014		05/22/2014		01/13/2014		01/14/2014		05/29/2014		05/23/2014	
			SDG	PH189		PH195		PH158		PH159		PH207		PH199	
			Start Depth	6		6		7		7		7.5		7.5	
			End Depth					8		8					
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	1.06	U	1.07	J-EMPC U (B)	1.13	U	1.11	U	1.04	U	1.02	U
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	5.3	J-EMPC U (B)	5.35	J-EMPC U (B)	5.66	U (B)	0.194	J-EMPC J (Z)	5.2	J-EMPC U (B)	5.12	J-EMPC U (B)
1613B	3268-87-9	OCDD	ng/kg	10.6	U (B)	4.8	J (Z)	1.77	J (Z)	36.6		9.95	J (Z)	10.2	U (B)
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	5.3	U (B)	0.538	J (Z)	5.66	U (B)	3.3	J (Z)	5.2	U (B)	5.12	J-EMPC U (B)
1613B	39001-02-0	OCDF	ng/kg	10.6	J-EMPC U (B)	10.7	U (B)	11.3	J-EMPC U (B)	1.46	J (Z)	10.4	J-EMPC U (B)	10.2	J-EMPC U (B)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.3	U	5.35	J-EMPC U (B)	5.66	U	5.56	J-EMPC U (B)	5.2	U	5.12	J-EMPC U (B)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	5.3	J-EMPC U (B)	5.35	J-EMPC U (B)	5.66	U	0.105	J-EMPC J (Z)	5.2	J-EMPC U (B)	5.12	U
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	0.0531	J-EMPC J (Z)	1.07	U	1.13	U	0.0741	J-EMPC J (Z)	1.04	U	1.02	U
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	5.3	J-EMPC U (B)	5.35	J-EMPC U (B)	5.66	J-EMPC U (B)	5.56	J-EMPC U (B)	5.2	J-EMPC U (B)	5.12	U (B)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	5.3	J-EMPC U (B)	5.35	J-EMPC U (B)	5.66	U (B)	5.56	J-EMPC U (B)	5.2	U	5.12	J-EMPC U (B)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	5.3	U (B)	5.35	J-EMPC U (B)	5.66	J-EMPC U (B)	5.56	U (B)	0.0412	J-EMPC J (Z)	5.12	J-EMPC U (B)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	5.3	J-EMPC U (B)	5.35	J-EMPC U (B)	5.66	J-EMPC U (B)	5.56	U (B)	5.2	J-EMPC U (B)	5.12	J-EMPC U (B)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.3	U	5.35	J-EMPC U (B)	5.66	J-EMPC U (B)	5.56	U (B)	5.2	J-EMPC U (B)	5.12	J-EMPC U (B)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	5.3	U	5.35	J-EMPC U (B)	5.66	J-EMPC U (B)	5.56	U (B)	5.2	J-EMPC U (B)	5.12	J-EMPC U (B)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	5.3	U (B)	5.35	J-EMPC U (B)	5.66	J-EMPC U (B)	0.631	J (Z)	5.2	J-EMPC U (B)	5.12	U (B)
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	5.3	J-EMPC U (B)	5.35	J-EMPC U (B)	5.66	J-EMPC U (B)	0.161	J (Z)	5.2	J-EMPC U (B)	5.12	U (B)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	5.3	U	5.35	J-EMPC U (B)	5.66	U (B)	5.56	U (B)	5.2	U (B)	5.12	J-EMPC U (B)

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Trench samples collected at a discrete interval.

			Sample Name	FDG-SL-757-SA5C-SB-8.0-9.0		SL-699-SA5B-TR-8.0		FDG-SL-841-SA5B-SB-9.0-10.0		SL-839-SA5B-SB-9.0-10.0		SL-548-SA8-TR-10.0		SL-605-SA5C-TR-10.0	
			Sample Type	N		N		N		N		N		N	
			Sample Date	05/14/2014		05/28/2014		05/14/2014		01/14/2014		05/19/2014		05/29/2014	
			SDG	PH177		PH204		PH177		PH159		PH185		PH207	
			Start Depth	8		8		9		9		10		10	
			End Depth	9				10		10					
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	1.05	U	1.07	J-EMPC U (B)	0.131	J-EMPC J (Z)	0.064	J-EMPC J (Z)	1.14	U (B)	1.09	U
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	5.27	U	5.33	J-EMPC U (B)	0.124	J-EMPC J (Z)	0.385	J (Z)	5.69	J-EMPC U (B)	5.45	J-EMPC U (B)
1613B	3268-87-9	OCDD	ng/kg	10.1	J (Z)	10.7	J-EMPC U (B)	10.6	J-EMPC U (B)	34		11.4	J-EMPC U (B)	5.73	J (Z)
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	5.27	U (B)	5.33	J-EMPC U (B)	5.32	J-EMPC U (B)	4.26	J (Z)	5.69	J-EMPC U (B)	5.45	U (B)
1613B	39001-02-0	OCDF	ng/kg	10.5	U (B)	10.7	J-EMPC U (B)	10.6	J-EMPC U (B)	6.51	J (Z)	11.4	J-EMPC U (B)	10.9	U (B)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.042	J-EMPC J (Z)	5.33	J-EMPC U (B)	5.32	U	5.13	J-EMPC U (B)	5.69	U	5.45	U (B)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	5.27	U	5.33	J-EMPC U (B)	0.207	J (Z)	0.0711	J-EMPC J (Z)	0.0744	J-EMPC J (Z)	5.45	J-EMPC U (B)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	1.05	U	1.07	U	0.0488	J-EMPC J (Z)	1.03	U	0.0245	J-EMPC J (Z)	1.09	J-EMPC U (B)
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	5.27	U	5.33	J-EMPC U (B)	0.0495	J (Z)	5.13	J-EMPC U (B)	5.69	J-EMPC U (B)	5.45	J-EMPC U (B)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	5.27	U	5.33	J-EMPC U (B)	0.132	J-EMPC J (Z)	5.13	U (B)	5.69	J-EMPC U (B)	5.45	U (B)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	5.27	J-EMPC U (B)	5.33	J-EMPC U (B)	5.32	J-EMPC U (B)	5.13	J-EMPC U (B)	5.69	J-EMPC U (B)	0.125	J-EMPC J (Z)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	0.0175	J-EMPC J (Z)	5.33	J-EMPC U (B)	0.0727	J-EMPC J (Z)	5.13	J-EMPC U (B)	5.69	J-EMPC U (B)	5.45	U (B)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.0248	J-EMPC J (Z)	5.33	J-EMPC U (B)	0.0701	J (Z)	0.316	J-EMPC J (Z)	5.69	J-EMPC U (B)	5.45	J-EMPC U (B)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	0.0223	J-EMPC J (Z)	5.33	J-EMPC U (B)	0.0534	J-EMPC J (Z)	5.13	J-EMPC U (B)	5.69	U (B)	5.45	J-EMPC U (B)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	5.27	J-EMPC U (B)	5.33	J-EMPC U (B)	5.32	J-EMPC U (B)	1.24	J (Z)	5.69	U (B)	5.45	U (B)
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	0.0237	J (Z)	5.33	J-EMPC U (B)	0.1	J-EMPC J (Z)	5.13	J-EMPC U (B)	5.69	J-EMPC U (B)	5.45	U (B)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	5.27	U	5.33	J-EMPC U (B)	0.0302	J-EMPC J (Z)	5.13	U (B)	5.69	J-EMPC U (B)	5.45	J-EMPC U (B)

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Definitions are provided at the beginning of Appendix A. The letters in parenthesis can vary and there can be more than one letter.

Trench samples collected at a discrete interval.

			Sample Name	SL-651-SA5C-TR-10.0		SL-653-SA5C-TR-10.0		SL-611-SA8-TR-10.5		SL-529-SA5B-TR-11.0		SL-686-SA6-TR-11.0		FDG2-SL-874-SA5A-SB-12.0-13.0	
			Sample Type	N		N		N		N		N		N	
			Sample Date	05/30/2014		06/02/2014		05/20/2014		05/28/2014		05/21/2014		05/20/2014	
			SDG	PH209		PH212		PH189		PH204		PH192		PH188	
			Start Depth	10		10		10.5		11		11		12	
			End Depth											13	
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	1.01	U	1.01	U	0.0778	J-EMPC J (Z)	1.06	J-EMPC U (B)	1.03	U	1.03	U
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	0.396	J-EMPC J (Z)	0.0529	J-EMPC J (Z)	5.39	J-EMPC U (B)	0.422	J-EMPC J (Z)	0.053	J-EMPC J (Z)	5.13	U
1613B	3268-87-9	OCDD	ng/kg	15.5		10.1	U (B)	4.16	J (Z)	117		21.1		10.3	U (B)
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	1.12	J (Z)	5.07	J-EMPC U (B)	5.39	J-EMPC U (B)	9.56		1.08	J (Z)	5.13	J-EMPC U (B)
1613B	39001-02-0	OCDF	ng/kg	10.1	U (B)	10.1	J-EMPC U (B)	0.44	J (Z)	3.83	J (Z)	10.3	U (B)	10.3	J-EMPC U (B)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.07	J-EMPC U (B)	5.07	U	0.1	J (Z)	5.3	J-EMPC U (B)	0.0507	J-EMPC J (Z)	5.13	U
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	5.07	J-EMPC U (B)	5.07	U	5.39	J-EMPC U (B)	5.3	U	5.14	U	5.13	J-EMPC U (B)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	0.0779	J (Z)	1.01	U	0.232	J (Z)	0.0457	J-EMPC J (Z)	1.03	U	1.03	U
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	5.07	J-EMPC U (B)	5.07	J-EMPC U (B)	5.39	J-EMPC U (B)	5.3	J-EMPC U (B)	5.14	J-EMPC U (B)	5.13	U (B)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	5.07	J-EMPC U (B)	5.07	U	5.39	U (B)	5.3	U (B)	5.14	J-EMPC U (B)	5.13	J-EMPC U (B)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	5.07	J-EMPC U (B)	5.07	J-EMPC U (B)	1.95	J (Z)	5.3	U (B)	0.0356	J-EMPC J (Z)	5.13	U (B)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	5.07	J-EMPC U (B)	5.07	U	0.227	J-EMPC J (Z)	5.3	J-EMPC U (B)	0.0371	J-EMPC J (Z)	5.13	J-EMPC U (B)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.384	J-EMPC J (Z)	5.07	J-EMPC U (B)	5.39	J-EMPC U (B)	5.3	J-EMPC U (B)	0.0622	J-EMPC J (Z)	5.13	U
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	5.07	J-EMPC U (B)	5.07	U	5.39	U (B)	5.3	J-EMPC U (B)	0.0215	J-EMPC J (Z)	5.13	J-EMPC U (B)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	0.278	J-EMPC J (Z)	5.07	J-EMPC U (B)	5.39	U (B)	1.39	J (Z)	5.14	J-EMPC U (B)	5.13	J-EMPC U (B)
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	5.07	J-EMPC U (B)	5.07	J-EMPC U (B)	5.39	J-EMPC U (B)	5.3	J-EMPC U (B)	5.14	J-EMPC U (B)	5.13	J-EMPC U (B)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	0.33	J-EMPC J (Z)	5.07	J-EMPC U (B)	5.39	J-EMPC U (B)	5.3	U (B)	5.14	U (B)	5.13	U

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Trench samples collected at a discrete interval.

			Sample Name	SL-651-SA5C-TR-15.0		SL-653-SA5C-TR-15.0		SL-839-SA5B-SB-15.5-16.5	
			Sample Type	N		N		N	
			Sample Date	05/30/2014		06/02/2014		01/14/2014	
			SDG	PH209		PH212		PH159	
			Start Depth	15		15		15.5	
			End Depth					16.5	
Analytic Method	CAS Number	Chemical Name	Unit						
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	1.04	U	0.984	U	1.13	U
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	5.21	J-EMPC U (B)	0.289	J-EMPC J (Z)	5.65	U (B)
1613B	3268-87-9	OCDD	ng/kg	9.79	J (Z)	2.51	J (Z)	3.21	J (Z)
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	0.808	J (Z)	4.92	J-EMPC U (B)	0.733	J (Z)
1613B	39001-02-0	OCDF	ng/kg	10.4	J-EMPC U (B)	9.84	U (B)	11.3	U (B)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.21	J-EMPC U (B)	4.92	U	5.65	U
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	5.21	J-EMPC U (B)	4.92	U	5.65	U
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	1.04	U	0.984	U	1.13	U
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	5.21	U (B)	4.92	U	5.65	U (B)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	5.21	U (B)	4.92	U (B)	5.65	J-EMPC U (B)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	5.21	J-EMPC U (B)	4.92	J-EMPC U (B)	5.65	U (B)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	5.21	U (B)	0.0882	J-EMPC J (Z)	5.65	J-EMPC U (B)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.21	J-EMPC U (B)	4.92	J-EMPC U (B)	5.65	U
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	5.21	J-EMPC U (B)	0.107	J-EMPC J (Z)	5.65	J-EMPC U (B)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	5.21	J-EMPC U (B)	4.92	J-EMPC U (B)	5.65	U (B)
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	5.21	U (B)	4.92	U (B)	5.65	U (B)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	5.21	J-EMPC U (B)	0.681	J-EMPC J (Z)	5.65	U (B)

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Trench samples collected at a discrete interval.

				Sample Name	SL-646-SA5C-TR-0.5	SL-651-SA5C-TR-0.5	SL-653-SA5C-TR-0.5	SL-655-SA5C-TR-0.5	SL-646-SA5C-TR-5.0	SL-651-SA5C-TR-5.0	SL-653-SA5C-TR-5.0	SL-655-SA5C-TR-5.0	SL-951-SA5C-TR-5.0	SL-651-SA5C-TR-10.0
				Sample Type	N	N	N	N	N	N	N	N	FD	N
				Sample Date	06/04/2014	05/30/2014	06/02/2014	06/04/2014	06/04/2014	05/30/2014	06/02/2014	06/04/2014	05/30/2014	05/30/2014
				SDG	PH217	PH209	PH212	PH217	PH217	PH209	PH212	PH217	PH209	PH209
				Start Depth	0.5	0.5	0.5	0.5	5	5	5	5	5	10
Analytic Method	CAS Number	Chemical Name	Unit	End Depth										
8330A	118-96-7	2,4,6-Trinitrotoluene	µg/kg		310 U	310 U	310 U	320 UJ Q	310 U	310 UJ Q	310 U	310 U	310 U	320 U
8330A	121-14-2	2,4-Dinitrotoluene	µg/kg		310 U	310 U	310 U	320 U	310 U	310 U	310 U	310 U	310 U	320 U
8330A	121-82-4	RDX	µg/kg		310 U	310 U	310 U	320 U	310 U	310 U	310 U	310 U	310 U	320 U
8330A	19406-51-0	4-Amino-2,6-Dinitrotoluene	µg/kg		310 U	310 U	310 U	320 U	310 U	310 U	310 U	310 U	310 U	320 U
8330A	2691-41-0	HMX	µg/kg		410 U	420 U	410 U	430 UJ Q	420 U	420 U	410 U	410 U	420 U	420 U
8330A	35572-78-2	2-Amino-4,6-Dinitrotoluene	µg/kg		310 U	310 U	310 U	320 U	310 U	310 U	310 U	310 U	310 U	320 U
8330A	479-45-8	Tetryl	µg/kg		310 U	310 U	310 U	320 U	310 U	310 U	310 U	310 U	310 U	320 U
8330A	55-63-0	Nitroglycerin	µg/kg		2000 U	2100 U	2000 U	2100 U	2100 U	2100 U	2100 U	2100 U	2100 U	2100 U
8330A	59229-75-3	2,6-Diamino-4-nitrotoluene	µg/kg		410 U	420 U	410 U	430 U	420 U	420 U	410 U	410 U	420 U	420 U
8330A	606-20-2	2,6-Dinitrotoluene	µg/kg		310 U	310 U	310 U	320 U	310 U	310 U	310 U	310 U	310 U	320 U
8330A	6629-29-4	2,4-Diamino-6-nitrotoluene	µg/kg		410 U	420 U	410 U	430 U	420 U	420 U	410 U	410 U	420 U	420 U
8330A	78-11-5	PETN	µg/kg		2000 U	2100 U	2000 U	2100 U	2100 U	2100 U	2100 U	2100 U	2100 U	2100 U
8330A	88-72-2	2-Nitrotoluene	µg/kg		310 U	310 U	310 U	320 U	310 U	310 U	310 U	310 U	310 U	320 U
8330A	98-95-3	Nitrobenzene	µg/kg		310 U	310 U	310 U	320 U	310 U	310 U	310 U	310 U	310 U	320 U
8330A	99-08-1	3-Nitrotoluene	µg/kg		310 U	310 U	310 U	320 U	310 U	310 U	310 U	310 U	310 U	320 U
8330A	99-35-4	1,3,5-Trinitrobenzene	µg/kg		310 U	310 U	310 U	320 U	310 U	310 U	310 U	310 U	310 U	320 U
8330A	99-65-0	M-Dinitrobenzene	µg/kg		310 UJ L	310 U	310 U	320 UJ L	310 UJ L	310 U	310 U	310 UJ L	310 U	320 U
8330A	99-99-0	4-Nitrotoluene	µg/kg		310 U	310 U	310 U	320 UJ Q	310 U	310 U	310 U	310 U	310 U	320 U

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Trench samples collected at a discrete interval.

			Sample Name	SL-653-SA5C-TR-10.0	SL-651-SA5C-TR-15.0	SL-653-SA5C-TR-15.0
			Sample Type	N	N	N
			Sample Date	06/02/2014	05/30/2014	06/02/2014
			SDG	PH212	PH209	PH212
			Start Depth	10	15	15
			End Depth			
Analytic Method	CAS Number	Chemical Name	Unit			
8330A	118-96-7	2,4,6-Trinitrotoluene	µg/kg	310 U	320 U	310 U
8330A	121-14-2	2,4-Dinitrotoluene	µg/kg	310 U	320 U	310 U
8330A	121-82-4	RDX	µg/kg	310 U	320 U	310 U
8330A	19406-51-0	4-Amino-2,6-Dinitrotoluene	µg/kg	310 U	320 U	310 U
8330A	2691-41-0	HMX	µg/kg	420 U	420 U	410 U
8330A	35572-78-2	2-Amino-4,6-Dinitrotoluene	µg/kg	310 U	320 U	310 U
8330A	479-45-8	Tetryl	µg/kg	310 U	320 U	310 U
8330A	55-63-0	Nitroglycerin	µg/kg	3800 U	2100 U	2100 U
8330A	59229-75-3	2,6-Diamino-4-nitrotoluene	µg/kg	420 U	420 U	410 U
8330A	606-20-2	2,6-Dinitrotoluene	µg/kg	310 U	320 U	310 U
8330A	6629-29-4	2,4-Diamino-6-nitrotoluene	µg/kg	420 U	420 U	410 U
8330A	78-11-5	PETN	µg/kg	2100 U	2100 U	2100 U
8330A	88-72-2	2-Nitrotoluene	µg/kg	310 U	320 U	310 U
8330A	98-95-3	Nitrobenzene	µg/kg	310 U	320 U	310 U
8330A	99-08-1	3-Nitrotoluene	µg/kg	310 U	320 U	310 U
8330A	99-35-4	1,3,5-Trinitrobenzene	µg/kg	310 U	320 U	310 U
8330A	99-65-0	M-Dinitrobenzene	µg/kg	310 U	320 U	310 U
8330A	99-99-0	4-Nitrotoluene	µg/kg	310 U	320 U	310 U

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-584-SA5D-SB-0.0-0.5	FDG2-SL-585-SA5D-SB-0.0-0.5	FDG2-SL-586-SA5D-SB-0.0-0.5	FDG2-SL-885-SA5D-SB-0.0-0.5	FDG2-SL-586-SA5D-SB-2.0-3.0	FDG2-SL-584-SA5D-SB-4.0-5.0	FDG2-SL-585-SA5D-SB-4.0-5.0
			Sample Type	N	N	N	FD	N	N	N
			Sample Date	05/21/2014	05/21/2014	05/21/2014	05/21/2014	05/21/2014	05/21/2014	05/21/2014
			SDG	PH193	PH193	PH193	PH193	PH193	PH193	PH193
			Start Depth	0	0	0	0	2	4	4
			End Depth	0.5	0.5	0.5	0.5	3	5	5
Analytic Method	CAS Number	Chemical Name	Unit							
8315A	50-00-0	Formaldehyde	µg/kg	2100 U	21000 U	21000 U	21000 U	2100 U	2100 U	2300 U

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Z, etc. – Specific description qualifiers that are applied during validation. Definitions are provided at the beginning of Appendix A. The letters can vary and there can be more than one letter.

			Sample Name	SL-646-SA5C-TR-0.5	SL-651-SA5C-TR-0.5	SL-653-SA5C-TR-0.5	SL-655-SA5C-TR-0.5	SL-646-SA5C-TR-5.0	SL-651-SA5C-TR-5.0	SL-653-SA5C-TR-5.0	SL-655-SA5C-TR-5.0	SL-951-SA5C-TR-5.0	SL-651-SA5C-TR-10.0
			Sample Type	N	N	N	N	N	N	N	N	FD	N
			Sample Date	06/04/2014	05/30/2014	06/02/2014	06/04/2014	06/04/2014	05/30/2014	06/02/2014	06/04/2014	05/30/2014	05/30/2014
			SDG	PH217	PH209	PH212	PH217	PH217	PH209	PH212	PH217	PH209	PH209
			Start Depth	0.5	0.5	0.5	0.5	5	5	5	5	5	10
			End Depth										
Analytic Method	CAS Number	Chemical Name	Unit										
8015B	107-21-1	Ethylene Glycol	mg/kg	--	10 U	--	--	--	10 U	--	--	10 U	11 U
8015B	111-46-6	Diethylene Glycol	mg/kg	--	10 U	--	--	--	10 UJ Q	--	--	10 U	11 U
8015B	112-27-6	Triethylene Glycol	mg/kg	--	10 U	--	--	--	10 UJ Q	--	--	10 U	11 U
8015B	57-55-6	Propylene Glycol	mg/kg	--	10 U	--	--	--	10 U	--	--	10 U	11 U
8015C	107-21-1	Ethylene Glycol	mg/kg	10 UJ H	--	10 U	11 UJ H	10 UJ H	--	10 U	10 UJ H	--	--
8015C	111-46-6	Diethylene Glycol	mg/kg	10 UJ H	--	10 U	11 UJ H, Q	10 UJ H	--	10 U	10 UJ H	--	--
8015C	112-27-6	Triethylene Glycol	mg/kg	10 UJ H	--	10 U	11 R H, Q	10 UJ H	--	10 U	10 UJ H	--	--
8015C	57-55-6	Propylene Glycol	mg/kg	10 UJ H	--	10 U	11 UJ H	10 UJ H	--	10 U	10 UJ H	--	--

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Trench samples collected at a discrete interval.

			Sample Name	SL-653-SA5C-TR-10.0	SL-651-SA5C-TR-15.0	SL-653-SA5C-TR-15.0
			Sample Type	N	N	N
			Sample Date	06/02/2014	05/30/2014	06/02/2014
			SDG	PH212	PH209	PH212
			Start Depth	10	15	15
			End Depth			
Analytic Method	CAS Number	Chemical Name	Unit			
8015B	107-21-1	Ethylene Glycol	mg/kg	--	11 U	--
8015B	111-46-6	Diethylene Glycol	mg/kg	--	11 U	--
8015B	112-27-6	Triethylene Glycol	mg/kg	--	11 U	--
8015B	57-55-6	Propylene Glycol	mg/kg	--	11 U	--
8015C	107-21-1	Ethylene Glycol	mg/kg	10 U	--	10 U
8015C	111-46-6	Diethylene Glycol	mg/kg	10 U	--	10 U
8015C	112-27-6	Triethylene Glycol	mg/kg	10 U	--	10 U
8015C	57-55-6	Propylene Glycol	mg/kg	10 U	--	10 U

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-558-NBZ-SB-0.0-0.5	FDG2-SL-559-NBZ-SB-0.0-0.5	FDG2-SL-858-NBZ-SB-0.0-0.5	SL-646-SA5C-TR-0.5	SL-651-SA5C-TR-0.5	SL-653-SA5C-TR-0.5	SL-655-SA5C-TR-0.5	SL-646-SA5C-TR-5.0	SL-651-SA5C-TR-5.0
				Sample Type	N	N	FD	N	N	N	N	N	N
				Sample Date	06/09/2014	06/09/2014	06/09/2014	06/04/2014	05/30/2014	06/02/2014	06/04/2014	06/04/2014	05/30/2014
				SDG	PH224	PH224	PH224	PH217	PH209	PH212	PH217	PH217	PH209
				Start Depth	0	0	0	0.5	0.5	0.5	0.5	5	5
				End Depth	0.5	0.5	0.5						
Analytic Method	CAS Number	Chemical Name	Unit										
8151A	120-36-5	Dichlorprop	µg/kg		17 R Q	17 U	87 U	17 U	18 U	17 U	18 U	18 U	18 U
8151A	1918-00-9	Dicamba	µg/kg		12 U	12 U	61 U	12 U	12 U	12 U	13 U	13 U	13 U
8151A	75-99-0	2,2-Dichlor-Propionic Acid	µg/kg		92 U	91 U	460 U	92 U	94 U	92 U	96 U	94 U	94 R Q
8151A	88-85-7	Dinitrobutyl Phenol	µg/kg		24 R Q	24 U	120 U	25 R L	25 U	24 R L, C	26 R L	25 R L	25 U
8151A	93-65-2	MCPP	µg/kg		2500 U	2500 U	13000 UJ C	2600 U	2600 U	2600 U	2700 U	2600 U	2600 U
8151A	93-72-1	Silvex (2,4,5-TP)	µg/kg		1.7 R Q	1.7 U	8.7 U	1.7 U	1.8 U	1.7 U	1.8 U	1.8 U	1.8 U
8151A	93-76-5	2,4,5-T	µg/kg		1.7 R Q	1.7 U	8.7 U	1.7 U	1.8 U	1.7 U	1.8 U	1.8 U	1.8 U
8151A	94-74-6	MCPA	µg/kg		2500 U	2500 U	13000 U	2600 U	2600 U	2600 U	2700 U	2600 U	2600 U
8151A	94-75-7	2,4-D	µg/kg		37 R Q	37 U	180 U	37 U	37 U	37 U	38 U	38 U	38 U
8151A	94-82-6	2,4-DB	µg/kg		20 R FD, Q	16 J Z, *#	100 J FD, C	15 J Z	15 J Z	19	19	18 U	18 U

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Trench samples collected at a discrete interval.

				Sample Name	SL-653-SA5C-TR-5.0	SL-655-SA5C-TR-5.0	SL-951-SA5C-TR-5.0	SL-651-SA5C-TR-10.0	SL-653-SA5C-TR-10.0	SL-651-SA5C-TR-15.0	SL-653-SA5C-TR-15.0
				Sample Type	N	N	FD	N	N	N	N
				Sample Date	06/02/2014	06/04/2014	05/30/2014	05/30/2014	06/02/2014	05/30/2014	06/02/2014
				SDG	PH212	PH217	PH209	PH209	PH212	PH209	PH212
				Start Depth	5	5	5	10	10	15	15
				End Depth							
Analytic Method	CAS Number	Chemical Name	Unit								
8151A	120-36-5	Dichlorprop	µg/kg		17 U	18 U	18 U	18 U	18 U	18 U	17 U
8151A	1918-00-9	Dicamba	µg/kg		12 U	12 U	12 U	13 U	13 U	13 U	12 U
8151A	75-99-0	2,2-Dichlor-Propionic Acid	µg/kg		92 U	93 U	93 U	94 U	94 U	94 U	93 U
8151A	88-85-7	Dinitrobutyl Phenol	µg/kg		25 R L, C	25 R L	25 U	25 U	25 R L, C	25 U	25 R L, C
8151A	93-65-2	MCPP	µg/kg		2600 U	2600 U	2600 U	2600 U	2600 U	2600 U	2600 U
8151A	93-72-1	Silvex (2,4,5-TP)	µg/kg		1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.7 U
8151A	93-76-5	2,4,5-T	µg/kg		1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.7 U
8151A	94-74-6	MCPA	µg/kg		2600 U	2600 U	2600 U	2600 U	2600 U	2600 U	2600 U
8151A	94-75-7	2,4-D	µg/kg		37 U	37 U	37 U	38 U	38 U	38 U	37 U
8151A	94-82-6	2,4-DB	µg/kg		17 U	18 U	18 U	18 U	18 U	18 U	17 U

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Trench samples collected at a discrete interval.

			Sample Name	SL-646-SA5C-TR-0.5	SL-651-SA5C-TR-0.5	SL-653-SA5C-TR-0.5	SL-655-SA5C-TR-0.5	SL-646-SA5C-TR-5.0	SL-651-SA5C-TR-5.0	SL-653-SA5C-TR-5.0	SL-655-SA5C-TR-5.0	SL-951-SA5C-TR-5.0
			Sample Type	N	N	N	N	N	N	N	N	FD
			Sample Date	06/04/2014	05/30/2014	06/02/2014	06/04/2014	06/04/2014	05/30/2014	06/02/2014	06/04/2014	05/30/2014
			SDG	PH217	PH209	PH212	PH217	PH217	PH209	PH212	PH217	PH209
			Start Depth	0.5	0.5	0.5	0.5	5	5	5	5	5
			End Depth									
Analytic Method	CAS Number	Chemical Name	Unit									
7199	18540-29-9	Chromium (Hexavalent Compounds)	mg/kg	0.35 J Z	0.62	0.38 J Z	0.29 J Z	0.41 U	0.42 U	0.42 U	0.42 U	0.43 U

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Trench samples collected at a discrete interval.

			Sample Name	SL-651-SA5C-TR-10.0	SL-653-SA5C-TR-10.0	SL-651-SA5C-TR-15.0	SL-653-SA5C-TR-15.0
			Sample Type	N	N	N	N
			Sample Date	05/30/2014	06/02/2014	05/30/2014	06/02/2014
			SDG	PH209	PH212	PH209	PH212
			Start Depth	10	10	15	15
			End Depth				
Analytic Method	CAS Number	Chemical Name	Unit				
7199	18540-29-9	Chromium (Hexavalent Compounds)	mg/kg	0.41 J Z	0.43 U	0.44 U	0.35 J Z

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-558-NBZ-SB-0.0-0.5	FDG2-SL-559-NBZ-SB-0.0-0.5	FDG2-SL-560-NBZ-SB-0.0-0.5	FDG2-SL-561-NBZ-SB-0.0-0.5	FDG2-SL-562-NBZ-SB-0.0-0.5	FDG2-SL-563-NBZ-SB-0.0-0.5	FDG2-SL-564-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N
			Sample Date	06/09/2014	06/09/2014	06/11/2014	05/23/2014	06/12/2014	06/12/2014	06/10/2014
			SDG	PH224	PH224	PH229	PH197	PH231	PH231	PH227
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
7471B	7439-97-6	Mercury	mg/kg	0.0199	0.0164 U	0.0263	0.0169 U	0.0138 J Z	0.0152 J Z	0.0322

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-565-NBZ-SB-0.0-0.5	FDG2-SL-566-NBZ-SB-0.0-0.5	FDG2-SL-567-NBZ-SB-0.0-0.5	FDG2-SL-568-NBZ-SB-0.0-0.5	FDG2-SL-569-NBZ-SB-0.0-0.5	FDG2-SL-570-NBZ-SB-0.0-0.5	FDG2-SL-574-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N
			Sample Date	06/10/2014	06/10/2014	06/17/2014	06/17/2014	06/12/2014	06/12/2014	06/18/2014
			SDG	PH227	PH227	PH235	PH235	PH231	PH231	PH237
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
7471B	7439-97-6	Mercury	mg/kg	0.0359	0.375	0.0297	0.0371	0.0286	0.0263	0.0418

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-575-NBZ-SB-0.0-0.5	FDG2-SL-578-NBZ-SB-0.0-0.5	FDG2-SL-581-NBZ-SB-0.0-0.5	FDG2-SL-584-SA5D-SB-0.0-0.5	FDG2-SL-585-SA5D-SB-0.0-0.5	FDG2-SL-586-SA5D-SB-0.0-0.5	FDG2-SL-858-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	FD
			Sample Date	06/18/2014	05/22/2014	05/22/2014	05/21/2014	05/21/2014	05/21/2014	06/09/2014
			SDG	PH237	PH196	PH196	PH193	PH193	PH193	PH224
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
7471B	7439-97-6	Mercury	mg/kg	0.0145 J Z	0.0117 J Z	0.0122 J Z	0.121	0.0591	0.0173 U	0.0280

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-874-SA5A-SB-0.0-0.5	FDG2-SL-875-SA5A-SB-0.0-0.5	FDG2-SL-885-SA5D-SB-0.0-0.5	FDG-SL-1049-SA5C-SB-0.0-0.5	FDG-SL-511-SA5C-SB-0.0-0.5	FDG-SL-748-SA5C-SB-0.0-0.5	FDG-SL-749-SA5C-SB-0.0-0.5
			Sample Type	N	N	FD	FD	N	N	N
			Sample Date	05/20/2014	06/16/2014	05/21/2014	05/08/2014	05/08/2014	05/12/2014	05/08/2014
			SDG	PH188	PH234	PH193	PH173	PH173	PH175	PH173
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
7471B	7439-97-6	Mercury	mg/kg	0.0172 U	0.0234	0.0627	0.0170 UJ FD	0.0542	0.0201	0.0139 J FD, Z

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Trench samples collected at a discrete interval.

			Sample Name	FDG-SL-757-SA5C-SB-0.0-0.5	FDG-SL-798-SA5B-SB-0.0-0.5	FDG-SL-841-SA5B-SB-0.0-0.5	FDG-SL-842-SA5B-SB-0.0-0.5	SL-838-SA5B-SB-0.0-0.5	SL-839-SA5B-SB-0.0-0.5	SL-840-SA5B-SB-0.0-0.5	SL-843-SA5B-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N
			Sample Date	05/14/2014	05/07/2014	05/14/2014	05/14/2014	01/13/2014	01/14/2014	01/13/2014	01/14/2014
			SDG	PH177	PH172	PH177	PH177	PH158	PH159	PH158	PH159
			Start Depth	0	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit								
7471B	7439-97-6	Mercury	mg/kg	0.0292	0.0732	0.0171 U	0.0128 J Z	0.0172 U	0.0231	0.0227	0.0239

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Trench samples collected at a discrete interval.

			Sample Name	SL-503-SA5C-TR-0.5	SL-529-SA5B-TR-0.5	SL-534-SA8-TR-0.5	SL-548-SA8-TR-0.5	SL-569-SA6-TR-0.5	SL-570-SA6-TR-0.5	SL-587-SA5A-TR-0.5	SL-605-SA5C-TR-0.5	SL-611-SA8-TR-0.5	SL-636-SA5A-TR-0.5
			Sample Type	N	N	N	N	N	N	N	N	N	N
			Sample Date	05/29/2014	05/28/2014	05/19/2014	05/19/2014	05/20/2014	05/20/2014	05/22/2014	05/29/2014	05/20/2014	05/23/2014
			SDG	PH207	PH204	PH185	PH185	PH189	PH189	PH195	PH207	PH189	PH199
			Start Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
			End Depth										
Analytic Method	CAS Number	Chemical Name	Unit										
7471B	7439-97-6	Mercury	mg/kg	0.0183	0.0264	0.0171 U	0.0139 J Z	0.0170 U	0.0155 J Z	0.0161 J Z	0.0183	0.0197	0.0143 J Z

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Trench samples collected at a discrete interval.

			Sample Name	SL-646-SA5C-TR-0.5	SL-651-SA5C-TR-0.5	SL-653-SA5C-TR-0.5	SL-655-SA5C-TR-0.5	SL-686-SA6-TR-0.5	SL-693-SA5B-TR-0.5	SL-699-SA5B-TR-0.5	SL-707-SA5B-TR-0.5	SL-730-SA5A-TR-0.5	FDG2-SL-1175-SA5A-SB-2.0-3.0
			Sample Type	N	N	N	N	N	N	N	N	N	FD
			Sample Date	06/04/2014	05/30/2014	06/02/2014	06/04/2014	05/21/2014	05/27/2014	05/28/2014	05/27/2014	05/22/2014	06/16/2014
			SDG	PH217	PH209	PH212	PH217	PH192	PH201	PH204	PH201	PH195	PH234
			Start Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2
			End Depth										3
Analytic Method	CAS Number	Chemical Name	Unit										
7471B	7439-97-6	Mercury	mg/kg	0.0161 U	0.0624	0.0160 U	0.0165 U	0.0459	0.0163 U	0.0153 J Z	0.0163 U	0.0409	0.0197

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J – Result is an estimated value
R – Result is rejected
Z, etc. – Specific description qualifiers that are applied during validation. Definitions are provided at the beginning of Appendix A. The letters can vary and there can be more than one letter.

Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-586-SA5D-SB-2.0-3.0	FDG2-SL-875-SA5A-SB-2.0-3.0	FDG-SL-511-SA5C-SB-2.0-3.0	SL-529-SA5B-TR-2.0	SL-570-SA6-TR-2.0	SL-569-SA6-TR-2.5	SL-529-SA5B-TR-3.0	SL-693-SA5B-TR-3.0	SL-699-SA5B-TR-3.0
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	05/21/2014	06/16/2014	05/08/2014	05/28/2014	05/20/2014	05/20/2014	05/28/2014	05/28/2014	05/28/2014
			SDG	PH193	PH234	PH173	PH204	PH189	PH189	PH204	PH204	PH204
			Start Depth	2	2	2	2	2	2.5	3	3	3
			End Depth	3	3	3						
Analytic Method	CAS Number	Chemical Name	Unit									
7471B	7439-97-6	Mercury	mg/kg	0.0164 U	0.0206	0.0170	0.0202	0.0172 U	0.0159 J Z	0.0301	0.0122 J Z	0.0168 U

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J – Result is an estimated value
R – Result is rejected
Z, etc. – Specific description qualifiers that are applied during validation. Definitions are provided at the beginning of Appendix A. The letters can vary and there can be more than one letter.

Trench samples collected at a discrete interval.

			Sample Name	SL-707-SA5B-TR-3.0	SL-636-SA5A-TR-3.5	SL-693-SA5B-TR-3.5	FDG2-SL-1174-SA5A-SB-4.0-5.0	FDG2-SL-581-NBZ-SB-4.0-5.0	FDG2-SL-584-SA5D-SB-4.0-5.0	FDG2-SL-585-SA5D-SB-4.0-5.0	FDG2-SL-874-SA5A-SB-4.0-5.0
			Sample Type	N	N	N	N	N	N	N	N
			Sample Date	05/27/2014	05/23/2014	05/27/2014	05/20/2014	05/22/2014	05/21/2014	05/21/2014	05/20/2014
			SDG	PH201	PH199	PH201	PH188	PH196	PH193	PH193	PH188
			Start Depth	3	3.5	3.5	4	4	4	4	4
			End Depth				5	5	5	5	5
Analytic Method	CAS Number	Chemical Name	Unit								
7471B	7439-97-6	Mercury	mg/kg	0.0171 U	0.0173 U	0.0163 U	0.0124 J Z	0.0178 U	0.0165 U	0.0123 J Z	0.0118 J Z

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J – Result is an estimated value
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Trench samples collected at a discrete interval.

Appendix A9
Mercury – Validated Data
Phase 3 – Go-Backs, Trenches and Soil Vapor Locations

			Sample Name	FDG2-SL-878-SA5A-SB-4.0-5.0	FDG-SL-748-SA5C-SB-4.0-5.0	FDG-SL-757-SA5C-SB-4.0-5.0	FDG-SL-841-SA5B-SB-4.0-5.0	FDG-SL-842-SA5B-SB-4.0-5.0	SL-838-SA5B-SB-4.0-5.0	SL-839-SA5B-SB-4.0-5.0
			Sample Type	N	N	N	N	N	N	N
			Sample Date	06/11/2014	05/12/2014	05/14/2014	05/14/2014	05/14/2014	01/13/2014	01/14/2014
			SDG	PH229	PH175	PH177	PH177	PH177	PH158	PH159
			Start Depth	4	4	4	4	4	4	4
			End Depth	5	5	5	5	5	5	5
Analytic Method	CAS Number	Chemical Name	Unit							
7471B	7439-97-6	Mercury	mg/kg	0.0189	0.0169 J Z	0.0575	0.0203	0.0174	0.0181 U	0.0182 U

U – Compound not detected above reporting limit
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Trench samples collected at a discrete interval.

			Sample Name	SL-840-SA5B-SB-4.0-5.0	SL-843-SA5B-SB-4.0-5.0	SL-503-SA5C-TR-5.0	SL-534-SA8-TR-5.0	SL-548-SA8-TR-5.0	SL-605-SA5C-TR-5.0	SL-611-SA8-TR-5.0	SL-646-SA5C-TR-5.0	SL-651-SA5C-TR-5.0	SL-653-SA5C-TR-5.0
			Sample Type	N	N	N	N	N	N	N	N	N	N
			Sample Date	01/13/2014	01/14/2014	05/29/2014	05/19/2014	05/19/2014	05/29/2014	05/20/2014	06/04/2014	05/30/2014	06/02/2014
			SDG	PH158	PH159	PH207	PH185	PH185	PH207	PH189	PH217	PH209	PH212
			Start Depth	4	4	5	5	5	5	5	5	5	5
			End Depth	5	5								
Analytic Method	CAS Number	Chemical Name	Unit										
7471B	7439-97-6	Mercury	mg/kg	0.0182 U	0.0129 J Z	0.0186	0.0167 U	0.0127 J Z	0.0210	0.0120 J Z	0.0103 J Z	0.0165 U	0.0163 U

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Trench samples collected at a discrete interval.

			Sample Name	SL-655-SA5C-TR-5.0	SL-686-SA6-TR-5.0	SL-693-SA5B-TR-5.0	SL-848-SA8-TR-5.0	SL-951-SA5C-TR-5.0	SL-587-SA5A-TR-5.5	SL-887-SA5A-TR-5.5	SL-570-SA6-TR-6.0	SL-730-SA5A-TR-6.0	FDG2-SL-631-SA8-SB-7.0-8.0
			Sample Type	N	N	N	FD	FD	N	N	N	N	N
			Sample Date	06/04/2014	05/21/2014	05/27/2014	05/19/2014	05/30/2014	05/22/2014	05/22/2014	05/20/2014	05/22/2014	06/05/2014
			SDG	PH217	PH192	PH201	PH185	PH209	PH195	PH195	PH189	PH195	PH220
			Start Depth	5	5	5	5	5	5.5	5.5	6	6	7
			End Depth										8
Analytic Method	CAS Number	Chemical Name	Unit										
7471B	7439-97-6	Mercury	mg/kg	0.0171 U	0.0174 U	0.0165 U	0.0125 J Z	0.0166 U	0.0123 J FD, Z	0.0230 J FD	0.0189	0.313	0.0161 J Z

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Trench samples collected at a discrete interval.

			Sample Name	SL-840-SA5B-SB-7.0-8.0	SL-843-SA5B-SB-7.0-8.0	SL-503-SA5C-TR-7.5	SL-636-SA5A-TR-7.5	FDG-SL-757-SA5C-SB-8.0-9.0	SL-699-SA5B-TR-8.0	FDG2-SL-581-NBZ-SB-9.0-10.0	FDG2-SL-623-SA8-SB-9.0-10.0
			Sample Type	N	N	N	N	N	N	N	N
			Sample Date	01/13/2014	01/14/2014	05/29/2014	05/23/2014	05/14/2014	05/28/2014	05/22/2014	05/21/2014
			SDG	PH158	PH159	PH207	PH199	PH177	PH204	PH196	PH193
			Start Depth	7	7	7.5	7.5	8	8	9	9
			End Depth	8	8			9		10	10
Analytic Method	CAS Number	Chemical Name	Unit								
7471B	7439-97-6	Mercury	mg/kg	0.0190 U	0.0180	0.0109 J Z	0.0174 U	0.0173 U	0.0171 U	0.0182 U	0.0164 U

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-628-SA8-SB-9.0-10.0	FDG-SL-841-SA5B-SB-9.0-10.0	SL-839-SA5B-SB-9.0-10.0	SL-548-SA8-TR-10.0	SL-605-SA5C-TR-10.0	SL-651-SA5C-TR-10.0	SL-653-SA5C-TR-10.0	SL-611-SA8-TR-10.5	SL-529-SA5B-TR-11.0
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	05/22/2014	05/14/2014	01/14/2014	05/19/2014	05/29/2014	05/30/2014	06/02/2014	05/20/2014	05/28/2014
			SDG	PH196	PH177	PH159	PH185	PH207	PH209	PH212	PH189	PH204
			Start Depth	9	9	9	10	10	10	10	10.5	11
			End Depth	10	10	10						
Analytic Method	CAS Number	Chemical Name	Unit									
7471B	7439-97-6	Mercury	mg/kg	0.0176 U	0.0175 U	0.0195	0.0163 J Z	0.0643	0.0124 J Z	0.0169 U	0.0124 J Z	0.0224

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Trench samples collected at a discrete interval.

			Sample Name	SL-686-SA6-TR-11.0	FDG2-SL-874-SA5A-SB-12.0-13.0	FDG2-SL-581-NBZ-SB-13.0-14.0	FDG2-SL-623-SA8-SB-14.0-15.0	FDG2-SL-628-SA8-SB-14.0-15.0	FDG-SL-756-SA5C-SB-15.0-16.0	FDG-SL-836-SA5B-SB-15.0-16.0
			Sample Type	N	N	N	N	N	N	N
			Sample Date	05/21/2014	05/20/2014	05/22/2014	05/21/2014	05/22/2014	05/13/2014	05/13/2014
			SDG	PH192	PH188	PH196	PH193	PH196	PH176	PH176
			Start Depth	11	12	13	14	14	15	15
			End Depth		13	14	15	15	16	16
Analytic Method	CAS Number	Chemical Name	Unit							
7471B	7439-97-6	Mercury	mg/kg	0.0166 U	0.0114 J Z	0.0173 J Z	0.0169 U	0.0170 U	0.0136 J Z	0.0128 J Z

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Trench samples collected at a discrete interval.

			Sample Name	SL-651-SA5C-TR-15.0	SL-653-SA5C-TR-15.0	SL-839-SA5B-SB-15.5-16.5	FDG2-SL-623-SA8-SB-19.0-20.0	FDG-SL-836-SA5B-SB-19.0-20.0
			Sample Type	N	N	N	N	N
			Sample Date	05/30/2014	06/02/2014	01/14/2014	05/21/2014	05/13/2014
			SDG	PH209	PH212	PH159	PH193	PH176
			Start Depth	15	15	15.5	19	19
			End Depth			16.5	20	20
Analytic Method	CAS Number	Chemical Name	Unit					
7471B	7439-97-6	Mercury	mg/kg	0.0160 J Z	0.0168 U	0.0193 U	0.0166 U	0.0122 J Z

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-558-NBZ-SB-0.0-0.5	FDG2-SL-559-NBZ-SB-0.0-0.5	FDG2-SL-560-NBZ-SB-0.0-0.5	FDG2-SL-561-NBZ-SB-0.0-0.5	FDG2-SL-562-NBZ-SB-0.0-0.5	FDG2-SL-563-NBZ-SB-0.0-0.5	FDG2-SL-564-NBZ-SB-0.0-0.5
				Sample Type	N	N	N	N	N	N	N
				Sample Date	06/09/2014	06/09/2014	06/11/2014	05/23/2014	06/12/2014	06/12/2014	06/10/2014
				SDG	PH224	PH224	PH229	PH197	PH231	PH231	PH227
				Start Depth	0	0	0	0	0	0	0
				End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit								
6010C	7429-90-5	Aluminum	mg/kg		15700 J E	11500 J E	13300	9960	6530	6760	14900
6010C	7439-89-6	Iron	mg/kg		21600	22800	20700	17600	30300	12000	21300
6010C	7439-92-1	Lead	mg/kg		9.97	5.83	9.06 J Q, E	6.10	9.95 J Q, E	4.97 J Q, E	11.2
6010C	7439-93-2	Lithium	mg/kg		33.2	29.3	28.3	23.6	15.4	15.4	22.4
6010C	7439-95-4	Magnesium	mg/kg		4570 J E	5750 J E	5010	4340	2670	2920	5450
6010C	7439-96-5	Manganese	mg/kg		387	312	262	224	146	141	353
6010C	7439-98-7	Molybdenum	mg/kg		0.661 J Z	0.287 J Z	1.96 U	2.00 U	10.7	0.184 J Z	0.298 J Z
6010C	7440-02-0	Nickel	mg/kg		14.4 J E	10.4 J E	12.3	8.50	5.17	4.86	12.9
6010C	7440-09-7	Potassium	mg/kg		4310 J E	2660 J E	3700	3000	1740	1970	3170
6010C	7440-23-5	Sodium	mg/kg		80.3 J Z	91.5 J Z	132	111	119 J Z	121	73.1 J Z
6010C	7440-31-5	Tin	mg/kg		10.2 U B	10.1 U B	9.79 U B	10.0 U B	12.3 U B	9.87 U B	10.1 U B
6010C	7440-32-6	Titanium	mg/kg		1030	1090	943	794	591	585	1120
6010C	7440-36-0	Antimony	mg/kg		4.08 UJ Q	4.06 UJ Q	3.92 UJ Q	4.01 U	4.91 UJ Q	3.95 UJ Q	4.03 U
6010C	7440-38-2	Arsenic	mg/kg		3.91 J Z	3.52 J Z	7.53	3.11 J Z	28.9	3.74 J Z	6.44
6010C	7440-39-3	Barium	mg/kg		106 J E	75.1 J E	60.2	59.4	39.2	44.8	86.3
6010C	7440-41-7	Beryllium	mg/kg		0.672 J Z	0.504 J Z	0.567 J Z	0.373 J Z	0.453 J Z	0.281 J Z	0.580 J Z
6010C	7440-42-8	Boron	mg/kg		8.75 J Z	6.92 J Z	9.79 U B	6.03 J Z	12.3 U B	9.87 U B	10.1 U B
6010C	7440-43-9	Cadmium	mg/kg		0.356 J Z	0.220 J Z	0.979 U	0.445 J Z	1.23 U	0.987 U	1.01 U
6010C	7440-47-3	Chromium	mg/kg		19.2	17.1	19.5	18.2	8.11	13.2	21.7
6010C	7440-48-4	Cobalt	mg/kg		5.60	5.16	5.45	4.10	2.44	2.74	5.13
6010C	7440-50-8	Copper	mg/kg		9.55	8.15	11.4	7.78	10.1	5.23	9.70
6010C	7440-62-2	Vanadium	mg/kg		36.3	35.7	34.3	25.3	33.9	20.1	42.2
6010C	7440-66-6	Zinc	mg/kg		62.2	56.1	63.4	59.0	55.1	32.4	54.1
6010C	7440-67-7	Zirconium	mg/kg		5.10 U F	5.07 U F	4.89 U F	5.01 U F	6.13 U F	4.94 U F	5.04 U F
6010C	7440-70-2	Calcium	mg/kg		3950 J E	3110 J E	4480	3420	3970	3030	3610
6010C	7723-14-0	Phosphorus	mg/kg		421	470	445	396	353	255	382
6020A	7440-22-4	Silver	mg/kg		0.0524 J Z	0.0329 J Z	0.0581 J Q, Z	0.0287 J Z	0.245 U	0.197 U	0.0534 J Z
6020A	7440-24-6	Strontium	mg/kg		27.2 J E, Q	14.3 J E, Q	29.0 J Q, E	20.3	20.9 J Q, E	21.4 J Q, E	22.9
6020A	7440-28-0	Thallium	mg/kg		0.277 J Q	0.248 J Q	0.282	0.198 J Z	0.151 J Z	0.167 J Z	0.225
6020A	7782-49-2	Selenium	mg/kg		0.351 J Z	0.344 J Z	0.368 J Z	0.117 J Z	1.04	0.171 J Z	0.459

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-565-NBZ-SB-0.0-0.5	FDG2-SL-566-NBZ-SB-0.0-0.5	FDG2-SL-567-NBZ-SB-0.0-0.5	FDG2-SL-568-NBZ-SB-0.0-0.5	FDG2-SL-569-NBZ-SB-0.0-0.5	FDG2-SL-570-NBZ-SB-0.0-0.5	FDG2-SL-574-NBZ-SB-0.0-0.5
				Sample Type	N	N	N	N	N	N	N
				Sample Date	06/10/2014	06/10/2014	06/17/2014	06/17/2014	06/12/2014	06/12/2014	06/18/2014
				SDG	PH227	PH227	PH235	PH235	PH231	PH231	PH237
				Start Depth	0	0	0	0	0	0	0
				End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit								
6010C	7429-90-5	Aluminum	mg/kg	13300	10500	13200	12800	11700	19800	21900
6010C	7439-89-6	Iron	mg/kg	21800	16600	19500	21300	18400	21100	28600
6010C	7439-92-1	Lead	mg/kg	11.1	13.8	13.9	23.6	13.2 J Q, E	8.27 J Q, E	20.5
6010C	7439-93-2	Lithium	mg/kg	25.9	19.2	22.9	25.7	24.4	23.7	30.2
6010C	7439-95-4	Magnesium	mg/kg	6380	4040	4250	5170	4570	3930	6010
6010C	7439-96-5	Manganese	mg/kg	321	230	346	345	269	291	428
6010C	7439-98-7	Molybdenum	mg/kg	0.345 J Z	0.382 J Z	2.03 U F	2.11 U F	0.180 J Z	0.387 J Z	2.05 U F
6010C	7440-02-0	Nickel	mg/kg	12.6	8.64	8.77	11.5	9.84	10.8	14.0
6010C	7440-09-7	Potassium	mg/kg	2870	2840	3630 J Q	4070 J Q	2990	3410	5720 J Q
6010C	7440-23-5	Sodium	mg/kg	77.3 J Z	60.0 J Z	66.8 J Z	79.9 J Z	51.8 J Z	93.0 J Z	86.7 J Z
6010C	7440-31-5	Tin	mg/kg	9.80 U B	9.76 U B	10.2 U B	10.6 U B	9.80 U B	9.89 U B	10.3 U B
6010C	7440-32-6	Titanium	mg/kg	1200	855	909	1010	947	1010	1090
6010C	7440-36-0	Antimony	mg/kg	3.92 U	3.90 U	4.07 UJ Q	4.23 UJ Q	3.92 UJ Q	3.96 UJ Q	4.10 UJ Q
6010C	7440-38-2	Arsenic	mg/kg	6.75	6.31	6.95	13.0	11.6	9.17	3.96 J Z
6010C	7440-39-3	Barium	mg/kg	65.9	61.1	91.9	99.0	68.7	94.0	132
6010C	7440-41-7	Beryllium	mg/kg	0.519 J Z	0.436 J Z	0.548 J Z	0.535 J Z	0.505 J Z	0.795 J Z	0.886 J Z
6010C	7440-42-8	Boron	mg/kg	9.80 U B	9.76 U B	3.75 J Z	10.6 U F	9.80 U B	9.89 U B	10.3 U
6010C	7440-43-9	Cadmium	mg/kg	0.980 U	0.976 U	1.02 U	1.06 U	0.980 U	0.989 U	1.03 U
6010C	7440-47-3	Chromium	mg/kg	21.6	14.2	14.3	16.9	15.5	16.8	21.6
6010C	7440-48-4	Cobalt	mg/kg	5.33	3.66	6.34 J E	5.59 J E	4.33	4.76	7.56 J E
6010C	7440-50-8	Copper	mg/kg	9.70	7.59	10.9	12.4	7.50	8.37	15.8
6010C	7440-62-2	Vanadium	mg/kg	43.8	31.3	30.1	30.8	30.3	35.6	41.9
6010C	7440-66-6	Zinc	mg/kg	55.2	50.4	57.9	75.3	52.6	48.3	86.0
6010C	7440-67-7	Zirconium	mg/kg	4.90 U F	4.88 U F	5.08 U F	5.29 U F	4.90 U F	4.95 U F	5.13 U F
6010C	7440-70-2	Calcium	mg/kg	3510	3220	5720 J E	5850 J E	2670	2170	4700 J E
6010C	7723-14-0	Phosphorus	mg/kg	409	322	409 J E	489 J E	354	243	509 J E
6020A	7440-22-4	Silver	mg/kg	0.0588 J Z	0.571	0.0264 J Q, E, Z	0.0410 J Q, E, Z	0.0306 J Q, Z	0.0382 J Q, Z	0.0517 J Q, E, Z
6020A	7440-24-6	Strontium	mg/kg	16.0	19.4	34.9 J E	29.6 J E	16.3 J Q, E	26.2 J Q, E	34.1 J E
6020A	7440-28-0	Thallium	mg/kg	0.266	0.243	0.284 J Q, E	0.273 J Q, E	0.258	0.347	0.355 J Q, E
6020A	7782-49-2	Selenium	mg/kg	0.426	0.324 J Z	0.200 J Q, Z	0.151 J Q, Z	0.337 J Z	0.451	0.240 J Q, Z

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-575-NBZ-SB-0.0-0.5	FDG2-SL-578-NBZ-SB-0.0-0.5	FDG2-SL-581-NBZ-SB-0.0-0.5	FDG2-SL-584-SA5D-SB-0.0-0.5	FDG2-SL-585-SA5D-SB-0.0-0.5	FDG2-SL-586-SA5D-SB-0.0-0.5	FDG2-SL-858-NBZ-SB-0.0-0.5
				Sample Type	N	N	N	N	N	N	FD
				Sample Date	06/18/2014	05/22/2014	05/22/2014	05/21/2014	05/21/2014	05/21/2014	06/09/2014
				SDG	PH237	PH196	PH196	PH193	PH193	PH193	PH224
				Start Depth	0	0	0	0	0	0	0
				End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit								
6010C	7429-90-5	Aluminum	mg/kg		10900	26800	26700	16600 J E	16300 J E	21200 J E	15600 J E
6010C	7439-89-6	Iron	mg/kg		17800	36900	36600	22900 J E	20100 J E	33100 J E	22500
6010C	7439-92-1	Lead	mg/kg		11.8	12.2	12.0	17.2 J E	12.0 J E	9.26 J E	12.5
6010C	7439-93-2	Lithium	mg/kg		24.8	41.4	45.0	28.6	22.1	30.5	34.0
6010C	7439-95-4	Magnesium	mg/kg		3810	7340	8620	5050	4300	5690	4760 J E
6010C	7439-96-5	Manganese	mg/kg		266	239	423	323 J E	218 J E	407 J E	403
6010C	7439-98-7	Molybdenum	mg/kg		2.01 U	0.544 J Z	0.318 J Z	0.348 J Z	0.424 J Z	0.800 J Z	0.453 J Z
6010C	7440-02-0	Nickel	mg/kg		7.30	13.8	19.1	17.4 J A	14.0 J A	21.6 J A	14.8 J E
6010C	7440-09-7	Potassium	mg/kg		3390 J Q	2460	4900	3650 J Q	3600 J Q	4530 J Q	4500 J E
6010C	7440-23-5	Sodium	mg/kg		58.4 J Z	156	119	101 J Z	91.2 J Z	111	81.5 J Z
6010C	7440-31-5	Tin	mg/kg		10.1 U B	10.5 U B	10.3 U B	10.5 U B	10.6 U B	10.3 U B	9.91 U B
6010C	7440-32-6	Titanium	mg/kg		843	1230	1680	1030	1030	1220	1060
6010C	7440-36-0	Antimony	mg/kg		4.03 UJ Q	4.21 U	4.10 U	4.19 UJ Q, E	4.23 UJ Q, E	4.14 UJ Q, E	3.96 UJ Q
6010C	7440-38-2	Arsenic	mg/kg		4.03 U B	9.59	11.7	7.07	6.33	9.90	4.19
6010C	7440-39-3	Barium	mg/kg		73.3	112	114	97.4 J Q	93.9 J Q	124 J Q	111 J E
6010C	7440-41-7	Beryllium	mg/kg		0.411 J Z	1.38	1.33	0.638 J Z	0.593 J Z	0.909 J Z	0.674 J Z
6010C	7440-42-8	Boron	mg/kg		10.1 U F	10.5 U B	10.6	10.5 U B	10.6 U B	10.3 U B	9.83 J Z
6010C	7440-43-9	Cadmium	mg/kg		1.01 U	0.100 J Z	0.166 J Z	1.26	0.590 J Z	0.701 J Z	0.382 J Z
6010C	7440-47-3	Chromium	mg/kg		12.2	29.6	33.3	25.4 J Q	23.5 J Q	30.1 J Q	19.5
6010C	7440-48-4	Cobalt	mg/kg		4.12 J E	6.92	10.6	6.32	5.16	9.40	5.77
6010C	7440-50-8	Copper	mg/kg		8.21	18.9	21.9	37.5	16.1	18.6	10.4
6010C	7440-62-2	Vanadium	mg/kg		24.3	59.4	67.6	37.1 J Q	37.1 J Q	50.0 J Q	37.1
6010C	7440-66-6	Zinc	mg/kg		53.1	88.5	99.0	148 J Q, E, A	88.2 J Q, E, A	81.3 J Q, E, A	70.8
6010C	7440-67-7	Zirconium	mg/kg		5.04 U F	5.27 U F	7.09	5.24 U F	5.29 U F	6.83	4.95 U F
6010C	7440-70-2	Calcium	mg/kg		3070 J E	3590	5300	7920	3210	3220	4790 J E
6010C	7723-14-0	Phosphorus	mg/kg		374 J E	184	594	483 J Q, A	350 J Q, A	576 J Q, A	480
6020A	7440-22-4	Silver	mg/kg		0.0288 J Q, E, Z	0.211 U	0.128 J Z	3.33	0.372 J FD	0.207 U	0.0691 J Z
6020A	7440-24-6	Strontium	mg/kg		15.2 J E	21.3	23.8	42.4 J Q	24.4 J Q	27.6 J Q	32.9 J E, Q
6020A	7440-28-0	Thallium	mg/kg		0.211 J Q, E	0.335	0.425	0.309	0.300	0.374	0.297 J Q
6020A	7782-49-2	Selenium	mg/kg		0.175 J Q, Z	0.660	0.606	0.239 J Z	0.183 J Z	0.243 J Z	0.361 J Z

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-874-SA5A-SB-0.0-0.5	FDG2-SL-875-SA5A-SB-0.0-0.5	FDG2-SL-885-SA5D-SB-0.0-0.5	FDG-SL-1049-SA5C-SB-0.0-0.5	FDG-SL-511-SA5C-SB-0.0-0.5	FDG-SL-748-SA5C-SB-0.0-0.5	FDG-SL-749-SA5C-SB-0.0-0.5
				Sample Type	N	N	FD	FD	N	N	N
				Sample Date	05/20/2014	06/16/2014	05/21/2014	05/08/2014	05/08/2014	05/12/2014	05/08/2014
				SDG	PH188	PH234	PH193	PH173	PH173	PH175	PH173
				Start Depth	0	0	0	0	0	0	0
				End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit								
6010C	7429-90-5	Aluminum	mg/kg		12200	12600	17900 J E	13800	17200	25000	13700
6010C	7439-89-6	Iron	mg/kg		18700	15500	23000 J E	18100	23700	27600	19700
6010C	7439-92-1	Lead	mg/kg		4.19	13.8 J Q, E	15.0 J E	7.07	18.4	18.0	8.82
6010C	7439-93-2	Lithium	mg/kg		27.0	14.2	25.1	20.9	22.2	22.5	22.7
6010C	7439-95-4	Magnesium	mg/kg		4760	3230	5130	3830	4160	6100	4070
6010C	7439-96-5	Manganese	mg/kg		274	241	290 J E	256 J E	387 J E	431	304 J E
6010C	7439-98-7	Molybdenum	mg/kg		2.08 U	1.96 U F	0.331 J Z	2.07 UJ FD	0.399 J Z	2.14 U	0.442 J FD, Z
6010C	7440-02-0	Nickel	mg/kg		9.51	11.3	17.3 J A	12.4	16.1	16.5	13.4
6010C	7440-09-7	Potassium	mg/kg		2900	2730	4090 J Q	2160 J Q	2630 J Q	4910	2330 J Q
6010C	7440-23-5	Sodium	mg/kg		107	65.1 J Z	96.9 J Z	76.4 J Z	95.9 J Z	159	88.5 J Z
6010C	7440-31-5	Tin	mg/kg		10.4 U B	9.79 U B	10.3 U B	10.4 U B	10.6 U B	10.7 U B	10.1 U B
6010C	7440-32-6	Titanium	mg/kg		1070	763	1140	925	907	1210	972
6010C	7440-36-0	Antimony	mg/kg		4.15 UJ Q	3.92 UJ Q	4.11 UJ Q, E	4.15 UJ Q	4.23 UJ Q	4.28 U	4.05 UJ Q
6010C	7440-38-2	Arsenic	mg/kg		3.62 J Z	4.89	8.49	4.95	7.07	5.96	5.70
6010C	7440-39-3	Barium	mg/kg		81.4 J E, Q	82.7	112 J Q	70.2	108	122	74.6
6010C	7440-41-7	Beryllium	mg/kg		0.430 J Z	0.455 J Z	0.652 J Z	0.562 J Z	0.814 J Z	0.888 J Z	0.572 J Z
6010C	7440-42-8	Boron	mg/kg		4.30 J Z	9.79 U B	10.3 U B	10.4 U B, F	10.6 U B, F	6.28 J Z	10.1 U B, F
6010C	7440-43-9	Cadmium	mg/kg		0.435 J Z	0.979 U	0.969 J Z	1.04 U	0.403 J Z	0.305 J Z	1.01 U
6010C	7440-47-3	Chromium	mg/kg		17.6 J E	18.4	26.8 J Q	17.1 J Q	21.7 J Q	30.9	16.7 J Q
6010C	7440-48-4	Cobalt	mg/kg		4.62 J A	4.22	6.64	4.87	7.39	9.12	4.98
6010C	7440-50-8	Copper	mg/kg		6.73	9.93	26.7	10.6 J Q	25.5 J Q	20.8	11.8 J Q
6010C	7440-62-2	Vanadium	mg/kg		31.5	30.5	42.1 J Q	35.9	47.4	60.4	36.3
6010C	7440-66-6	Zinc	mg/kg		52.4	49.1	111 J Q, E, A	49.7 J Q, E	178 J Q, E	149	75.8 J Q, E
6010C	7440-67-7	Zirconium	mg/kg		5.19 U F	4.90 U F	5.14 U F	3.13 J Z	3.76 J Z	5.40	3.11 J Z
6010C	7440-70-2	Calcium	mg/kg		3680	2850	3770	5940 J FD	38400	26600	3330 J FD
6010C	7723-14-0	Phosphorus	mg/kg		362 J Q	608	448 J Q, A	259 J Q	373 J Q	454	274 J Q
6020A	7440-22-4	Silver	mg/kg		0.208 U	0.0370 J Q, Z	0.714 J FD	0.0444 J Z	0.137 J Z	0.200 J Z	0.0300 J Z
6020A	7440-24-6	Strontium	mg/kg		15.7	25.2 J Q, E	27.0 J Q	27.3 J Q, A	58.4 J Q, A	79.2	28.7 J Q, A
6020A	7440-28-0	Thallium	mg/kg		0.221	0.212	0.318	0.248	0.250	0.390	0.276
6020A	7782-49-2	Selenium	mg/kg		0.415 U	0.255 J Z	0.189 J Z	0.160 J Z	0.270 J Z	0.351 J Z	0.152 J Z

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Trench samples collected at a discrete interval.

				Sample Name	FDG-SL-757-SA5C-SB-0.0-0.5	FDG-SL-798-SA5B-SB-0.0-0.5	FDG-SL-841-SA5B-SB-0.0-0.5	FDG-SL-842-SA5B-SB-0.0-0.5	SL-838-SA5B-SB-0.0-0.5	SL-839-SA5B-SB-0.0-0.5	SL-840-SA5B-SB-0.0-0.5	SL-843-SA5B-SB-0.0-0.5
				Sample Type	N	N	N	N	N	N	N	N
				Sample Date	05/14/2014	05/07/2014	05/14/2014	05/14/2014	01/13/2014	01/14/2014	01/13/2014	01/14/2014
				SDG	PH177	PH172	PH177	PH177	PH158	PH159	PH158	PH159
				Start Depth	0	0	0	0	0	0	0	0
				End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
6010C	7429-90-5	Aluminum	mg/kg	14200	11800	16500	16100	14000 J A	15600	14600 J A	16200
6010C	7439-89-6	Iron	mg/kg	21400	14700	24900	19700	21300 J A	23800	18200 J A	29200
6010C	7439-92-1	Lead	mg/kg	12.4	20.1	10.7	9.44	7.98	6.80	8.44	8.47
6010C	7439-93-2	Lithium	mg/kg	17.3	19.0	28.5	20.1	25.3 J A	27.5	17.8 J A	24.4
6010C	7439-95-4	Magnesium	mg/kg	4010	3150	5300	3700	4910 J A	5040	3430 J A	5040
6010C	7439-96-5	Manganese	mg/kg	333	380 J E	342	293	324 J A	361	304 J A	373
6010C	7439-98-7	Molybdenum	mg/kg	1.99 U F	0.330 J Z	2.00 U F	2.04 U F	2.08 U F	2.11 U F	2.11 U F	2.16 U F
6010C	7440-02-0	Nickel	mg/kg	11.5	13.6	14.2	12.8	12.2 J A	13.5	11.2 J A	15.2
6010C	7440-09-7	Potassium	mg/kg	3090	2620 J Q	2810	3260	2830 J A	2890	2620 J A	3580
6010C	7440-23-5	Sodium	mg/kg	114	114	213	87.1 J Z	108	196	141	325
6010C	7440-31-5	Tin	mg/kg	9.96 U B	10.3 U B	10.0 U B	10.2 U B	10.4 U B	10.6 U B	10.6 U B	10.8 U B
6010C	7440-32-6	Titanium	mg/kg	1230	875	1320	1120	1170 J A	1180	1020 J A	1190
6010C	7440-36-0	Antimony	mg/kg	3.99 U	4.10 UJ Q	4.00 U	4.08 U	4.15 UJ Q	4.22 UJ Q	4.23 UJ Q	4.33 UJ Q
6010C	7440-38-2	Arsenic	mg/kg	0.941 J Z	5.74	3.04 J Z	5.58	4.97	4.97	4.47	6.07
6010C	7440-39-3	Barium	mg/kg	110	70.9	93.4	91.4	89.8 J A	103	99.7 J A	98.9
6010C	7440-41-7	Beryllium	mg/kg	0.542 J Z	0.473 J Z	0.692 J Z	0.649 J Z	0.534 J Z	0.725 J Z	0.588 J Z	0.890 J Z
6010C	7440-42-8	Boron	mg/kg	9.96 U B, F	10.3 U B	10.0 U	10.2 U B, F	10.4 U	1.26 J Z	1.51 J Z	10.8 U
6010C	7440-43-9	Cadmium	mg/kg	0.996 U	0.450 J Z	1.00 U	1.02 U	1.04 U	1.06 U	1.06 U	1.08 U
6010C	7440-47-3	Chromium	mg/kg	22.1	18.7 J Q	24.5	21.2	20.0 J A	21.3	17.2 J A	23.1
6010C	7440-48-4	Cobalt	mg/kg	6.11	5.00	6.71	5.31	5.90	5.67	5.42	6.93
6010C	7440-50-8	Copper	mg/kg	18.8	17.6 J Q	14.6	12.9	10.7	17.9	10.3	21.6
6010C	7440-62-2	Vanadium	mg/kg	40.7	28.4	43.3	37.9	38.9 J A	39.7	31.9 J A	44.3
6010C	7440-66-6	Zinc	mg/kg	125	157 J Q, E	61.6	54.6	55.8 J A	58.4	60.1 J A	72.1
6010C	7440-67-7	Zirconium	mg/kg	3.41 J Z	2.32 J Z	3.31 J Z	3.48 J Z	0.890 J Z	3.38 J Z	2.07 J Z	3.78 J Z
6010C	7440-70-2	Calcium	mg/kg	2880	3520	3000	2170	4010 J E, A	3870	2170 J E, A	2760
6010C	7723-14-0	Phosphorus	mg/kg	399	297 J Q	407	441	442 J Q, A	360	259 J Q, A	522
6020A	7440-22-4	Silver	mg/kg	0.0508 J Z	1.31	0.0309 J Z	2.54	0.208 U	0.0715 J Z	0.0423 J Z	0.0418 J Z
6020A	7440-24-6	Strontium	mg/kg	26.3	25.8 J Q, A	21.1	19.8	18.7	28.5 J Q, A	18.4	24.5 J Q, A
6020A	7440-28-0	Thallium	mg/kg	0.254	0.207	0.268	0.263	0.238	0.285	0.274	0.279
6020A	7782-49-2	Selenium	mg/kg	0.100 J Z	0.215 J Z	0.400 U	0.408 U	0.145 J Z	0.145 J Z	0.161 J Z	0.184 J Z

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Trench samples collected at a discrete interval.

				Sample Name	SL-503-SA5C-TR-0.5	SL-529-SA5B-TR-0.5	SL-534-SA8-TR-0.5	SL-548-SA8-TR-0.5	SL-569-SA6-TR-0.5	SL-570-SA6-TR-0.5	SL-587-SA5A-TR-0.5	SL-605-SA5C-TR-0.5	SL-611-SA8-TR-0.5	SL-636-SA5A-TR-0.5
				Sample Type	N	N	N	N	N	N	N	N	N	N
				Sample Date	05/29/2014	05/28/2014	05/19/2014	05/19/2014	05/20/2014	05/20/2014	05/22/2014	05/29/2014	05/20/2014	05/23/2014
				SDG	PH207	PH204	PH185	PH185	PH189	PH189	PH195	PH207	PH189	PH199
				Start Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
				End Depth										
Analytic Method	CAS Number	Chemical Name	Unit											
6010C	7429-90-5	Aluminum	mg/kg	27000	12600	16900	29200	11200	13700	16700 J Q	24900	21900	10300
6010C	7439-89-6	Iron	mg/kg	27900 J E	18100	22100	31500	19600	20300	22200 J Q	27800 J E	26700	17100
6010C	7439-92-1	Lead	mg/kg	11.4	4.94	8.90 J Q	14.9 J Q	7.36 J Q	8.41 J Q	6.81	8.90	17.2 J Q	4.19
6010C	7439-93-2	Lithium	mg/kg	25.7	20.0	21.7	24.5	27.9	25.2	22.0	22.8	20.9	24.1
6010C	7439-95-4	Magnesium	mg/kg	4990 J E	4180 J E	5150	7060	5430	4730	4120 J Q	4360 J E	6980	3440
6010C	7439-96-5	Manganese	mg/kg	428	263	305 J E	504 J E	295 J E	324 J E	298 J Q	472	403 J E	240
6010C	7439-98-7	Molybdenum	mg/kg	2.12 U F	2.05 U F	2.07 U	2.20 U	2.05 U	0.243 J Z	0.347 J Z	2.07 U F	2.10 U	2.00 U
6010C	7440-02-0	Nickel	mg/kg	17.0	8.89	12.2 J A	20.8 J A	9.63 J A	12.1 J A	10.9	13.2	17.7 J A	6.13
6010C	7440-09-7	Potassium	mg/kg	3370 J Q	2780 J Q	2050 J Q	5930 J Q	3130 J Q	3610 J Q	3120	1870 J Q	6150 J Q	2840
6010C	7440-23-5	Sodium	mg/kg	103 J Z	460	105	108 J Z	89.4 J Z	78.9 J Z	146	114	112	146
6010C	7440-31-5	Tin	mg/kg	10.6 U B	10.3 U B	10.3 U B	11.0 U B	10.2 U B	10.3 U B	10.0 U B	10.3 U B	10.5 U B	9.99 U B
6010C	7440-32-6	Titanium	mg/kg	1010	933	1080	1150	1100	1090	1190 J Q	915	1020	958
6010C	7440-36-0	Antimony	mg/kg	4.25 UJ Q	4.11 UJ Q	4.13 UJ Q	4.40 UJ Q	4.10 UJ Q	4.13 UJ Q	4.01 U	4.14 UJ Q	4.21 UJ Q	4.00 U
6010C	7440-38-2	Arsenic	mg/kg	6.42	3.56 J Z	3.16 J Z	3.58 J Z	2.20 J Z	2.22 J Z	3.34 J Z	6.61	3.28 J Z	2.91 J Z
6010C	7440-39-3	Barium	mg/kg	136	82.8	75.1	141	79.1	99.3	98.6	131	90.0	67.9
6010C	7440-41-7	Beryllium	mg/kg	1.11	0.513 J Z	0.589 J Z	1.02 J Z	0.474 J Z	0.571 J Z	0.725 J Z	1.05	0.714 J Z	0.380 J Z
6010C	7440-42-8	Boron	mg/kg	4.11 J Z	3.58 J Z	8.29 J Z	15.5	7.06 J Z	8.14 J Z	10.0 U B	10.3 U	18.0	9.99 U B
6010C	7440-43-9	Cadmium	mg/kg	1.06 U	0.103 J Z	1.03 UJ Q	1.10 UJ Q	1.02 UJ Q	1.03 UJ Q	0.264 J Z	1.03 U	1.05 UJ Q	0.428 J Z
6010C	7440-47-3	Chromium	mg/kg	30.2	15.8	22.5	35.6	17.0	19.7	19.3	24.8	30.9	11.5
6010C	7440-48-4	Cobalt	mg/kg	8.54	4.42	5.69 J E	10.7 J E	5.08 J E	5.79 J E	4.96 J E	12.4	8.21 J E	3.62
6010C	7440-50-8	Copper	mg/kg	12.7	8.36	18.5	21.7	10.7	12.9	8.86	8.74	20.5	5.60
6010C	7440-62-2	Vanadium	mg/kg	56.1	29.8	41.4	64.4	33.7	35.5	37.2	50.3	54.4	24.0
6010C	7440-66-6	Zinc	mg/kg	53.4	67.2	51.7	74.6	57.2	57.8	210 J E	46.6	78.3	63.8
6010C	7440-67-7	Zirconium	mg/kg	5.31 U F	5.13 U F	5.17 U F	6.62	5.12 U F	5.16 U F	5.01 U F	5.17 U F	5.67	4.99 U F
6010C	7440-70-2	Calcium	mg/kg	3880 J E	6820 J E	35700 J E	15400 J E	4170 J E	2760 J E	2540 J Q	3980 J E	53400 J E	2600
6010C	7723-14-0	Phosphorus	mg/kg	224 J Q, E	389 J Q, E	339	418	413	496	302	148 J Q, E	669	302
6020A	7440-22-4	Silver	mg/kg	0.0728 J Z	0.0437 J Z	0.0442 J Z	0.0623 J Z	0.205 U	0.0617 J Z	0.0415 J Z	0.0583 J Z	0.0335 J Z	0.200 U
6020A	7440-24-6	Strontium	mg/kg	37.8	27.7	52.7	47.1	14.0	19.5	19.6	36.0	108	11.2
6020A	7440-28-0	Thallium	mg/kg	0.327	0.207	0.317	0.351	0.196 J Z	0.301	0.260	0.295	0.311	0.264
6020A	7782-49-2	Selenium	mg/kg	0.226 J Z	0.164 J Z	0.117 J Z	0.178 J Z	0.410 U	0.154 J Z	0.219 J Z	0.164 J Z	0.287 J Z	0.400 U

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Trench samples collected at a discrete interval.

				Sample Name	SL-646-SA5C-TR-0.5	SL-651-SA5C-TR-0.5	SL-653-SA5C-TR-0.5	SL-655-SA5C-TR-0.5	SL-686-SA6-TR-0.5	SL-693-SA5B-TR-0.5	SL-699-SA5B-TR-0.5	SL-707-SA5B-TR-0.5	SL-730-SA5A-TR-0.5	FDG2-SL-1175-SA5A-SB-2.0-3.0
				Sample Type	N	N	N	N	N	N	N	N	N	FD
				Sample Date	06/04/2014	05/30/2014	06/02/2014	06/04/2014	05/21/2014	05/27/2014	05/28/2014	05/27/2014	05/22/2014	06/16/2014
				SDG	PH217	PH209	PH212	PH217	PH192	PH201	PH204	PH201	PH195	PH234
				Start Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2
				End Depth										3
Analytic Method	CAS Number	Chemical Name	Unit											
6010C	7429-90-5	Aluminum	mg/kg	13900	17800	14600	19000	14000	18300	16500	17600	13700 J Q	14600
6010C	7439-89-6	Iron	mg/kg	21100	22500	20400	23100	17500	24300	22700	24600	18700 J Q	18600
6010C	7439-92-1	Lead	mg/kg	9.58	7.17	4.91	9.94	23.4	7.53	10.0	9.32	16.2	13.1 J Q, E
6010C	7439-93-2	Lithium	mg/kg	23.2	22.8	24.3	20.6	19.6	22.2	22.6	26.0	19.5	19.9
6010C	7439-95-4	Magnesium	mg/kg	4760	5070 J E	4940	4400	3830	4910	4390 J E	5370	4100 J Q	4010
6010C	7439-96-5	Manganese	mg/kg	277	345	274	337	389	354	308	370	295 J Q	306
6010C	7439-98-7	Molybdenum	mg/kg	0.205 J Z	2.04 U F	0.223 J Z	0.466 J Z	0.396 J Z	2.00 U F	1.98 U F	1.97 U F	0.455 J Z	1.99 U F
6010C	7440-02-0	Nickel	mg/kg	9.58	12.0	9.96	12.4	12.6	14.8	15.2	13.7	9.71	11.7
6010C	7440-09-7	Potassium	mg/kg	3640	3920 J Q	3400	2970	3590	4350	3730 J Q	4720	3660	3440
6010C	7440-23-5	Sodium	mg/kg	68.9 J Z	76.3 J Z	67.8 J Z	84.0 J Z	71.2 J Z	93.0 J Z	103	97.2 J Z	83.0 J Z	76.3 J Z
6010C	7440-31-5	Tin	mg/kg	9.74 U B	10.2 U B	10.1 U B	10.2 U B	10.1 U B	9.98 U B	9.90 U B	9.83 U B	10.0 U B	9.95 U B
6010C	7440-32-6	Titanium	mg/kg	1210	1170	1150	1050	1000	1300	1090	1270	1130 J Q	1000
6010C	7440-36-0	Antimony	mg/kg	3.90 UJ Q	4.09 UJ Q	4.04 U	4.09 UJ Q	4.05 U	3.99 U	3.96 UJ Q	3.93 U	4.02 U	3.98 UJ Q
6010C	7440-38-2	Arsenic	mg/kg	2.19 J Z	4.28	3.24 J Z	2.39 J Z	3.11 J Z	5.03	4.77	4.40	3.09 J Z	5.50
6010C	7440-39-3	Barium	mg/kg	88.9	96.8	84.2	109	106	137	112	126	98.4	96.4
6010C	7440-41-7	Beryllium	mg/kg	0.518 J Z	0.703 J Z	0.568 J Z	0.743 J Z	0.502 J Z	0.909 J Z	0.839 J Z	0.825 J Z	0.628 J Z	0.548 J Z
6010C	7440-42-8	Boron	mg/kg	4.90 J Z	1.78 J Z	6.14 J Z	8.10 J Z	5.22 J Z	9.98 U B	11.4	9.83 U B	10.0 U B	9.95 U B
6010C	7440-43-9	Cadmium	mg/kg	0.228 J Z	1.02 U	1.01 U B	0.301 J Z	0.817 J Z	0.324 J Z	0.150 J Z	0.240 J Z	0.697 J Z	0.995 U
6010C	7440-47-3	Chromium	mg/kg	17.3	20.8	17.0	21.8	19.6	25.0	22.8	23.7	18.0	18.4
6010C	7440-48-4	Cobalt	mg/kg	4.99	7.09	4.93	6.35	5.15	6.41	6.66	6.28	4.73 J E	4.77
6010C	7440-50-8	Copper	mg/kg	7.46	9.27	7.61	10.2	14.4	14.5	13.3	13.8	11.0	11.5
6010C	7440-62-2	Vanadium	mg/kg	33.9	40.7	34.2	41.3	32.6	44.6	38.7	41.5	34.2	32.5
6010C	7440-66-6	Zinc	mg/kg	59.3	60.2	58.0	52.2	146	62.2	91.6	73.7	123 J E	57.5
6010C	7440-67-7	Zirconium	mg/kg	4.87 U F	5.11 U F	5.05 U F	5.11 U F	5.07 U F	4.99 U F	4.95 U F	4.91 U F	5.02 U F	4.97 U F
6010C	7440-70-2	Calcium	mg/kg	2790	3530 J E	2760	3380	2340	2950	2020 J E	3120	2600 J Q	2090
6010C	7723-14-0	Phosphorus	mg/kg	463	447 J Q, E	463	244	398	412	421 J Q, E	620	341	467
6020A	7440-22-4	Silver	mg/kg	0.195 U	0.204 U	0.202 U	0.0397 J Z	0.133 J Z	0.0459 J Z	0.0356 J Z	0.308	2.47	0.0426 J Q, Z
6020A	7440-24-6	Strontium	mg/kg	16.3 J A	22.4	15.8	23.0 J A	20.5	26.9	18.3	23.1	17.9	19.8 J Q, E
6020A	7440-28-0	Thallium	mg/kg	0.295	0.329	0.277	0.306	0.268	0.340	0.302	0.262	0.233	0.284
6020A	7782-49-2	Selenium	mg/kg	0.271 J Z	0.167 J Z	0.305 J Z	0.306 J Z	0.157 J Z	0.389 J Z	0.247 J Z	0.274 J Z	0.237 J Z	0.268 J Z

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-586-SA5D-SB-2.0-3.0	FDG2-SL-875-SA5A-SB-2.0-3.0	FDG-SL-511-SA5C-SB-2.0-3.0	SL-529-SA5B-TR-2.0	SL-570-SA6-TR-2.0	SL-569-SA6-TR-2.5	SL-529-SA5B-TR-3.0	SL-693-SA5B-TR-3.0	SL-699-SA5B-TR-3.0
				Sample Type	N	N	N	N	N	N	N	N	N
				Sample Date	05/21/2014	06/16/2014	05/08/2014	05/28/2014	05/20/2014	05/20/2014	05/28/2014	05/28/2014	05/28/2014
				SDG	PH193	PH234	PH173	PH204	PH189	PH189	PH204	PH204	PH204
				Start Depth	2	2	2	2	2	2.5	3	3	3
				End Depth	3	3	3						
Analytic Method	CAS Number	Chemical Name	Unit										
6010C	7429-90-5	Aluminum	mg/kg		12300 J E	15500	8420	15400	15500	21000	15000	15700	23200
6010C	7439-89-6	Iron	mg/kg		19000 J E	19400	12400	19600	19700	21600	20100	18400	28500
6010C	7439-92-1	Lead	mg/kg		2.99 J E, Z	10.7 J Q, E	13.0	5.90	7.33 J Q	8.23 J Q	5.53	6.24	8.98
6010C	7439-93-2	Lithium	mg/kg		23.0	20.7	11.3	23.2	21.4	26.9	24.5	17.6	30.1
6010C	7439-95-4	Magnesium	mg/kg		5110	4140	3350	4060 J E	4050	4430	4580 J E	3750 J E	5560 J E
6010C	7439-96-5	Manganese	mg/kg		239 J E	321	377 J E	261	440 J E	268 J E	274	223	441
6010C	7439-98-7	Molybdenum	mg/kg		0.174 J Z	2.02 U F	0.209 J Z	2.15 U F	0.447 J Z	0.467 J Z	2.08 U F	2.06 U F	2.11 U F
6010C	7440-02-0	Nickel	mg/kg		21.1 J A	13.1	10.8	10.2	12.4 J A	11.2 J A	9.80	10.3	17.5
6010C	7440-09-7	Potassium	mg/kg		2630 J Q	3650	1290 J Q	3010 J Q	3700 J Q	2200 J Q	3050 J Q	2270 J Q	3240 J Q
6010C	7440-23-5	Sodium	mg/kg		101	78.1 J Z	64.9 J Z	142	79.9 J Z	90.7 J Z	252	86.8 J Z	136
6010C	7440-31-5	Tin	mg/kg		10.0 U B	10.1 U B	10.2 U B	10.7 U B	10.1 U B	10.3 U B	10.4 U B	10.3 U B	10.6 U B
6010C	7440-32-6	Titanium	mg/kg		1150	1070	535	1040	1110	1120	1060	858	1270
6010C	7440-36-0	Antimony	mg/kg		4.00 UJ Q, E	4.03 UJ Q	4.08 UJ Q	4.29 UJ Q	4.05 UJ Q	4.11 UJ Q	4.16 UJ Q	4.11 UJ Q	4.22 UJ Q
6010C	7440-38-2	Arsenic	mg/kg		5.75	5.84	4.58	5.10	2.24 J Z	2.83 J Z	4.31	4.82	5.80
6010C	7440-39-3	Barium	mg/kg		84.5 J Q	107	61.1	82.7	118	95.9	90.3	92.3	142
6010C	7440-41-7	Beryllium	mg/kg		0.313 J Z	0.581 J Z	0.400 J Z	0.662 J Z	0.628 J Z	0.817 J Z	0.631 J Z	0.664 J Z	1.11
6010C	7440-42-8	Boron	mg/kg		10.0 U B	10.1 U B	10.2 U B, F	2.98 J Z	8.13 J Z	7.65 J Z	0.940 J Z	3.13 J Z	5.26 J Z
6010C	7440-43-9	Cadmium	mg/kg		0.458 J Z	1.01 U	0.247 J Z	1.07 U	1.01 UJ Q	1.03 UJ Q	1.04 U	1.03 U	1.06 U
6010C	7440-47-3	Chromium	mg/kg		28.0 J Q	19.5	11.9 J Q	17.2	19.3	21.6	17.6	18.8	27.7
6010C	7440-48-4	Cobalt	mg/kg		6.11	4.91	7.57	4.98	5.76 J E	5.67 J E	5.10	4.88	7.27
6010C	7440-50-8	Copper	mg/kg		10.3	11.9	10.2 J Q	8.33	13.9	9.78	7.81	8.93	12.9
6010C	7440-62-2	Vanadium	mg/kg		40.9 J Q	36.0	27.3	34.7	35.6	42.3	35.3	35.1	51.9
6010C	7440-66-6	Zinc	mg/kg		54.2 J Q, E, A	58.7	90.6 J Q, E	119	57.4	46.0	63.8	40.6	86.4
6010C	7440-67-7	Zirconium	mg/kg		5.00 U F	5.04 U F	2.15 J Z	5.36 U F	5.07 U F	5.13 U F	5.20 U F	5.14 U F	5.28 U F
6010C	7440-70-2	Calcium	mg/kg		2920	2270	17600	2390 J E	2110 J E	2120 J E	4250 J E	2390 J E	2910 J E
6010C	7723-14-0	Phosphorus	mg/kg		439 J Q, A	436	210 J Q	334 J Q, E	360	212	351 J Q, E	254 J Q, E	308 J Q, E
6020A	7440-22-4	Silver	mg/kg		0.200 U	0.0425 J Q, Z	0.0375 J Z	0.215 U	0.0513 J Z	0.0509 J Z	0.0532 J Z	0.206 U	0.0581 J Z
6020A	7440-24-6	Strontium	mg/kg		19.0 J Q	22.6 J Q, E	26.7 J Q, A	17.4	26.2	17.6	21.6	26.7	26.5
6020A	7440-28-0	Thallium	mg/kg		0.268	0.274	0.126 J Z	0.268	0.362	0.246	0.305	0.208	0.314
6020A	7782-49-2	Selenium	mg/kg		0.400 U	0.272 J Z	0.127 J Z	0.126 J Z	0.126 J Z	0.155 J Z	0.130 J Z	0.148 J Z	0.175 J Z

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Trench samples collected at a discrete interval.

				Sample Name	SL-707-SA5B-TR-3.0	SL-636-SA5A-TR-3.5	SL-693-SA5B-TR-3.5	FDG2-SL-1174-SA5A-SB-4.0-5.0	FDG2-SL-581-NBZ-SB-4.0-5.0	FDG2-SL-584-SA5D-SB-4.0-5.0	FDG2-SL-585-SA5D-SB-4.0-5.0	FDG2-SL-874-SA5A-SB-4.0-5.0
				Sample Type	N	N	N	N	N	N	N	N
				Sample Date	05/27/2014	05/23/2014	05/27/2014	05/20/2014	05/22/2014	05/21/2014	05/21/2014	05/20/2014
				SDG	PH201	PH199	PH201	PH188	PH196	PH193	PH193	PH188
				Start Depth	3	3.5	3.5	4	4	4	4	4
				End Depth				5	5	5	5	5
Analytic Method	CAS Number	Chemical Name	Unit									
6010C	7429-90-5	Aluminum	mg/kg	23000	14500	25200	14900	30600	15400 J E	23900 J E	16200
6010C	7439-89-6	Iron	mg/kg	26000	19300	27500	20100	40900	21700 J E	38900 J E	20000
6010C	7439-92-1	Lead	mg/kg	6.52	5.23	7.66	5.67	14.3	2.56 J E, Z	9.63 J E	7.41
6010C	7439-93-2	Lithium	mg/kg	30.3	20.0	26.7	23.1	40.4	29.9	48.5	23.3
6010C	7439-95-4	Magnesium	mg/kg	5810	4090	5280	4420	8320	4440	8650	4540
6010C	7439-96-5	Manganese	mg/kg	364	338	357	367	475	456 J E	310 J E	313
6010C	7439-98-7	Molybdenum	mg/kg	1.99 U F	0.329 J Z	2.04 U F	0.277 J FD, Z	0.437 J Z	2.11 U	2.22 U	0.474 J FD, Z
6010C	7440-02-0	Nickel	mg/kg	14.3	11.7	15.8	11.0	19.8	15.6 J A	32.9 J A	11.9
6010C	7440-09-7	Potassium	mg/kg	3250	4110	2810	3450	5260	2240 J Q	2300 J Q	3470
6010C	7440-23-5	Sodium	mg/kg	123	273	125	104	289	145	793	119
6010C	7440-31-5	Tin	mg/kg	9.97 U B	10.3 U B	10.2 U B	10.4 U B	10.7 U B	10.5 U B	11.1 U B	10.8 U B
6010C	7440-32-6	Titanium	mg/kg	1350	1080	1380	1100	1540	1140	1180	1160
6010C	7440-36-0	Antimony	mg/kg	3.99 U	4.13 U	4.08 U	4.18 UJ Q	4.29 U	4.21 UJ Q, E	4.44 UJ Q, E	4.30 UJ Q
6010C	7440-38-2	Arsenic	mg/kg	5.04	3.49 J Z	6.52	3.84 J Z	10.4	9.61	11.7	4.42
6010C	7440-39-3	Barium	mg/kg	112	111	136	106 J FD, E, Q	137	82.1 J Q	136 J Q	247 J FD, E, Q
6010C	7440-41-7	Beryllium	mg/kg	0.987 J Z	0.565 J Z	1.17	0.529 J Z	1.50	0.449 J Z	1.15	0.604 J Z
6010C	7440-42-8	Boron	mg/kg	9.97 U B	4.61 J Z	10.2 U B	4.55 J Z	10.5 J Z	10.5 U B	11.1 U B	7.29 J Z
6010C	7440-43-9	Cadmium	mg/kg	0.128 J Z	0.590 J Z	0.178 J Z	0.565 J Z	0.261 J Z	0.490 J Z	0.763 J Z	0.590 J Z
6010C	7440-47-3	Chromium	mg/kg	25.0	19.3	28.7	18.4 J E	32.6	22.6 J Q	42.3 J Q	22.0 J E
6010C	7440-48-4	Cobalt	mg/kg	6.33	5.81	6.69	5.58 J A	12.9	5.93	9.69	5.61 J A
6010C	7440-50-8	Copper	mg/kg	12.4	11.2	11.6	10.0	21.1	11.3	26.0	11.0
6010C	7440-62-2	Vanadium	mg/kg	48.7	33.9	53.0	34.8	70.7	33.3 J Q	56.1 J Q	37.5
6010C	7440-66-6	Zinc	mg/kg	61.4	57.3	60.5	57.4	98.2	51.0 J Q, E, A	94.1 J Q, E, A	60.5
6010C	7440-67-7	Zirconium	mg/kg	4.99 U F	5.17 U F	5.10 U F	5.22 U F	6.94	5.27 U F	9.12	5.38 U F
6010C	7440-70-2	Calcium	mg/kg	2910	2620	2960	3440	4620	3010	17000	3140
6010C	7723-14-0	Phosphorus	mg/kg	482	382	243	412 J Q	447	390 J Q, A	672 J Q, A	400 J Q
6020A	7440-22-4	Silver	mg/kg	0.0347 J Z	0.0338 J Z	0.0610 J Z	0.209 UJ FD	0.0997 J Z	0.211 U	0.584	0.0297 J FD, Z
6020A	7440-24-6	Strontium	mg/kg	21.1	24.3	24.1	21.4	29.2	22.9 J Q	62.2 J Q	24.5
6020A	7440-28-0	Thallium	mg/kg	0.278	0.325	0.280	0.289	0.515	0.293	0.363	0.275
6020A	7782-49-2	Selenium	mg/kg	0.272 J Z	0.141 J Z	0.267 J Z	0.161 J Z	0.672	0.165 J Z	0.294 J Z	0.148 J Z

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-878-SA5A-SB-4.0-5.0	FDG-SL-748-SA5C-SB-4.0-5.0	FDG-SL-757-SA5C-SB-4.0-5.0	FDG-SL-841-SA5B-SB-4.0-5.0	FDG-SL-842-SA5B-SB-4.0-5.0	SL-838-SA5B-SB-4.0-5.0	SL-839-SA5B-SB-4.0-5.0
				Sample Type	N	N	N	N	N	N	N
				Sample Date	06/11/2014	05/12/2014	05/14/2014	05/14/2014	05/14/2014	01/13/2014	01/14/2014
				SDG	PH229	PH175	PH177	PH177	PH177	PH158	PH159
				Start Depth	4	4	4	4	4	4	4
				End Depth	5	5	5	5	5	5	5
Analytic Method	CAS Number	Chemical Name	Unit								
6010C	7429-90-5	Aluminum	mg/kg		15800	17300	16100	16000	18500	16400 J A	15800
6010C	7439-89-6	Iron	mg/kg		18600	21000	21400	22400	27700	20300 J A	22200
6010C	7439-92-1	Lead	mg/kg		7.29 J Q, E	8.49	9.62	9.82	14.1	7.81	6.13
6010C	7439-93-2	Lithium	mg/kg		26.4	21.9	17.5	23.2	43.9	21.4 J A	26.6
6010C	7439-95-4	Magnesium	mg/kg		4510	4500	4160	4660	7700	4070 J A	4750
6010C	7439-96-5	Manganese	mg/kg		290	250	315	322	343	271 J A	319
6010C	7439-98-7	Molybdenum	mg/kg		0.417 J Z	2.14 U	0.686 J Z	0.412 J Z	0.877 J Z	2.20 UJ F, FD	2.18 U F
6010C	7440-02-0	Nickel	mg/kg		12.8	14.0	10.0	14.7	22.5	10.8 J A	12.5
6010C	7440-09-7	Potassium	mg/kg		3180	2400	3010	3340	2400	2330 J A	2770
6010C	7440-23-5	Sodium	mg/kg		80.1 J Z	84.9 J Z	130	165	243	148	175
6010C	7440-31-5	Tin	mg/kg		10.3 U B	10.7 U B	10.7 U B	10.7 U B	10.3 U B	11.0 U B	10.9 U B
6010C	7440-32-6	Titanium	mg/kg		1070	1010	1230	1250	1400	1150 J A	1220
6010C	7440-36-0	Antimony	mg/kg		4.11 UJ Q	4.28 U	4.29 U	4.30 U	4.13 U	4.39 UJ Q	4.36 UJ Q
6010C	7440-38-2	Arsenic	mg/kg		7.05	4.58	1.24 J Z	2.99 J Z	35.4	5.05	4.40
6010C	7440-39-3	Barium	mg/kg		92.5	72.5	120	103	91.5	108 J A	99.0
6010C	7440-41-7	Beryllium	mg/kg		0.588 J Z	0.633 J Z	0.552 J Z	0.645 J Z	0.880 J Z	0.610 J Z	0.712 J Z
6010C	7440-42-8	Boron	mg/kg		10.3 U B	10.7 U B, F	10.7 U	10.7 U B	10.3 U	1.17 J Z	1.66 J Z
6010C	7440-43-9	Cadmium	mg/kg		1.03 U	1.07 U	1.07 U	1.07 U	1.03 U	1.10 U	1.09 U
6010C	7440-47-3	Chromium	mg/kg		21.2	28.3	20.0	24.6	39.6	19.3 J A	24.4
6010C	7440-48-4	Cobalt	mg/kg		4.78	4.57	6.74	6.85	6.68	4.50	5.36
6010C	7440-50-8	Copper	mg/kg		9.95	12.8	16.5	15.5	18.8	9.30	17.3
6010C	7440-62-2	Vanadium	mg/kg		33.8	35.3	43.8	41.1	43.9	37.5 J A	38.9
6010C	7440-66-6	Zinc	mg/kg		54.4	54.5	112	57.4	65.4	47.0 J A	55.6
6010C	7440-67-7	Zirconium	mg/kg		5.14 U F	3.13 J Z	2.94 J Z	3.52 J Z	3.63 J Z	1.89 J Z	3.37 J Z
6010C	7440-70-2	Calcium	mg/kg		2340	5130	3860	2370	6280	4330 J FD, E, A	3510
6010C	7723-14-0	Phosphorus	mg/kg		480	257	489	361	450	227 J Q, A	345
6020A	7440-22-4	Silver	mg/kg		0.0779 J Q, Z	0.187 J Z	0.0618 J Z	0.0287 J Z	1.10	0.0415 J Z	0.0355 J Z
6020A	7440-24-6	Strontium	mg/kg		19.9 J Q, E	31.7	32.6	21.4	38.1	23.2	24.3 J Q, A
6020A	7440-28-0	Thallium	mg/kg		0.241	0.286	0.273	0.261	0.291	0.245	0.260
6020A	7782-49-2	Selenium	mg/kg		0.229 J Z	0.193 J Z	0.429 U	0.430 U	0.413 U	0.141 J Z	0.436 UJ FD

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Trench samples collected at a discrete interval.

				Sample Name	SL-840-SA5B-SB-4.0-5.0	SL-843-SA5B-SB-4.0-5.0	SL-503-SA5C-TR-5.0	SL-534-SA8-TR-5.0	SL-548-SA8-TR-5.0	SL-605-SA5C-TR-5.0	SL-611-SA8-TR-5.0	SL-646-SA5C-TR-5.0	SL-651-SA5C-TR-5.0	SL-653-SA5C-TR-5.0
				Sample Type	N	N	N	N	N	N	N	N	N	N
				Sample Date	01/13/2014	01/14/2014	05/29/2014	05/19/2014	05/19/2014	05/29/2014	05/20/2014	06/04/2014	05/30/2014	06/02/2014
				SDG	PH158	PH159	PH207	PH185	PH185	PH207	PH189	PH217	PH209	PH212
				Start Depth	4	4	5	5	5	5	5	5	5	5
				End Depth	5	5								
Analytic Method	CAS Number	Chemical Name	Unit											
6010C	7429-90-5	Aluminum	mg/kg	17800 J A	21100	24800	13400	29100	20900	24700	27200	9500	12800
6010C	7439-89-6	Iron	mg/kg	21100 J A	29800	27600 J E	21800	31900	25900 J E	30700	24000	16200	16900
6010C	7439-92-1	Lead	mg/kg	7.82	8.79	7.55	7.98 J Q	13.1 J Q	9.38	12.8 J Q	8.50	4.95	4.28
6010C	7439-93-2	Lithium	mg/kg	22.5 J A	31.4	29.6	20.4	26.2	21.3	25.8	22.4	22.4	21.1
6010C	7439-95-4	Magnesium	mg/kg	4000 J A	6790	5720 J E	5290	7090	4790 J E	7260	5230	3340 J E	3640
6010C	7439-96-5	Manganese	mg/kg	206 J A	325	338	313 J E	261 J E	268	411 J E	226	248	235
6010C	7439-98-7	Molybdenum	mg/kg	2.19 U F	2.25 U F	2.13 U	2.12 U	2.27 U	2.10 U	2.11 U	2.09 U	2.08 UJ F, FD	0.192 J Z
6010C	7440-02-0	Nickel	mg/kg	11.3 J A	18.4	17.3	11.2 J A	17.1 J A	13.0	18.9 J A	9.18	5.79	6.90
6010C	7440-09-7	Potassium	mg/kg	1760 J A	2490	1950 J Q	1610 J Q	2740 J Q	2580 J Q	5590 J Q	3120	2840 J Q	2730
6010C	7440-23-5	Sodium	mg/kg	78.5 J Z	1890	552	356	163	257	93.4 J Z	102 J Z	71.3 J Z	68.6 J Z
6010C	7440-31-5	Tin	mg/kg	11.0 U B	11.3 U B	10.6 U B	10.6 U B	11.3 U B	10.5 U B	10.6 U B	10.4 U B	10.4 U B	10.3 U B
6010C	7440-32-6	Titanium	mg/kg	1150 J A	1240	981	1110	1020	1030	1060	1440	878	950
6010C	7440-36-0	Antimony	mg/kg	4.38 UJ Q	4.51 UJ Q	4.25 UJ Q	4.24 UJ Q	4.53 UJ Q	4.19 UJ Q	4.22 UJ Q	4.18 UJ Q	4.15 UJ Q	4.11 U
6010C	7440-38-2	Arsenic	mg/kg	5.25	6.22	6.90	4.24 U B	2.92 J Z	6.62	4.22 U B	1.66 J Z	3.17 J Z	3.11 J Z
6010C	7440-39-3	Barium	mg/kg	117 J A	107	133	66.8	123	101	112	98.7	60.7	73.4
6010C	7440-41-7	Beryllium	mg/kg	0.671 J Z	1.01 J Z	0.976 J Z	0.505 J Z	1.00 J Z	0.935 J Z	0.837 J Z	0.923 J Z	0.448 J Z	0.529 J Z
6010C	7440-42-8	Boron	mg/kg	0.927 J Z	3.71 J Z	3.55 J Z	6.99 J Z	12.6	3.87 J Z	15.4	5.47 J Z	1.75 J Z	7.53 J Z
6010C	7440-43-9	Cadmium	mg/kg	1.10 U	1.13 U	1.06 U	1.06 UJ Q	1.13 UJ Q	1.05 U	1.06 UJ Q	1.04 U B	1.04 U	1.03 U B
6010C	7440-47-3	Chromium	mg/kg	21.2 J A	28.9	28.2	20.6	35.4	23.5	32.9	19.0	9.38	12.8
6010C	7440-48-4	Cobalt	mg/kg	3.77	7.02	9.42	5.58 J E	7.01 J E	5.78	9.63 J E	5.15	3.45	4.11
6010C	7440-50-8	Copper	mg/kg	9.74	23.8	9.76	11.8	19.1	18.7	21.0	6.20	4.42	5.23
6010C	7440-62-2	Vanadium	mg/kg	39.8 J A	50.1	55.0	36.1	61.7	47.4	60.1	38.1	20.9	27.8
6010C	7440-66-6	Zinc	mg/kg	46.3 J A	65.1	48.6	51.2	64.4	57.0	75.9	55.3	56.7	51.0
6010C	7440-67-7	Zirconium	mg/kg	1.87 J Z	4.02 J Z	5.31 U F	5.29 U F	6.04	5.24 U F	5.73	5.22 U F	5.19 U F	5.14 U F
6010C	7440-70-2	Calcium	mg/kg	2900 J E, A	11800	4420 J E	5600 J E	18000 J FD, E	4760 J E	30500 J E	2200	2130 J E	1880
6010C	7723-14-0	Phosphorus	mg/kg	142 J Q, A	199	200 J Q, E	361	240	260 J Q, E	536	234	334 J Q, E	262
6020A	7440-22-4	Silver	mg/kg	0.0545 J Z	0.0956 J Z	0.0707 J Z	0.0298 J Z	0.0496 J Z	0.0312 J Z	0.0429 J Z	0.0389 J Z	0.208 U	0.206 U
6020A	7440-24-6	Strontium	mg/kg	25.5	68.8 J Q, A	37.2	17.3	47.7	28.9	65.1	25.0 J A	9.45	16.6
6020A	7440-28-0	Thallium	mg/kg	0.270	0.320	0.213	0.227	0.316	0.275	0.363	0.269	0.227	0.270
6020A	7782-49-2	Selenium	mg/kg	0.123 J Z	0.130 J Z	0.425 U	0.424 U	0.453 U	0.156 J Z	0.255 J Z	0.264 J Z	0.415 UJ FD	0.262 J Z

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Trench samples collected at a discrete interval.

				Sample Name	SL-655-SA5C-TR-5.0	SL-686-SA6-TR-5.0	SL-693-SA5B-TR-5.0	SL-848-SA8-TR-5.0	SL-951-SA5C-TR-5.0	SL-587-SA5A-TR-5.5	SL-887-SA5A-TR-5.5	SL-570-SA6-TR-6.0	SL-730-SA5A-TR-6.0	FDG2-SL-631-SA8-SB-7.0-8.0
				Sample Type	N	N	N	FD	FD	N	N	N	N	N
				Sample Date	06/04/2014	05/21/2014	05/27/2014	05/19/2014	05/30/2014	05/22/2014	05/22/2014	05/20/2014	05/22/2014	06/05/2014
				SDG	PH217	PH192	PH201	PH185	PH209	PH195	PH195	PH189	PH195	PH220
				Start Depth	5	5	5	5	5	5.5	5.5	6	6	7
				End Depth										8
Analytic Method	CAS Number	Chemical Name	Unit											
6010C	7429-90-5	Aluminum	mg/kg	10100	23000	19400	27300	12300	19600 J Q	22000 J Q	21900	21500 J Q	26600
6010C	7439-89-6	Iron	mg/kg	17300	25000	23000	29300	18400	22900 J Q	23500 J Q	25600	25000 J Q	29600
6010C	7439-92-1	Lead	mg/kg	6.97	6.76	6.95	11.3 J Q	5.64	5.45	6.55	9.18 J Q	5.70	12.1
6010C	7439-93-2	Lithium	mg/kg	21.8	27.4	22.5	24.5	23.5	26.3	28.1	30.2	22.5	26.3
6010C	7439-95-4	Magnesium	mg/kg	3350	5050	4810	6420	3660 J E	4210 J Q	4300 J Q	5120	4940 J Q	5770
6010C	7439-96-5	Manganese	mg/kg	217	317	287	260 J E	272	261 J Q	228 J Q	249 J E	195 J Q	312
6010C	7439-98-7	Molybdenum	mg/kg	1.97 U	0.413 J Z	0.347 J Z	2.19 U	2.01 UJ F, FD	0.599 J Z	0.472 J Z	0.322 J Z	0.516 J Z	2.40 U
6010C	7440-02-0	Nickel	mg/kg	5.42	12.3	12.2	15.5 J A	7.18	10.7	11.7	13.1 J A	9.84	15.6
6010C	7440-09-7	Potassium	mg/kg	2800	2030	2840	2600 J Q	2910 J Q	2190	2240	1680 J Q	1950	3000
6010C	7440-23-5	Sodium	mg/kg	134	111	193	154	71.2 J Z	147	159	116	118	710
6010C	7440-31-5	Tin	mg/kg	9.84 U B	10.6 U B	10.3 U B	10.9 U B	10.1 U B	10.8 U B	10.9 U B	10.6 U B	10.7 U B	12.0 U B
6010C	7440-32-6	Titanium	mg/kg	909	1270	1250	1020	943	1140 J Q	1180 J Q	1290	1410 J Q	1110
6010C	7440-36-0	Antimony	mg/kg	3.94 UJ Q	4.22 U	4.11 U	4.38 UJ Q	4.02 UJ Q	4.32 U	4.36 U	4.23 UJ Q	4.29 U	4.80 U
6010C	7440-38-2	Arsenic	mg/kg	1.72 J Z	5.64	5.08	2.99 J Z	3.57 J Z	4.32	5.26	3.03 J Z	5.45	4.09 J Z
6010C	7440-39-3	Barium	mg/kg	62.1	104	111	112	71.2	94.0	98.0	111	103	148
6010C	7440-41-7	Beryllium	mg/kg	0.443 J Z	0.911 J Z	0.898 J Z	0.873 J Z	0.559 J Z	0.836 J Z	0.948 J Z	0.887 J Z	1.03 J Z	0.911 J Z
6010C	7440-42-8	Boron	mg/kg	4.67 J Z	4.95 J Z	10.3 U B	12.9	1.62 J Z	10.8 U B	10.9 U B	8.53 J Z	10.7 U B	11.1 J Z
6010C	7440-43-9	Cadmium	mg/kg	0.984 U B	0.561 J Z	0.128 J Z	1.09 UJ Q	1.01 U	0.193 J Z	0.262 J Z	1.06 UJ Q	1.07 U	0.380 J Z
6010C	7440-47-3	Chromium	mg/kg	9.86	24.0	22.4	33.0	11.8	20.0	23.0	25.1	22.6	30.6
6010C	7440-48-4	Cobalt	mg/kg	3.34	8.69	5.60	7.31 J E	4.04	4.69 J E	4.60 J E	6.11 J E	5.57 J E	7.63
6010C	7440-50-8	Copper	mg/kg	4.23	8.37	10.8	17.6	5.43	7.98	9.48	12.2	7.20	12.3
6010C	7440-62-2	Vanadium	mg/kg	21.2	48.7	42.9	57.9	25.8	39.9	44.1	49.6	48.2	54.2
6010C	7440-66-6	Zinc	mg/kg	53.2	50.7	50.1	58.8	58.5	45.8 J E	46.4 J E	52.5	42.3 J E	56.0
6010C	7440-67-7	Zirconium	mg/kg	4.92 U F	5.28 U F	5.14 U F	5.60	5.03 U F	5.40 U F	5.45 U F	5.28 U F	5.36 U F	5.77 J Z
6010C	7440-70-2	Calcium	mg/kg	2350	2400	2840	46300 J FD, E	2320 J E	2560 J Q	2810 J Q	2550 J E	2390 J Q	34900
6010C	7723-14-0	Phosphorus	mg/kg	281	220	269	239	318 J Q, E	226	258	193	126	171
6020A	7440-22-4	Silver	mg/kg	0.197 U	0.0617 J Z	0.0448 J Z	0.0509 J Z	0.201 U	0.0419 J Z	0.0434 J Z	0.0847 J Z	0.0418 J Z	0.0633 J Z
6020A	7440-24-6	Strontium	mg/kg	14.2 J A	27.1	26.0	53.9	14.7	21.4	21.9	28.4	23.1	71.6
6020A	7440-28-0	Thallium	mg/kg	0.265	0.302	0.245	0.322	0.263	0.242	0.240	0.275	0.281	0.315
6020A	7782-49-2	Selenium	mg/kg	0.261 J Z	0.135 J Z	0.273 J Z	0.438 U	0.143 J FD, Z	0.209 J Z	0.238 J Z	0.423 U	0.313 J Z	0.288 J Z

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Trench samples collected at a discrete interval.

				Sample Name	SL-840-SA5B-SB-7.0-8.0	SL-843-SA5B-SB-7.0-8.0	SL-503-SA5C-TR-7.5	SL-636-SA5A-TR-7.5	FDG-SL-757-SA5C-SB-8.0-9.0	SL-699-SA5B-TR-8.0	FDG2-SL-581-NBZ-SB-9.0-10.0	FDG2-SL-623-SA8-SB-9.0-10.0
				Sample Type	N	N	N	N	N	N	N	N
				Sample Date	01/13/2014	01/14/2014	05/29/2014	05/23/2014	05/14/2014	05/28/2014	05/22/2014	05/21/2014
				SDG	PH158	PH159	PH207	PH199	PH177	PH204	PH196	PH193
				Start Depth	7	7	7.5	7.5	8	8	9	9
				End Depth	8	8			9		10	10
Analytic Method	CAS Number	Chemical Name	Unit									
6010C	7429-90-5	Aluminum	mg/kg		16300 J A	15400	13000	20000	11800	18400	29400	15400 J E
6010C	7439-89-6	Iron	mg/kg		27600 J A	24100	21700 J E	30400	16100	25400	60400	21600 J E
6010C	7439-92-1	Lead	mg/kg		9.81	6.99	3.51	9.08	6.28	6.90	18.9	4.67 J E
6010C	7439-93-2	Lithium	mg/kg		31.0 J A	30.4	25.0	38.7	21.4	31.8	49.5	22.4
6010C	7439-95-4	Magnesium	mg/kg		5880 J A	4920	6070 J E	6790	3460	5660 J E	9500	4170
6010C	7439-96-5	Manganese	mg/kg		257 J A	334	268	666	681	233	335	298 J E
6010C	7439-98-7	Molybdenum	mg/kg		2.26 U F	2.20 U F	2.03 U	0.261 J Z	2.05 U	2.10 U F	0.457 J Z	0.453 J Z
6010C	7440-02-0	Nickel	mg/kg		14.2 J A	14.0	19.1	20.2	13.3	12.8	19.4	9.20 J A
6010C	7440-09-7	Potassium	mg/kg		1820 J A	2010	2300 J Q	2680	1340	2240 J Q	4590	2820 J Q
6010C	7440-23-5	Sodium	mg/kg		72.8 J Z	1130	514	122	89.9 J Z	142	658	80.4 J Z
6010C	7440-31-5	Tin	mg/kg		11.3 U B	11.0 U B	10.2 U B	10.5 U B	10.3 U B	10.5 U B	11.2 U B	10.3 U B
6010C	7440-32-6	Titanium	mg/kg		1300 J A	1070	1180	1260	955	1220	1560	756
6010C	7440-36-0	Antimony	mg/kg		4.52 UJ Q	4.41 UJ Q	4.07 UJ Q	4.20 U	4.10 U	4.20 UJ Q	4.49 U	4.13 UJ Q, E
6010C	7440-38-2	Arsenic	mg/kg		8.60	5.42	8.02	9.15	2.61 J Z	6.38	14.4	8.12
6010C	7440-39-3	Barium	mg/kg		98.3 J A	80.4	66.9	121	84.0	85.4	164	68.4 J Q
6010C	7440-41-7	Beryllium	mg/kg		0.697 J Z	0.765 J Z	0.541 J Z	0.915 J Z	0.415 J Z	0.826 J Z	2.19	0.598 J Z
6010C	7440-42-8	Boron	mg/kg		11.3 U	1.10 J Z	0.959 J Z	6.78 J Z	10.3 U	1.23 J Z	11.4	10.3 U B
6010C	7440-43-9	Cadmium	mg/kg		1.13 U	1.10 U	1.02 U	0.711 J Z	1.03 U	1.05 U	1.12 U	0.463 J Z
6010C	7440-47-3	Chromium	mg/kg		24.6 J A	21.9	28.4	33.4	18.6	25.6	37.7	16.1 J Q
6010C	7440-48-4	Cobalt	mg/kg		6.11	6.53	6.04	11.7	4.50	5.95	9.35	5.63
6010C	7440-50-8	Copper	mg/kg		16.4	18.2	10.6	16.7	11.7	12.7	29.8	8.83
6010C	7440-62-2	Vanadium	mg/kg		49.3 J A	40.7	44.9	55.5	28.8	45.5	78.8	32.5 J Q
6010C	7440-66-6	Zinc	mg/kg		65.0 J A	58.1	54.7	72.1	40.9	55.3	120	53.1 J Q, E, A
6010C	7440-67-7	Zirconium	mg/kg		1.04 J Z	3.43 J Z	5.08 U F	5.26 U F	3.14 J Z	5.25 U F	8.27	5.16 U F
6010C	7440-70-2	Calcium	mg/kg		4570 J E, A	2510	7750 J E	4310	2350	2700 J E	3990	8130
6010C	7723-14-0	Phosphorus	mg/kg		499 J Q, A	274	629 J Q, E	449	269	216 J Q, E	714	252 J Q, A
6020A	7440-22-4	Silver	mg/kg		0.226 U	0.0573 J Z	0.0271 J Z	0.0811 J Z	0.0594 J Z	0.0668 J Z	0.0426 J Z	0.206 U
6020A	7440-24-6	Strontium	mg/kg		28.8	19.0 J Q, A	30.1	26.2	21.0	23.1	22.7	26.8 J Q
6020A	7440-28-0	Thallium	mg/kg		0.294	0.243	0.271	0.341	0.236	0.290	0.524	0.289
6020A	7782-49-2	Selenium	mg/kg		0.157 J Z	0.441 U	0.407 U	0.129 J Z	0.410 U	0.420 U	0.980	0.413 U

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-628-SA8-SB-9.0-10.0	FDG-SL-841-SA5B-SB-9.0-10.0	SL-839-SA5B-SB-9.0-10.0	SL-548-SA8-TR-10.0	SL-605-SA5C-TR-10.0	SL-651-SA5C-TR-10.0	SL-653-SA5C-TR-10.0	SL-611-SA8-TR-10.5	SL-529-SA5B-TR-11.0
				Sample Type	N	N	N	N	N	N	N	N	N
				Sample Date	05/22/2014	05/14/2014	01/14/2014	05/19/2014	05/29/2014	05/30/2014	06/02/2014	05/20/2014	05/28/2014
				SDG	PH196	PH177	PH159	PH185	PH207	PH209	PH212	PH189	PH204
				Start Depth	9	9	9	10	10	10	10	10.5	11
				End Depth	10	10	10						
Analytic Method	CAS Number	Chemical Name	Unit										
6010C	7429-90-5	Aluminum	mg/kg		21900	30300	15200	22900	24200	16500	17200	27100	11300
6010C	7439-89-6	Iron	mg/kg		28100	53000	24200	25700	19500 J E	20500	19600	31800	16500
6010C	7439-92-1	Lead	mg/kg		7.92	24.4	7.03	10.0 J Q	5.06	6.64	5.12	13.3 J Q	3.93
6010C	7439-93-2	Lithium	mg/kg		25.1	69.2	28.7	25.8	23.1	21.8	21.4	29.7	19.7
6010C	7439-95-4	Magnesium	mg/kg		6390	11900	5320	5460	4380 J E	4150 J E	3730	7670	3530 J E
6010C	7439-96-5	Manganese	mg/kg		400	461	324	308 J E	278	293	210	392 J E	215
6010C	7439-98-7	Molybdenum	mg/kg		0.334 J Z	0.295 J Z	2.16 U F	2.22 U	2.20 U F	2.06 U F	0.186 J Z	2.20 U	2.19 U F
6010C	7440-02-0	Nickel	mg/kg		15.2	24.9	25.1	16.1 J A	10.8	10.5	8.57	19.2 J A	6.68
6010C	7440-09-7	Potassium	mg/kg		3800	4480	2900	2360 J Q	1980 J Q	3110 J Q	1750	4280 J Q	2490 J Q
6010C	7440-23-5	Sodium	mg/kg		112	1440	195	129	129	169	138	116	169
6010C	7440-31-5	Tin	mg/kg		10.6 U B	10.6 U B	10.8 U B	11.1 U B	11.0 U B	10.3 U B	10.2 U B	11.0 U B	10.9 U B
6010C	7440-32-6	Titanium	mg/kg		1100	2170	1170	1090	1120	963	969	1190	889
6010C	7440-36-0	Antimony	mg/kg		4.22 U	4.25 U	4.32 UJ Q	4.45 UJ Q	4.39 UJ Q	4.12 UJ Q	4.06 U	4.39 UJ Q	4.38 UJ Q
6010C	7440-38-2	Arsenic	mg/kg		6.90	4.07 J Z	4.74	3.82 J Z	4.02 J Z	4.29	3.14 J Z	2.45 J Z	3.13 J Z
6010C	7440-39-3	Barium	mg/kg		88.8	182	98.2	93.0	96.8	103	82.3	110	66.4
6010C	7440-41-7	Beryllium	mg/kg		0.959 J Z	1.75	0.730 J Z	0.822 J Z	0.913 J Z	0.683 J Z	0.684 J Z	0.878 J Z	0.478 J Z
6010C	7440-42-8	Boron	mg/kg		10.8	53.1 U	1.03 J Z	10.9 J Z	1.48 J Z	2.29 J Z	7.17 J Z	16.3	3.29 J Z
6010C	7440-43-9	Cadmium	mg/kg		0.339 J Z	1.06 U	1.08 U	1.11 UJ Q	1.10 U	1.03 U	1.02 U B	1.10 UJ Q	1.09 U
6010C	7440-47-3	Chromium	mg/kg		28.9	37.9	36.5	27.0	17.5	18.1	15.7	35.9	11.8
6010C	7440-48-4	Cobalt	mg/kg		7.68	10.5	5.78	6.40 J E	5.06	4.76	4.77	9.55 J E	3.53
6010C	7440-50-8	Copper	mg/kg		15.7	34.6	18.7	14.7	7.16	9.03	5.66	20.6	5.59
6010C	7440-62-2	Vanadium	mg/kg		53.6	73.8	40.3	50.0	36.4	34.2	34.1	66.2	25.4
6010C	7440-66-6	Zinc	mg/kg		67.3	126	63.8	57.1	44.6	56.2	40.7	75.0	51.6
6010C	7440-67-7	Zirconium	mg/kg		5.28 U F	4.51 J Z	3.22 J Z	5.56 U F	5.49 U F	5.15 U F	5.08 U F	6.78	5.47 U F
6010C	7440-70-2	Calcium	mg/kg		18800	11000	6260	27900 J E	2430 J E	3240 J E	2250	23500 J E	2730 J E
6010C	7723-14-0	Phosphorus	mg/kg		341	620	404	227	348 J Q, E	307 J Q, E	157	370	310 J Q, E
6020A	7440-22-4	Silver	mg/kg		0.0277 J Z	0.202 J Z	0.0466 J Z	0.0543 J Z	0.0374 J Z	0.206 U	0.0305 J Z	0.0414 J Z	0.0379 J Z
6020A	7440-24-6	Strontium	mg/kg		38.1	74.5	27.3 J Q, A	44.9	19.4	23.9	19.6	67.8	16.5
6020A	7440-28-0	Thallium	mg/kg		0.297	0.495	0.254	0.305	0.224	0.308	0.233	0.394	0.205 J Z
6020A	7782-49-2	Selenium	mg/kg		0.307 J Z	0.174 J Z	0.122 J Z	0.445 U	0.439 U	0.129 J Z	0.229 J Z	0.194 J Z	0.119 J Z

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Trench samples collected at a discrete interval.

				Sample Name	SL-686-SA6-TR-11.0	FDG2-SL-874-SA5A-SB-12.0-13.0	FDG2-SL-581-NBZ-SB-13.0-14.0	FDG2-SL-623-SA8-SB-14.0-15.0	FDG2-SL-628-SA8-SB-14.0-15.0	FDG-SL-756-SA5C-SB-15.0-16.0	FDG-SL-836-SA5B-SB-15.0-16.0
				Sample Type	N	N	N	N	N	N	N
				Sample Date	05/21/2014	05/20/2014	05/22/2014	05/21/2014	05/22/2014	05/13/2014	05/13/2014
				SDG	PH192	PH188	PH196	PH193	PH196	PH176	PH176
				Start Depth	11	12	13	14	14	15	15
				End Depth		13	14	15	15	16	16
Analytic Method	CAS Number	Chemical Name	Unit								
6010C	7429-90-5	Aluminum	mg/kg	17400	14000	28100	17200 J E	18600	17500	31500
6010C	7439-89-6	Iron	mg/kg	20700	25200	42100	22800 J E	26200	18400	33100
6010C	7439-92-1	Lead	mg/kg	5.05	5.34	17.8	4.74 J E	7.02	7.08	13.8
6010C	7439-93-2	Lithium	mg/kg	22.1	23.2	67.7	22.6	26.2	19.9	27.9
6010C	7439-95-4	Magnesium	mg/kg	4170	5520	11000	4880	6180	3240	7830
6010C	7439-96-5	Manganese	mg/kg	167	188	487	378 J E	408	215	490
6010C	7439-98-7	Molybdenum	mg/kg	2.05 U	0.206 J Z	0.320 J Z	0.396 J Z	0.479 J Z	0.455 J Z	2.24 U
6010C	7440-02-0	Nickel	mg/kg	6.62	9.40	26.5	10.6 J A	14.3	7.66	18.8
6010C	7440-09-7	Potassium	mg/kg	1630	2590	4940	3280 J Q	3920	1710	3840
6010C	7440-23-5	Sodium	mg/kg	125	123	512	252	265	119	230
6010C	7440-31-5	Tin	mg/kg	10.3 U B	10.2 U B	10.8 U B	10.6 U B	10.3 U B	10.7 U B	11.2 U B
6010C	7440-32-6	Titanium	mg/kg	1130	1260	1710	892	1190	888	1240
6010C	7440-36-0	Antimony	mg/kg	4.11 U	4.10 UJ Q	4.30 U	4.26 UJ Q, E	4.13 U	4.30 U	4.48 U
6010C	7440-38-2	Arsenic	mg/kg	3.76 J Z	7.35	12.5	6.59	7.54	4.48	5.82
6010C	7440-39-3	Barium	mg/kg	62.5	73.9 J E, Q	140	89.8 J Q	81.4	67.7	123
6010C	7440-41-7	Beryllium	mg/kg	0.585 J Z	0.540 J Z	1.63	0.616 J Z	0.857 J Z	0.762 J Z	1.00 J Z
6010C	7440-42-8	Boron	mg/kg	4.31 J Z	10.2 U B	10.9	10.6 U B	10.5	10.7 U	11.2 U B
6010C	7440-43-9	Cadmium	mg/kg	0.433 J Z	0.541 J Z	0.178 J Z	0.487 J Z	0.367 J Z	1.07 U	1.12 U
6010C	7440-47-3	Chromium	mg/kg	18.4	21.8 J E	39.2	19.3 J Q	26.2	16.1	39.6
6010C	7440-48-4	Cobalt	mg/kg	3.32	3.96 J A	12.9	6.49	7.02	4.63	11.3
6010C	7440-50-8	Copper	mg/kg	6.08	9.98	27.9	9.58	12.5	8.45	21.3
6010C	7440-62-2	Vanadium	mg/kg	39.2	42.8	76.1	38.6 J Q	50.2	33.9	72.1
6010C	7440-66-6	Zinc	mg/kg	39.6	57.1	124	54.6 J Q, E, A	66.0	40.3	72.7
6010C	7440-67-7	Zirconium	mg/kg	5.13 U F	5.12 U F	9.28	5.32 U F	5.16 U F	3.05 J Z	6.81
6010C	7440-70-2	Calcium	mg/kg	1860	3300	5260	6050	17000	1850	24100
6010C	7723-14-0	Phosphorus	mg/kg	137	412 J Q	776	295 J Q, A	398	179	367
6020A	7440-22-4	Silver	mg/kg	0.0462 J Z	0.205 U	0.191 J Z	0.0306 J Z	0.0359 J Z	0.0374 J Z	0.0598 J Z
6020A	7440-24-6	Strontium	mg/kg	19.8	19.3	23.1	31.9 J Q	35.6	17.1	52.2
6020A	7440-28-0	Thallium	mg/kg	0.258	0.294	0.430	0.280	0.287	0.282	0.439
6020A	7782-49-2	Selenium	mg/kg	0.411 U	0.150 J Z	0.784	0.426 U	0.273 J Z	0.221 J Z	0.268 J Z

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Trench samples collected at a discrete interval.

			Sample Name	SL-651-SA5C-TR-15.0	SL-653-SA5C-TR-15.0	SL-839-SA5B-SB-15.5-16.5	FDG2-SL-623-SA8-SB-19.0-20.0	FDG-SL-836-SA5B-SB-19.0-20.0
			Sample Type	N	N	N	N	N
			Sample Date	05/30/2014	06/02/2014	01/14/2014	05/21/2014	05/13/2014
			SDG	PH209	PH212	PH159	PH193	PH176
			Start Depth	15	15	15.5	19	19
			End Depth			16.5	20	20
Analytic Method	CAS Number	Chemical Name	Unit					
6010C	7429-90-5	Aluminum	mg/kg	15600	17200	10800	13000 J E	13000
6010C	7439-89-6	Iron	mg/kg	19500	23900	19500	20000 J E	19400
6010C	7439-92-1	Lead	mg/kg	4.94	7.61	4.50	2.96 J E, Z	7.17
6010C	7439-93-2	Lithium	mg/kg	20.9	25.5	22.6	22.5	23.0
6010C	7439-95-4	Magnesium	mg/kg	4140 J E	4690	5200	4360	4770
6010C	7439-96-5	Manganese	mg/kg	275	349	265	275 J E	265
6010C	7439-98-7	Molybdenum	mg/kg	2.03 U F	0.262 J Z	2.23 U F	0.339 J Z	0.775 J Z
6010C	7440-02-0	Nickel	mg/kg	9.66	12.9	12.1	7.06 J A	8.66
6010C	7440-09-7	Potassium	mg/kg	2820 J Q	4690	2700	3010 J Q	2820
6010C	7440-23-5	Sodium	mg/kg	160	167	463	278	150
6010C	7440-31-5	Tin	mg/kg	10.2 U B	10.2 U B	11.2 U B	10.2 U B	10.1 U B
6010C	7440-32-6	Titanium	mg/kg	945	1070	1110	911	1050
6010C	7440-36-0	Antimony	mg/kg	4.07 UJ Q	4.09 U	4.47 UJ Q	4.10 UJ Q, E	4.02 U
6010C	7440-38-2	Arsenic	mg/kg	4.39	4.32	3.37 J Z	5.81	4.02 U B
6010C	7440-39-3	Barium	mg/kg	78.0	111	84.2	55.5 J Q	84.8
6010C	7440-41-7	Beryllium	mg/kg	0.651 J Z	0.696 J Z	0.462 J Z	0.457 J Z	0.482 J Z
6010C	7440-42-8	Boron	mg/kg	4.80 J Z	8.69 J Z	1.98 J Z	10.2 U B	10.1 U B
6010C	7440-43-9	Cadmium	mg/kg	1.02 U	0.302 J Z	1.12 U	0.454 J Z	1.01 U
6010C	7440-47-3	Chromium	mg/kg	16.7	21.0	16.5	13.9 J Q	18.6
6010C	7440-48-4	Cobalt	mg/kg	4.66	5.94	4.28	4.47	5.04
6010C	7440-50-8	Copper	mg/kg	7.40	12.2	16.1	6.49	10.9
6010C	7440-62-2	Vanadium	mg/kg	34.0	39.3	37.2	30.6 J Q	33.5
6010C	7440-66-6	Zinc	mg/kg	49.9	69.7	61.8	48.7 J Q, E, A	52.8
6010C	7440-67-7	Zirconium	mg/kg	5.08 U F	5.11 U F	4.55 J Z	5.12 U F	2.46 J Z
6010C	7440-70-2	Calcium	mg/kg	4390 J E	2770	17000	2790	3990
6010C	7723-14-0	Phosphorus	mg/kg	289 J Q, E	563	463	224 J Q, A	375
6020A	7440-22-4	Silver	mg/kg	0.0296 J Z	0.0415 J Z	0.0323 J Z	0.205 U	0.201 U
6020A	7440-24-6	Strontium	mg/kg	19.3	26.9	70.4 J Q, A	19.2 J Q	21.0
6020A	7440-28-0	Thallium	mg/kg	0.274	0.388	0.188 J Z	0.259	0.269
6020A	7782-49-2	Selenium	mg/kg	0.122 J Z	0.351 J Z	0.447 U	0.410 U	0.157 J Z

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-558-NBZ-SB-0.0-0.5	FDG2-SL-559-NBZ-SB-0.0-0.5	FDG2-SL-560-NBZ-SB-0.0-0.5	FDG2-SL-561-NBZ-SB-0.0-0.5	FDG2-SL-562-NBZ-SB-0.0-0.5	FDG2-SL-563-NBZ-SB-0.0-0.5	FDG2-SL-564-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N
			Sample Date	06/09/2014	06/09/2014	06/11/2014	05/23/2014	06/12/2014	06/12/2014	06/10/2014
			SDG	PH224	PH224	PH229	PH197	PH231	PH231	PH227
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
160.3M	MOIST	Moisture	%	1.9	1.4	2.7	2.1	19.3	2.6	1.8

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-565-NBZ-SB-0.0-0.5	FDG2-SL-566-NBZ-SB-0.0-0.5	FDG2-SL-567-NBZ-SB-0.0-0.5	FDG2-SL-568-NBZ-SB-0.0-0.5	FDG2-SL-569-NBZ-SB-0.0-0.5	FDG2-SL-570-NBZ-SB-0.0-0.5	FDG2-SL-571-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N
			Sample Date	06/10/2014	06/10/2014	06/17/2014	06/17/2014	06/12/2014	06/12/2014	06/11/2014
			SDG	PH227	PH227	PH235	PH235	PH231	PH231	PH229
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
160.3M	MOIST	Moisture	%	1.9	1.5	1.6	5.4	0.98	0.89	5.3

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-572-NBZ-SB-0.0-0.5	FDG2-SL-573-NBZ-SB-0.0-0.5	FDG2-SL-574-NBZ-SB-0.0-0.5	FDG2-SL-575-NBZ-SB-0.0-0.5	FDG2-SL-576-NBZ-SB-0.0-0.5	FDG2-SL-577-NBZ-SB-0.0-0.5	FDG2-SL-578-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N
			Sample Date	06/17/2014	06/18/2014	06/18/2014	06/18/2014	06/10/2014	06/11/2014	05/22/2014
			SDG	PH235	PH237	PH237	PH237	PH227	PH229	PH196
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
160.3M	MOIST	Moisture	%	2.1	1.4	2.5	0.73	2.5	1.5	7.8

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-581-NBZ-SB-0.0-0.5	FDG2-SL-582-NBZ-SB-0.0-0.5	FDG2-SL-583-NBZ-SB-0.0-0.5	FDG2-SL-584-NBZ-SB-0.0-0.5	FDG2-SL-584-SA5D-SB-0.0-0.5	FDG2-SL-585-NBZ-SB-0.0-0.5	FDG2-SL-585-SA5D-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N
			Sample Date	05/22/2014	06/13/2014	06/12/2014	06/13/2014	05/21/2014	06/13/2014	05/21/2014
			SDG	PH196	PH233	PH231	PH233	PH193	PH233	PH193
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
160.3M	MOIST	Moisture	%	6.2	3.9	0.89	0.83	4.5	2.8	5.4

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-586-NBZ-SB-0.0-0.5	FDG2-SL-586-SA5D-SB-0.0-0.5	FDG2-SL-612-SA5D-SB-0.0-0.5	FDG2-SL-613-SA5D-SB-0.0-0.5	FDG2-SL-614-SA5D-SB-0.0-0.5	FDG2-SL-623-SA8-SB-0.0-0.5	FDG2-SL-624-SA8-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N
			Sample Date	06/13/2014	05/21/2014	06/10/2014	06/10/2014	06/10/2014	05/21/2014	06/05/2014
			SDG	PH233	PH193	PH227	PH227	PH227	PH193	PH220
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
160.3M	MOIST	Moisture	%	2.6	4.3	2.6	3.7	2.6	8.2	1.5

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-625-SA8-SB-0.0-0.5	FDG2-SL-626-SA8-SB-0.0-0.5	FDG2-SL-628-SA8-SB-0.0-0.5	FDG2-SL-629-SA8-SB-0.0-0.5	FDG2-SL-630-SA8-SB-0.0-0.5	FDG2-SL-631-SA8-SB-0.0-0.5	FDG2-SL-632-SA8-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N
			Sample Date	06/05/2014	06/06/2014	05/22/2014	06/11/2014	06/10/2014	06/05/2014	06/09/2014
			SDG	PH220	PH221	PH196	PH229	PH227	PH220	PH224
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
160.3M	MOIST	Moisture	%	2.8	1.1	4.4	1.1	4.2	5.0	1.9

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-691-SA6-SB-0.0-0.5	FDG2-SL-692-SA6-SB-0.0-0.5	FDG2-SL-693-SA6-SB-0.0-0.5	FDG2-SL-694-SA6-SB-0.0-0.5	FDG2-SL-695-SA6-SB-0.0-0.5	FDG2-SL-858-NBZ-SB-0.0-0.5	FDG2-SL-874-SA5A-SB-0.0-0.5
			Sample Type	N	N	N	N	N	FD	N
			Sample Date	06/06/2014	06/06/2014	06/06/2014	06/11/2014	06/11/2014	06/09/2014	05/20/2014
			SDG	PH221	PH221	PH221	PH229	PH229	PH224	PH188
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
160.3M	MOIST	Moisture	%	0.93	1.1	0.85	0.51	0.62	2.0	5.6

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-875-SA5A-SB-0.0-0.5	FDG2-SL-876-SA5A-SB-0.0-0.5	FDG2-SL-877-SA5A-SB-0.0-0.5	FDG2-SL-878-SA5A-SB-0.0-0.5	FDG2-SL-885-SA5D-SB-0.0-0.5	FDG-SL-1049-SA5C-SB-0.0-0.5	FDG-SL-511-SA5C-SB-0.0-0.5
			Sample Type	N	N	N	N	FD	FD	N
			Sample Date	06/16/2014	06/16/2014	06/16/2014	06/11/2014	05/21/2014	05/08/2014	05/08/2014
			SDG	PH234	PH234	PH234	PH229	PH193	PH173	PH173
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
160.3M	MOIST	Moisture	%	0.84	1.2	0.80	1.3	4.6	5.5	7.3

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Trench samples collected at a discrete interval.

			Sample Name	FDG-SL-748-SA5C-SB-0.0-0.5	FDG-SL-749-SA5C-SB-0.0-0.5	FDG-SL-757-SA5C-SB-0.0-0.5	FDG-SL-798-SA5B-SB-0.0-0.5	FDG-SL-841-SA5B-SB-0.0-0.5	FDG-SL-842-SA5B-SB-0.0-0.5	SL-838-SA5B-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N
			Sample Date	05/12/2014	05/08/2014	05/14/2014	05/07/2014	05/14/2014	05/14/2014	01/13/2014
			SDG	PH175	PH173	PH177	PH172	PH177	PH177	PH158
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
160.3M	MOIST	Moisture	%	6.6	5.0	1.6	2.5	3.0	3.0	5.6

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Trench samples collected at a discrete interval.

			Sample Name	SL-839-SA5B-SB-0.0-0.5	SL-840-SA5B-SB-0.0-0.5	SL-843-SA5B-SB-0.0-0.5	SL-503-SA5C-TR-0.5	SL-529-SA5B-TR-0.5	SL-534-SA8-TR-0.5	SL-548-SA8-TR-0.5	SL-569-SA6-TR-0.5	SL-570-SA6-TR-0.5	SL-587-SA5A-TR-0.5
			Sample Type	N	N	N	N	N	N	N	N	N	N
			Sample Date	01/14/2014	01/13/2014	01/14/2014	05/29/2014	05/28/2014	05/19/2014	05/19/2014	05/20/2014	05/20/2014	05/22/2014
			SDG	PH159	PH158	PH159	PH207	PH204	PH185	PH185	PH189	PH189	PH195
			Start Depth	0	0	0	0.5	0.5	0.5	0.5	0.5	0.5	0.5
			End Depth	0.5	0.5	0.5							
Analytic Method	CAS Number	Chemical Name	Unit										
160.3M	MOIST	Moisture	%	6.2	6.3	10.3	5.8	4.5	4.2	9.0	2.4	3.1	3.2

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Trench samples collected at a discrete interval.

			Sample Name	SL-605-SA5C-TR-0.5	SL-611-SA8-TR-0.5	SL-636-SA5A-TR-0.5	SL-646-SA5C-TR-0.5	SL-651-SA5C-TR-0.5	SL-653-SA5C-TR-0.5	SL-655-SA5C-TR-0.5	SL-686-SA6-TR-0.5	SL-693-SA5B-TR-0.5	SL-699-SA5B-TR-0.5
			Sample Type	N	N	N	N	N	N	N	N	N	N
			Sample Date	05/29/2014	05/20/2014	05/23/2014	06/04/2014	05/30/2014	06/02/2014	06/04/2014	05/21/2014	05/27/2014	05/28/2014
			SDG	PH207	PH189	PH199	PH217	PH209	PH212	PH217	PH192	PH201	PH204
			Start Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
			End Depth										
Analytic Method	CAS Number	Chemical Name	Unit										
160.3M	MOIST	Moisture	%	6.1	7.7	2.8	2.2	4.1	2.0	6.0	2.3	1.8	2.9

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Trench samples collected at a discrete interval.

			Sample Name	SL-707-SA5B-TR-0.5	SL-730-SA5A-TR-0.5	SVL-501-SA5B-SB-0.75-1.25	SVL-563-SA5C-SB-1.0-1.5	SVL-577-SA6-SB-1.0-2.0	SVL-611-SA5A-SB-1.35-1.85	SVL-536-SA5B-SB-1.5-2.0	SVL-538-SA5B-SB-1.5-2.0
			Sample Type	N	N	N	N	N	N	N	N
			Sample Date	05/27/2014	05/22/2014	05/12/2014	06/02/2014	06/11/2014	06/09/2014	06/11/2014	05/15/2014
			SDG	PH201	PH195	PH174	PH211	PH228	PH223	PH228	PH178
			Start Depth	0.5	0.5	0.75	1	1	1.4	1.5	1.5
			End Depth			1.25	1.5	2	1.9	2	2
Analytic Method	CAS Number	Chemical Name	Unit								
160.3M	MOIST	Moisture	%	1.2	2.4	9.4	7.0	5.0	3.6	2.1	8.6

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Trench samples collected at a discrete interval.

			Sample Name	SVL-552-SA5A-SB-1.5-2.0	SVL-554-SA5A-SB-1.5-2.0	SVL-574-SA5A-SB-1.5-2.0	SVL-630-SA5A-SB-1.5-2.0	SVL-536-SA5D-SB-1.8-2.3	FDG2-SL-1175-SA5A-SB-2.0-3.0	FDG2-SL-576-NBZ-SB-2.0-3.0
			Sample Type	N	N	N	N	N	FD	N
			Sample Date	06/05/2014	06/05/2014	06/04/2014	06/09/2014	05/23/2014	06/16/2014	06/10/2014
			SDG	PH219	PH219	PH216	PH223	PH198	PH234	PH227
			Start Depth	1.5	1.5	1.5	1.5	1.8	2	2
			End Depth	2	2	2	2	2.3	3	3
Analytic Method	CAS Number	Chemical Name	Unit							
160.3M	MOIST	Moisture	%	4.3	4.1	2.8	5.3	7.3	2.4	3.9

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-586-SA5D-SB-2.0-3.0	FDG2-SL-875-SA5A-SB-2.0-3.0	FDG-SL-511-SA5C-SB-2.0-3.0	SL-529-SA5B-TR-2.0	SL-570-SA6-TR-2.0	SVL-504-SA8-SB-2.0-2.5	SVL-527-SA6-SB-2.0-3.0	SVL-543-SA5B-SB-2.0-2.5
			Sample Type	N	N	N	N	N	N	N	N
			Sample Date	05/21/2014	06/16/2014	05/08/2014	05/28/2014	05/20/2014	05/16/2014	06/09/2014	05/14/2014
			SDG	PH193	PH234	PH173	PH204	PH189	PH181	PH223	PH182
			Start Depth	2	2	2	2	2	2	2	2
			End Depth	3	3	3			2.5	3	2.5
Analytic Method	CAS Number	Chemical Name	Unit								
160.3M	MOIST	Moisture	%	4.8	2.7	3.9	7.7	5.1	7.4	11.0	7.6

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Trench samples collected at a discrete interval.

			Sample Name	SVL-551-SA5C-SB-2.0-2.8	SVL-566-SA5B-SB-2.0-2.5	SL-569-SA6-TR-2.5	SVL-531-SA5C-SB-2.5-2.9	SVL-559-SA5C-SB-2.5-3.0	SVL-569-SA5B-SB-2.5-3.0	SVL-571-SA5A-SB-2.5-3.0	SVL-576-SA5A-SB-2.5-3.0
			Sample Type	N	N	N	N	N	N	N	N
			Sample Date	05/28/2014	05/15/2014	05/20/2014	05/20/2014	05/29/2014	06/11/2014	06/04/2014	06/04/2014
			SDG	PH203	PH178	PH189	PH186	PH206	PH228	PH216	PH216
			Start Depth	2	2	2.5	2.5	2.5	2.5	2.5	2.5
			End Depth	2.8	2.5		2.9	3	3	3	3
Analytic Method	CAS Number	Chemical Name	Unit								
160.3M	MOIST	Moisture	%	4.9	2.5	5.4	8.2	9.7	3.9	2.0	2.1

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-582-NBZ-SB-3.0-3.5	FDG2-SL-877-SA5A-SB-3.0-4.0	SL-529-SA5B-TR-3.0	SL-693-SA5B-TR-3.0	SL-699-SA5B-TR-3.0	SL-707-SA5B-TR-3.0	SVL-521-SA5B-SB-3.0-3.5	SVL-534-SA5B-SB-3.0-3.5
			Sample Type	N	N	N	N	N	N	N	N
			Sample Date	06/13/2014	06/16/2014	05/28/2014	05/28/2014	05/28/2014	05/27/2014	05/14/2014	05/15/2014
			SDG	PH233	PH234	PH204	PH204	PH204	PH201	PH182	PH178
			Start Depth	3	3	3	3	3	3	3	3
			End Depth	3.5	4					3.5	3.5
Analytic Method	CAS Number	Chemical Name	Unit								
160.3M	MOIST	Moisture	%	8.7	3.0	6.6	3.7	6.2	3.6	4.3	6.4

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Trench samples collected at a discrete interval.

			Sample Name	SVL-545-SA5C-SB-3.0-3.5	SVL-557-SA5C-SB-3.0-3.5	SVL-566-SA5A-SB-3.0-3.5	SVL-627-SA5A-SB-3.0-3.5	SL-636-SA5A-TR-3.5	SL-693-SA5B-TR-3.5	SVL-532-SA8-SB-3.5-4.0	SVL-586-SA5B-SB-3.75-4.25
			Sample Type	N	N	N	N	N	N	N	N
			Sample Date	05/28/2014	05/29/2014	06/04/2014	06/06/2014	05/23/2014	05/27/2014	06/12/2014	06/04/2014
			SDG	PH203	PH206	PH216	PH222	PH199	PH201	PH230	PH216
			Start Depth	3	3	3	3	3.5	3.5	3.5	3.75
			End Depth	3.5	3.5	3.5	3.5			4	4.25
Analytic Method	CAS Number	Chemical Name	Unit								
160.3M	MOIST	Moisture	%	7.6	9.1	8.4	4.7	5.1	4.9	9.8	4.6

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Trench samples collected at a discrete interval.

			Sample Name	SVL-986-SA5B-SB-3.75-4.25	SVL-574-SA6-SB-3.8-4.3	FDG2-SL-1174-SA5A-SB-4.0-5.0	FDG2-SL-581-NBZ-SB-4.0-5.0	FDG2-SL-584-SA5D-SB-4.0-5.0	FDG2-SL-585-SA5D-SB-4.0-5.0	FDG2-SL-623-SA8-SB-4.0-5.0
			Sample Type	FD	N	N	N	N	N	N
			Sample Date	06/04/2014	06/09/2014	05/20/2014	05/22/2014	05/21/2014	05/21/2014	05/21/2014
			SDG	PH216	PH223	PH188	PH196	PH193	PH193	PH193
			Start Depth	3.75	3.8	4	4	4	4	4
			End Depth	4.25	4.3	5	5	5	5	5
Analytic Method	CAS Number	Chemical Name	Unit							
160.3M	MOIST	Moisture	%	4.4	4.1	7.9	9.4	5.1	12.6	6.3

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-626-SA8-SB-4.0-5.0	FDG2-SL-628-SA8-SB-4.0-5.0	FDG2-SL-630-SA8-SB-4.0-5.0	FDG2-SL-874-SA5A-SB-4.0-5.0	FDG2-SL-876-SA5A-SB-4.0-5.0	FDG2-SL-878-SA5A-SB-4.0-5.0	FDG2-SL-930-SA8-SB-4.0-5.0
			Sample Type	N	N	N	N	N	N	FD
			Sample Date	06/06/2014	05/22/2014	06/10/2014	05/20/2014	06/16/2014	06/11/2014	06/10/2014
			SDG	PH221	PH196	PH227	PH188	PH234	PH229	PH227
			Start Depth	4	4	4	4	4	4	4
			End Depth	5	5	5	5	5	5	5
Analytic Method	CAS Number	Chemical Name	Unit							
160.3M	MOIST	Moisture	%	5.2	10.3	8.5	7.0	4.3	2.7	8.8

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Trench samples collected at a discrete interval.

			Sample Name	FDG-SL-748-SA5C-SB-4.0-5.0	FDG-SL-757-SA5C-SB-4.0-5.0	FDG-SL-841-SA5B-SB-4.0-5.0	FDG-SL-842-SA5B-SB-4.0-5.0	SL-838-SA5B-SB-4.0-5.0	SL-839-SA5B-SB-4.0-5.0	SL-840-SA5B-SB-4.0-5.0	SL-843-SA5B-SB-4.0-5.0
			Sample Type	N	N	N	N	N	N	N	N
			Sample Date	05/12/2014	05/14/2014	05/14/2014	05/14/2014	01/13/2014	01/14/2014	01/13/2014	01/14/2014
			SDG	PH175	PH177	PH177	PH177	PH158	PH159	PH158	PH159
			Start Depth	4	4	4	4	4	4	4	4
			End Depth	5	5	5	5	5	5	5	5
Analytic Method	CAS Number	Chemical Name	Unit								
160.3M	MOIST	Moisture	%	6.5	9.5	9.6	5.1	8.9	9.2	9.6	12.1

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Trench samples collected at a discrete interval.

			Sample Name	SVL-529-SA5A-SB-4.0-4.5	SVL-532-SA5B-SB-4.0-5.0	SVL-532-SA5D-SB-4.0-4.5	SVL-551-SA6-SB-4.0-5.0	SVL-576-SA5B-SB-4.0-4.3	SVL-832-SA5B-SB-4.0-5.0	SVL-546-SA8-SB-4.4-4.9	SVL-846-SA8-SB-4.4-4.9
			Sample Type	N	N	N	N	N	FD	N	N
			Sample Date	06/05/2014	05/13/2014	05/27/2014	06/10/2014	06/02/2014	05/13/2014	06/12/2014	06/12/2014
			SDG	PH219	PH180	PH200	PH226	PH211	PH180	PH230	PH230
			Start Depth	4	4	4	4	4	4	4.4	4.4
			End Depth	4.5	5	4.5	5	4.3	5	4.9	4.9
Analytic Method	CAS Number	Chemical Name	Unit								
160.3M	MOIST	Moisture	%	4.5	8.1	5.4	9.3	4.4	7.3	4.5	4.5

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-631-SA8-SB-4.5-5.0	SVL-511-SA5D-SB-4.5-5.5	SVL-524-SA8-SB-4.5-5.5	SVL-553-SA5D-SB-4.5-5.5	SVL-556-SA5D-SB-4.5-5.5	SVL-563-SA5B-SB-4.5-5.0	SVL-602-SA5B-SB-4.5-5.0	SVL-811-SA5D-SB-4.5-5.5
			Sample Type	N	N	N	N	N	N	N	FD
			Sample Date	06/05/2014	05/22/2014	05/19/2014	06/03/2014	06/03/2014	06/11/2014	06/03/2014	05/22/2014
			SDG	PH220	PH194	PH183	PH214	PH214	PH228	PH214	PH194
			Start Depth	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
			End Depth	5	5.5	5.5	5.5	5.5	5	5	5.5
Analytic Method	CAS Number	Chemical Name	Unit								
160.3M	MOIST	Moisture	%	8.6	11.6	12.2	12.0	10.8	6.1	5.2	11.5

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Trench samples collected at a discrete interval.

			Sample Name	SL-503-SA5C-TR-5.0	SL-534-SA8-TR-5.0	SL-548-SA8-TR-5.0	SL-605-SA5C-TR-5.0	SL-611-SA8-TR-5.0	SL-646-SA5C-TR-5.0	SL-651-SA5C-TR-5.0	SL-653-SA5C-TR-5.0	SL-655-SA5C-TR-5.0	SL-686-SA6-TR-5.0
			Sample Type	N	N	N	N	N	N	N	N	N	N
			Sample Date	05/29/2014	05/19/2014	05/19/2014	05/29/2014	05/20/2014	06/04/2014	05/30/2014	06/02/2014	06/04/2014	05/21/2014
			SDG	PH207	PH185	PH185	PH207	PH189	PH217	PH209	PH212	PH217	PH192
			Start Depth	5	5	5	5	5	5	5	5	5	5
			End Depth										
Analytic Method	CAS Number	Chemical Name	Unit										
160.3M	MOIST	Moisture	%	10.4	6.5	13.5	7.4	9.8	4.3	4.6	2.7	3.2	5.3

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Trench samples collected at a discrete interval.

			Sample Name	SL-693-SA5B-TR-5.0	SL-848-SA8-TR-5.0	SL-951-SA5C-TR-5.0	SVL-507-SA5C-SB-5.0-6.0	SVL-512-SA5D-SB-5.0-6.0	SVL-515-SA5D-SB-5.0-6.0	SVL-517-SA8-SB-5.0-6.0	SVL-525-SA5C-SB-5.0-6.0	SVL-528-SA8-SB-5.0-6.0
			Sample Type	N	FD	FD	N	N	N	N	N	N
			Sample Date	05/27/2014	05/19/2014	05/30/2014	05/28/2014	05/21/2014	05/21/2014	05/19/2014	05/20/2014	05/19/2014
			SDG	PH201	PH185	PH209	PH203	PH190	PH190	PH183	PH186	PH183
			Start Depth	5	5	5	5	5	5	5	5	5
			End Depth				6	6	6	6	6	6
Analytic Method	CAS Number	Chemical Name	Unit									
160.3M	MOIST	Moisture	%	5.5	12.1	4.4	10.9	13.1	12.9	11.7	13.6	12.0

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Trench samples collected at a discrete interval.

			Sample Name	SVL-546-SA5D-SB-5.0-6.0	SVL-550-SA5D-SB-5.0-6.0	SVL-577-SA5B-SB-5.3-5.8	SL-587-SA5A-TR-5.5	SL-887-SA5A-TR-5.5	SVL-518-SA5C-SB-5.5-6.0	SL-570-SA6-TR-6.0	SL-730-SA5A-TR-6.0	SVL-549-SA5C-SB-6.3-6.8
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	05/27/2014	05/27/2014	06/04/2014	05/22/2014	05/22/2014	06/02/2014	05/20/2014	05/22/2014	06/10/2014
			SDG	PH200	PH200	PH216	PH195	PH195	PH211	PH189	PH195	PH226
			Start Depth	5	5	5.3	5.5	5.5	5.5	6	6	6.3
			End Depth	6	6	5.8			6			6.8
Analytic Method	CAS Number	Chemical Name	Unit									
160.3M	MOIST	Moisture	%	13.1	11.2	8.4	10.1	11.0	13.2	7.2	7.7	12.5

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-630-SA8-SB-7.0-8.0	FDG2-SL-631-SA8-SB-7.0-8.0	SL-840-SA5B-SB-7.0-8.0	SL-843-SA5B-SB-7.0-8.0	SL-503-SA5C-TR-7.5	SL-636-SA5A-TR-7.5	SVL-519-SA8-SB-7.5-8.0	FDG-SL-757-SA5C-SB-8.0-9.0
			Sample Type	N	N	N	N	N	N	N	N
			Sample Date	06/10/2014	06/05/2014	01/13/2014	01/14/2014	05/29/2014	05/23/2014	05/16/2014	05/14/2014
			SDG	PH227	PH220	PH158	PH159	PH207	PH199	PH181	PH177
			Start Depth	7	7	7	7	7.5	7.5	7.5	8
			End Depth	8	8	8	8			8	9
Analytic Method	CAS Number	Chemical Name	Unit								
160.3M	MOIST	Moisture	%	8.0	16.6	13.2	10.1	6.3	5.8	4.7	6.2

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Trench samples collected at a discrete interval.

			Sample Name	SL-699-SA5B-TR-8.0	SVL-562-SA5B-SB-8.0-9.0	FDG2-SL-581-NBZ-SB-9.0-10.0	FDG2-SL-623-SA8-SB-9.0-10.0	FDG2-SL-628-SA8-SB-9.0-10.0	FDG-SL-841-SA5B-SB-9.0-10.0	SL-839-SA5B-SB-9.0-10.0
			Sample Type	N	N	N	N	N	N	N
			Sample Date	05/28/2014	06/10/2014	05/22/2014	05/21/2014	05/22/2014	05/14/2014	01/14/2014
			SDG	PH204	PH226	PH196	PH193	PH196	PH177	PH159
			Start Depth	8	8	9	9	9	9	9
			End Depth		9	10	10	10	10	10
Analytic Method	CAS Number	Chemical Name	Unit							
160.3M	MOIST	Moisture	%	6.6	6.6	11.7	5.0	6.2	9.5	9.2

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Trench samples collected at a discrete interval.

			Sample Name	SVL-553-SA5D-SB-9.0-10.0	SL-548-SA8-TR-10.0	SL-605-SA5C-TR-10.0	SL-651-SA5C-TR-10.0	SL-653-SA5C-TR-10.0	SVL-517-SA8-SB-10.0-11.0	SVL-525-SA5C-SB-10.0-11.0	SVL-556-SA5D-SB-10.0-11.0	SL-611-SA8-TR-10.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	06/03/2014	05/19/2014	05/29/2014	05/30/2014	06/02/2014	05/19/2014	05/20/2014	06/03/2014	05/20/2014
			SDG	PH214	PH185	PH207	PH209	PH212	PH183	PH186	PH214	PH189
			Start Depth	9	10	10	10	10	10	10	10	10.5
			End Depth	10					11	11	11	
Analytic Method	CAS Number	Chemical Name	Unit									
160.3M	MOIST	Moisture	%	12.3	12.7	8.9	4.8	4.4	17.5	16.2	12.3	10.7

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Trench samples collected at a discrete interval.

			Sample Name	SVL-561-SA5C-SB-10.5-11.0	SL-529-SA5B-TR-11.0	SL-686-SA6-TR-11.0	SVL-518-SA5C-SB-11.0-11.5	SVL-528-SA8-SB-11.0-12.0	FDG2-SL-874-SA5A-SB-12.0-13.0	FDG2-SL-581-NBZ-SB-13.0-14.0
			Sample Type	N	N	N	N	N	N	N
			Sample Date	06/10/2014	05/28/2014	05/21/2014	06/02/2014	05/19/2014	05/20/2014	05/22/2014
			SDG	PH226	PH204	PH192	PH211	PH183	PH188	PH196
			Start Depth	10.5	11	11	11	11	12	13
			End Depth	11			11.5	12	13	14
Analytic Method	CAS Number	Chemical Name	Unit							
160.3M	MOIST	Moisture	%	12.1	8.6	4.5	4.7	15.6	7.0	8.0

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-623-SA8-SB-14.0-15.0	FDG2-SL-628-SA8-SB-14.0-15.0	SVL-553-SA5D-SB-14.0-15.0	FDG-SL-756-SA5C-SB-15.0-16.0	FDG-SL-836-SA5B-SB-15.0-16.0	SL-651-SA5C-TR-15.0	SL-653-SA5C-TR-15.0
			Sample Type	N	N	N	N	N	N	N
			Sample Date	05/21/2014	05/22/2014	06/03/2014	05/13/2014	05/13/2014	05/30/2014	06/02/2014
			SDG	PH193	PH196	PH214	PH176	PH176	PH209	PH212
			Start Depth	14	14	14	15	15	15	15
			End Depth	15	15	15	16	16		
Analytic Method	CAS Number	Chemical Name	Unit							
160.3M	MOIST	Moisture	%	6.0	6.0	12.4	6.9	15.0	5.4	3.1

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Trench samples collected at a discrete interval.

			Sample Name	SVL-525-SA5C-SB-15.0-16.0	SL-839-SA5B-SB-15.5-16.5	SVL-517-SA8-SB-15.5-16.5	FDG2-SL-623-SA8-SB-19.0-20.0	FDG-SL-836-SA5B-SB-19.0-20.0	SVL-553-SA5D-SB-19.0-20.0
			Sample Type	N	N	N	N	N	N
			Sample Date	05/20/2014	01/14/2014	05/19/2014	05/21/2014	05/13/2014	06/03/2014
			SDG	PH186	PH159	PH183	PH193	PH176	PH214
			Start Depth	15	15.5	15.5	19	19	19
			End Depth	16	16.5	16.5	20	20	20
Analytic Method	CAS Number	Chemical Name	Unit						
160.3M	MOIST	Moisture	%	12.1	13.9	11.7	4.3	5.3	12.2

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-558-NBZ-SB-0.0-0.5	FDG2-SL-559-NBZ-SB-0.0-0.5	FDG2-SL-560-NBZ-SB-0.0-0.5	FDG2-SL-561-NBZ-SB-0.0-0.5	FDG2-SL-562-NBZ-SB-0.0-0.5	FDG2-SL-563-NBZ-SB-0.0-0.5	FDG2-SL-564-NBZ-SB-0.0-0.5
				Sample Type	N	N	N	N	N	N	N
				Sample Date	06/09/2014	06/09/2014	06/11/2014	05/23/2014	06/12/2014	06/12/2014	06/10/2014
				SDG	PH224	PH224	PH229	PH197	PH231	PH231	PH227
				Start Depth	0	0	0	0	0	0	0
				End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit								
8270D	129-00-0	Pyrene	µg/kg	--	--	--	--	--	--	--	
8270D	191-24-2	Benzo(g,h,i)perylene	µg/kg	--	--	--	--	--	--	--	
8270D	205-99-2	Benzo(b)fluoranthene	µg/kg	--	--	--	--	--	--	--	
8270D	206-44-0	Fluoranthene	µg/kg	--	--	--	--	--	--	--	
8270D	218-01-9	Chrysene	µg/kg	--	--	--	--	--	--	--	
8270D	50-32-8	Benzo(a)pyrene	µg/kg	--	--	--	--	--	--	--	
8270D	56-55-3	Benzo(a)anthracene	µg/kg	--	--	--	--	--	--	--	
8270D	85-01-8	Phenanthrene	µg/kg	--	--	--	--	--	--	--	
8270D SIM	110-91-8	Morpholine	µg/kg	--	--	--	--	--	--	--	
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	21	59	19 U	9.7 J Z	22 U	18 U	18	
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	18 U	18 U	19 U	18 U	22 U	18 U	18 U	
8270D SIM	120-12-7	Anthracene	µg/kg	1.7 UJ FD	1.7 U	1.7 U	1.7 U	0.55 J Z	1.7 U	1.7 U	
8270D SIM	129-00-0	Pyrene	µg/kg	1.4 J FD, Z	1.7 U	1.7 U	1.7 U	1.5 J Z	0.86 J Z	1.4 J Z	
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	18 U	18 U	19 U	18 U	22 U	18 U	18 U	
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	1.7 UJ FD	1.7 U	1.7 U	1.7 U	2.1 U	1.7 U	1.7 U	
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	17 U	17 U	17 U	17 UJ L	21 U	17 U	17 U	
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	1.7 UJ FD	1.7 U	1.7 U	1.7 U	2.1 U	1.7 U	1.7 U	
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	1.5 J FD, Z	1.7 U	1.7 U	1.7 U	0.91 J Z	0.95 J Z	1.6 J Z	
8270D SIM	206-44-0	Fluoranthene	µg/kg	1.7 J FD	0.80 J Z	0.85 J Z	1.7 U	1.8 J Z	0.93 J Z	1.8	
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	7.3 J FD	3.3	7.4	1.7 U	11	3.9	3.1	
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	0.48 J Z	1.7 U	1.7 U	
8270D SIM	218-01-9	Chrysene	µg/kg	1.5 J FD, Q, Z	1.0 J L, Z	1.1 J Z	1.7 U	1.4 J Z	0.94 J Z	1.8	
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	0.76 J FD, Z	1.7 U	1.7 U	1.7 U	2.1 U	1.7 U	1.7 U	
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	2.1 U	1.7 U	1.7 U	
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	1.7 UJ FD	2.2	1.7 U	1.7 U	2.1 U	1.7 U	1.7 U	
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.7 UJ L	1.7 U	1.7 U	1.7 U	2.1 U	1.7 U	1.7 UJ L	
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	2.1 U	1.7 U	1.7 U	
8270D SIM	84-66-2	Diethylphthalate	µg/kg	18 U	18 U	19 U	18 U	22 U	18 U	18 U	
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	18 U	18 U	19 U	18 U	22 U	18 U	18 U	
8270D SIM	85-01-8	Phenanthrene	µg/kg	1.4 J FD, Z	1.7 U	0.75 J Z	1.7 U	3.3	0.69 J Z	1.5 J Z	
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	8.2 J FD, Z	33	19 U	18 U	22 U	18 U	19	
8270D SIM	86-73-7	Fluorene	µg/kg	1.7 UJ FD	1.2 J Z	2.5	4.1	8.7	1.0 J Z	1.7 U	
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	0.77 J FD, Z	1.7 U	1.7 U	1.7 U	2.0 J Z	1.7 U	0.74 J Z	
8270D SIM	91-20-3	Naphthalene	µg/kg	1.4 J FD, Z	1.7 U	0.76 J Z	1.7 U	4.9	0.75 J Z	2.6	
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	0.83 J FD, Z	1.7 U	1.7 U	0.81 J Z	2.7	1.7 U	1.1 J Z	

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-565-NBZ-SB-0.0-0.5	FDG2-SL-567-NBZ-SB-0.0-0.5	FDG2-SL-568-NBZ-SB-0.0-0.5	FDG2-SL-569-NBZ-SB-0.0-0.5	FDG2-SL-570-NBZ-SB-0.0-0.5	FDG2-SL-575-NBZ-SB-0.0-0.5	FDG2-SL-578-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N
			Sample Date	06/10/2014	06/17/2014	06/17/2014	06/12/2014	06/12/2014	06/18/2014	05/22/2014
			SDG	PH227	PH235	PH235	PH231	PH231	PH237	PH196
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
8270D	129-00-0	Pyrene	µg/kg	--	--	--	--	--	--	--
8270D	191-24-2	Benzo(g,h,i)perylene	µg/kg	--	--	--	--	--	--	--
8270D	205-99-2	Benzo(b)fluoranthene	µg/kg	--	--	--	--	--	--	--
8270D	206-44-0	Fluoranthene	µg/kg	--	--	--	--	--	--	--
8270D	218-01-9	Chrysene	µg/kg	--	--	--	--	--	--	--
8270D	50-32-8	Benzo(a)pyrene	µg/kg	--	--	--	--	--	--	--
8270D	56-55-3	Benzo(a)anthracene	µg/kg	--	--	--	--	--	--	--
8270D	85-01-8	Phenanthrene	µg/kg	--	--	--	--	--	--	--
8270D SIM	110-91-8	Morpholine	µg/kg	--	--	--	--	--	--	--
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	54	6.4 J Z	190 U	25	15 J Z	180 U	20 U
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	18 U	18 U	190 U	18 U	18 U	180 U	20 U
8270D SIM	120-12-7	Anthracene	µg/kg	1.7 U	1.7 U	18 U	1.7 U	1.7 U	17 U	1.8 U
8270D SIM	129-00-0	Pyrene	µg/kg	1.5 J Z	1.5 J Z	16 J Z	2.9	0.70 J Z	17 U	1.8 U
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	18 U	18 U	190 U	18 U	18 U	180 U	20 U
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	1.7 U	1.7 U	18 U	0.75 J Z	1.7 U	17 U	1.8 U
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	17 U	17 U	180 U	17 U	17 U	170 U	18 UJ L
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	1.7 U	1.7 U	18 U	0.67 J Z	1.7 U	17 U	1.8 U
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	2.1	2.3	9.8 J Z	2.9	0.88 J Z	17 U	1.8 U
8270D SIM	206-44-0	Fluoranthene	µg/kg	1.9	1.7	17 J Z	3.0	0.78 J Z	17 U	1.8 U
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	5.4	4.8	13 J Z	9.5	1.3 J Z	10 J Z	1.8 U
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.7 U	1.7 U	18 U	1.7 U	1.7 U	17 U	1.8 U
8270D SIM	218-01-9	Chrysene	µg/kg	2.9 J L	1.9	18	2.7	0.80 J Z	17 U	1.8 U
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	0.81 J Z	0.69 J Z	18 U	1.4 J Z	1.7 U	17 U	1.8 U
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	1.7 U	1.7 U	18 U	1.7 U	1.7 U	17 U	1.8 U
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	2.2	0.75 J Z	18 U	1.3 J Z	1.7 U	17 U	1.8 U
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.7 U	1.7 U	18 U	1.7 U	1.7 U	17 U	1.8 U
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.7 U	1.7 U	18 U	1.7 U	1.7 U	17 U	1.8 U
8270D SIM	84-66-2	Diethylphthalate	µg/kg	18 U	18 U	190 U	18 U	18 U	180 U	20 U
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	18 U	18 U	190 U	18 U	18 U	180 U	20 U
8270D SIM	85-01-8	Phenanthrene	µg/kg	1.1 J Z	1.4 J Z	48	1.9	0.68 J Z	17 U	1.8 U
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	120	18 U	190 U	17 J Z	18 U	180 U	20 U
8270D SIM	86-73-7	Fluorene	µg/kg	1.3 J Z	1.7 U	18 U	1.1 J Z	1.7 U	17 U	1.8 U
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	1.7 U	0.71 J Z	25	0.89 J Z	1.7 U	17 U	1.8 U
8270D SIM	91-20-3	Naphthalene	µg/kg	1.7	1.0 J Z	70	2.2	1.7 U	17 U	1.8 U
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	0.95 J Z	0.69 J Z	26	1.2 J Z	0.88 J Z	17 U	1.8 U

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-584-SA5D-SB-0.0-0.5	FDG2-SL-585-SA5D-SB-0.0-0.5	FDG2-SL-586-SA5D-SB-0.0-0.5	FDG2-SL-858-NBZ-SB-0.0-0.5	FDG2-SL-874-SA5A-SB-0.0-0.5	FDG2-SL-875-SA5A-SB-0.0-0.5	FDG2-SL-876-SA5A-SB-0.0-0.5
			Sample Type	N	N	N	FD	N	N	N
			Sample Date	05/21/2014	05/21/2014	05/21/2014	06/09/2014	05/20/2014	06/16/2014	06/16/2014
			SDG	PH193	PH193	PH193	PH224	PH188	PH234	PH234
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
8270D	129-00-0	Pyrene	µg/kg	--	--	--	--	--	--	--
8270D	191-24-2	Benzo(g,h,i)perylene	µg/kg	--	--	--	--	--	--	--
8270D	205-99-2	Benzo(b)fluoranthene	µg/kg	--	--	--	--	--	--	--
8270D	206-44-0	Fluoranthene	µg/kg	--	--	--	--	--	--	--
8270D	218-01-9	Chrysene	µg/kg	--	--	--	--	--	--	--
8270D	50-32-8	Benzo(a)pyrene	µg/kg	--	--	--	--	--	--	--
8270D	56-55-3	Benzo(a)anthracene	µg/kg	--	--	--	--	--	--	--
8270D	85-01-8	Phenanthrene	µg/kg	--	--	--	--	--	--	--
8270D SIM	110-91-8	Morpholine	µg/kg	--	--	--	--	--	--	--
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	22	34	12 J Z	20	19 U	15 J Z	180 U
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	19 U	19 U	19 U	18 U	19 U	18 U	180 U
8270D SIM	120-12-7	Anthracene	µg/kg	12	1.7 J Z	1.7 U	0.65 J FD, Z	1.8 U	0.87 J Z	17 U
8270D SIM	129-00-0	Pyrene	µg/kg	30	8.7	0.89 J Z	3.1 J FD	1.8 U	11	33
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	19 U	19 U	19 U	18 U	19 U	18 U	180 U
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	97	11 J FD, Q	1.7 U	0.84 J FD, Z	1.8 U	1.7	7.0 J Z
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	64	13 J Q, Z	18 U	17 U	18 U	4.0 J Z	170 U
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	110	13 J FD, Q	1.7 U	0.76 J FD, Z	1.8 U	1.3 J Z	17 U
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	73	18 J Q	1.0 J Z	3.0 J FD	1.8 U	8.5	21
8270D SIM	206-44-0	Fluoranthene	µg/kg	49	11 J Q	1.2 J Z	3.4 J FD	1.8 U	14	42
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	22	4.8	1.7 U	15 J FD	1.8 U	6.6	24
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.6 J Z	0.35 J Z	1.7 U	1.7 U	1.8 U	1.7 U	17 U
8270D SIM	218-01-9	Chrysene	µg/kg	41	14 J Q	1.2 J Z	3.1 J FD	1.8 U	9.0 J L	29 J L
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	31	7.5	1.7 U	1.5 J FD, Z	1.8 U	2.9	17 U
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	14	2.1	1.7 U	1.7 U	1.8 U	1.7 U	17 U
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	25	5.7	1.7 U	0.97 J FD, Z	1.8 U	2.9	6.9 J Z
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.7 U	1.8 U	1.7 U	1.7 UJ L	1.8 U	1.7 U	17 U
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.7 U	1.8 U	1.7 U	1.7 U	1.8 U	1.7 U	17 U
8270D SIM	84-66-2	Diethylphthalate	µg/kg	19 U	19 U	19 U	18 U	19 U	18 U	180 U
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	19 U	7.1 J FD, Z	19 U	18 U	19 U	18 U	180 U
8270D SIM	85-01-8	Phenanthrene	µg/kg	48	8.4 J Q	1.0 J Z	2.8 J FD	1.8 U	6.8	26
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	19 U	19 U	19 U	32 J FD	19 U	18 U	180 U
8270D SIM	86-73-7	Fluorene	µg/kg	0.81 J Z	1.8 U	1.7 U	1.5 J FD, Z	1.8 U	1.7 U	17 U
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	3.7	1.6 J Z	0.72 J Z	1.8 J FD	1.8 U	1.7 U	17 U
8270D SIM	91-20-3	Naphthalene	µg/kg	5.7	2.0	0.77 J Z	5.9 J FD	1.8 U	1.7 U	17 U
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	5.8	2.5	1.3 J Z	2.5 J FD	1.8 U	1.7 U	17 U

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-877-SA5A-SB-0.0-0.5	FDG2-SL-885-SA5D-SB-0.0-0.5	FDG-SL-1049-SA5C-SB-0.0-0.5	FDG-SL-511-SA5C-SB-0.0-0.5	FDG-SL-748-SA5C-SB-0.0-0.5	FDG-SL-749-SA5C-SB-0.0-0.5	FDG-SL-757-SA5C-SB-0.0-0.5
				Sample Type	N	FD	FD	N	N	N	N
				Sample Date	06/16/2014	05/21/2014	05/08/2014	05/08/2014	05/12/2014	05/08/2014	05/14/2014
				SDG	PH234	PH193	PH173	PH173	PH175	PH173	PH177
				Start Depth	0	0	0	0	0	0	0
				End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit								
8270D	129-00-0	Pyrene	µg/kg	--	--	--	--	--	--	--	
8270D	191-24-2	Benzo(g,h,i)perylene	µg/kg	--	--	--	--	--	--	--	
8270D	205-99-2	Benzo(b)fluoranthene	µg/kg	--	--	--	--	--	--	--	
8270D	206-44-0	Fluoranthene	µg/kg	--	--	--	--	--	--	--	
8270D	218-01-9	Chrysene	µg/kg	--	--	--	--	--	--	--	
8270D	50-32-8	Benzo(a)pyrene	µg/kg	--	--	--	--	--	--	--	
8270D	56-55-3	Benzo(a)anthracene	µg/kg	--	--	--	--	--	--	--	
8270D	85-01-8	Phenanthrene	µg/kg	--	--	--	--	--	--	--	
8270D SIM	110-91-8	Morpholine	µg/kg	--	--	--	--	--	--	--	
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	8.3 J Z	22	9.8 J Z, C	25 J C	13 J Z	12 J Q, Z, C	14 J Z	
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	18 U	19 U	19 UJ FD, C	19 UJ C	19 U	9.3 J FD, Z, C	18 U	
8270D SIM	120-12-7	Anthracene	µg/kg	1.7 U	2.5	1.1 J FD, Z	8.5	0.85 J Z	2.0 J FD, Q	0.35 J Z	
8270D SIM	129-00-0	Pyrene	µg/kg	1.8	11	1.2 J FD, Z	21	6.3	2.1 J FD, Q	2.0	
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	18 U	19 U	19 U	19 U	19 U	19 U	18 U	
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	1.7 U	20 J FD	1.7 U	4.6	2.6	1.7 U	2.8	
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	17 U	18	18 U	13 J Z	3.8 J Z	18 U	11 J Z	
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	1.7 U	22 J FD	1.7 U	3.0	1.9	1.7 U	1.3 J Z	
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	1.8	24	1.7 UJ FD, C	14 J C	6.6	1.0 J FD, Z, C	7.8	
8270D SIM	206-44-0	Fluoranthene	µg/kg	2.3	15	0.80 J FD, Z	18	7.0	1.9 J FD, Q	1.7	
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	2.6	6.2	1.7 U	5.7	1.9	1.7 U	2.5	
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.7 U	0.49 J Z	1.7 U	2.0	1.8 U	1.7 U	1.7 U	
8270D SIM	218-01-9	Chrysene	µg/kg	2.2 J L	20	0.46 J FD, Z	14	6.0	1.3 J FD, Z	5.4	
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	0.73 J Z	9.1	1.7 UJ FD	9.1	2.8	0.89 J FD, Z	3.8	
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	1.7 U	3.0	1.7 U	1.9	1.8 U	1.7 U	1.7	
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	1.7 U	7.4	0.95 J Z	10	3.0	1.2 J Z	1.2 J Z	
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.7 U	1.7 U	
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.7 U	1.7 U	1.7 U	3.0	1.8 U	1.7 U	1.7 U	
8270D SIM	84-66-2	Diethylphthalate	µg/kg	18 U	19 U	19 U	19 U	19 U	19 U	18 U	
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	18 U	19 UJ FD	19 U	19 U	19 U	19 U	18 U	
8270D SIM	85-01-8	Phenanthrene	µg/kg	1.3 J Z	12	9.7	75	5.7	8.6 J Q	1.4 J Z	
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	18 U	19 U	7.1 J Z	11 J Z	19 U	6.8 J Z	12 J Z	
8270D SIM	86-73-7	Fluorene	µg/kg	1.7 U	1.7 U	1.7 U	3.2	1.8 U	1.7 U	1.7 U	
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	1.7 U	1.3 J Z	1.1 J FD, Z	62	1.2 J Z	4.1 J FD, Q	1.7 U	
8270D SIM	91-20-3	Naphthalene	µg/kg	1.7 U	2.6	1.7 UJ FD	17	3.6	1.1 J FD, Q, Z	1.7 U	
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	1.7 U	2.4	1.7 UJ FD	69	1.7 J Z	3.4 J FD, Q	1.7 U	

U – Compound not detected above reporting limit
J – Result is an estimated value
R – Result is rejected
Z, etc. – Specific description qualifiers that are applied during validation. Definitions are provided at the beginning of Appendix A. The letters can vary and there can be more than one letter.

Trench samples collected at a discrete interval.

				Sample Name	FDG-SL-798-SA5B-SB-0.0-0.5	FDG-SL-841-SA5B-SB-0.0-0.5	FDG-SL-842-SA5B-SB-0.0-0.5	SL-838-SA5B-SB-0.0-0.5	SL-839-SA5B-SB-0.0-0.5	SL-840-SA5B-SB-0.0-0.5	SL-843-SA5B-SB-0.0-0.5	SL-503-SA5C-TR-0.5
				Sample Type	N	N	N	N	N	N	N	N
				Sample Date	05/07/2014	05/14/2014	05/14/2014	01/13/2014	01/14/2014	01/13/2014	01/14/2014	05/29/2014
				SDG	PH172	PH177	PH177	PH158	PH159	PH158	PH159	PH207
				Start Depth	0	0	0	0	0	0	0	0.5
				End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
Analytic Method	CAS Number	Chemical Name	Unit									
8270D	129-00-0	Pyrene	µg/kg	--	--	--	--	--	--	--	--	--
8270D	191-24-2	Benzo(g,h,i)perylene	µg/kg	--	--	--	--	--	--	--	--	--
8270D	205-99-2	Benzo(b)fluoranthene	µg/kg	--	--	--	--	--	--	--	--	--
8270D	206-44-0	Fluoranthene	µg/kg	--	--	--	--	--	--	--	--	--
8270D	218-01-9	Chrysene	µg/kg	--	--	--	--	--	--	--	--	--
8270D	50-32-8	Benzo(a)pyrene	µg/kg	--	--	--	--	--	--	--	--	--
8270D	56-55-3	Benzo(a)anthracene	µg/kg	--	--	--	--	--	--	--	--	--
8270D	85-01-8	Phenanthrene	µg/kg	--	--	--	--	--	--	--	--	--
8270D SIM	110-91-8	Morpholine	µg/kg	--	--	--	--	--	--	--	--	--
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	33	9.7 J Z	9.4 J Z	19 U	19 U	8.0 J Z	20 U	19 U	
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	10 J Z	19 U	19 U	19 U	19 U	19 U	20 U	19 U	
8270D SIM	120-12-7	Anthracene	µg/kg	29	1.7 U	1.7 U	1.7 U	2.8	1.7 U	0.55 J Z	0.92 J Z	
8270D SIM	129-00-0	Pyrene	µg/kg	280	1.7 U	1.7 U	1.7 U	54	2.1	5.4	4.3	
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	18 U	19 U	19 U	19 U	19 U	19 U	20 U	19 U	
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	590	1.7 U	1.7 U	1.7 U	2.4	0.95 J Z	1.9 U	1.8 U	
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	1100	18 U	18 U	18 U	7.2 J Z	18 U	19 U	18 UJ L	
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	770	1.7 U	1.7 U	1.7 U	2.6	1.7 U	1.9 U	1.8 U	
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	2600	1.7 U	1.7 U	1.7 U	15	1.3 J Z	3.7	3.0	
8270D SIM	206-44-0	Fluoranthene	µg/kg	330	1.7 U	0.85 J Z	1.7 U	38	1.9	4.4	7.5	
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	250	1.7 U	1.7 U	1.7 U	8.0	1.7 U	1.5 J Z	0.79 J Z	
8270D SIM	208-96-8	Acenaphthylene	µg/kg	29	1.7 U	1.7 U	1.7 U	1.8 U	1.7 U	1.9 U	0.62 J Z	
8270D SIM	218-01-9	Chrysene	µg/kg	2000	1.7 U	0.66 J Z	1.7 U	19	1.7	3.6	4.0	
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	680	1.7 U	1.7 U	1.7 U	11	0.83 J Z	1.7 J Z	0.94 J Z	
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	190	1.7 U	1.7 U	1.7 U	0.99 J Z	1.7 U	1.9 U	1.8 U	
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	430	1.7 U	1.7 U	1.7 U	18	0.75 J Z	2.4	1.4 J Z	
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.7 U	1.9 U	1.8 U	
8270D SIM	83-32-9	Acenaphthene	µg/kg	0.98 J Z	1.7 U	1.7 U	1.7 U	1.8 U	1.7 U	1.9 U	1.8 U	
8270D SIM	84-66-2	Diethylphthalate	µg/kg	18 U	19 U	19 U	19 U	19 U	19 U	20 U	19 U	
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	18 U	19 U	19 U	19 U	19 U	19 U	20 U	19 U	
8270D SIM	85-01-8	Phenanthrene	µg/kg	160	1.7 U	1.7 U	1.7 U	6.1	1.4 J Z	1.8 J Z	7.5	
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	9.0 J Z	19 U	19 U	19 U	19 U	19 U	20 U	19 U	
8270D SIM	86-73-7	Fluorene	µg/kg	1.7	1.7 U	1.7 U	1.7 U	1.8 U	1.7 U	1.9 U	0.84 J Z	
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	18	1.7 U	1.7 U	1.7 U	1.8 U	1.7 U	1.9 U	1.6 J Z	
8270D SIM	91-20-3	Naphthalene	µg/kg	19	1.7 U	1.7 U	1.7 U	1.8 U	1.7 U	1.9 U	6.7	
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	24	1.7 U	1.7 U	1.7 U	1.8 U	1.7 U	1.9 U	4.7	

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Trench samples collected at a discrete interval.

				Sample Name	SL-529-SA5B-TR-0.5	SL-534-SA8-TR-0.5	SL-548-SA8-TR-0.5	SL-569-SA6-TR-0.5	SL-570-SA6-TR-0.5	SL-587-SA5A-TR-0.5	SL-605-SA5C-TR-0.5	SL-611-SA8-TR-0.5	SL-636-SA5A-TR-0.5	SL-646-SA5C-TR-0.5
				Sample Type	N	N	N	N	N	N	N	N	N	N
				Sample Date	05/28/2014	05/19/2014	05/19/2014	05/20/2014	05/20/2014	05/22/2014	05/29/2014	05/20/2014	05/23/2014	06/04/2014
				SDG	PH204	PH185	PH185	PH189	PH189	PH195	PH207	PH189	PH199	PH217
				Start Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
				End Depth										
Analytic Method	CAS Number	Chemical Name	Unit											
8270D	129-00-0	Pyrene	µg/kg	--	--	--	--	--	--	--	--	--	--	--
8270D	191-24-2	Benzo(g,h,i)perylene	µg/kg	--	--	--	--	--	--	--	--	--	--	--
8270D	205-99-2	Benzo(b)fluoranthene	µg/kg	--	--	--	--	--	--	--	--	--	--	--
8270D	206-44-0	Fluoranthene	µg/kg	--	--	--	--	--	--	--	--	--	--	--
8270D	218-01-9	Chrysene	µg/kg	--	--	--	--	--	--	--	--	--	--	--
8270D	50-32-8	Benzo(a)pyrene	µg/kg	--	--	--	--	--	--	--	--	--	--	--
8270D	56-55-3	Benzo(a)anthracene	µg/kg	--	--	--	--	--	--	--	--	--	--	--
8270D	85-01-8	Phenanthrene	µg/kg	--	--	--	--	--	--	--	--	--	--	--
8270D SIM	110-91-8	Morpholine	µg/kg	21 U	--	--	--	--	--	--	--	--	--	20 U
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	16 J Z	19 U	14 J Z	18 U	19 U	19 U	19 U	19 U	11 J Z	19 U	18 U
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	7.9 J Z	19 U	20 U	18 U	19 U	19 U	19 U	19 U	19 U	19 U	18 U
8270D SIM	120-12-7	Anthracene	µg/kg	1.9	1.7 U	0.61 J Z	1.7 U	1.7 U	1.7 U	0.58 J Z	1.8 U	1.7 U	1.7 U	1.7 U
8270D SIM	129-00-0	Pyrene	µg/kg	8.6	1.7 U	1.8	1.7 U	1.7 U	0.99 J Z	1.6 J Z	1.3 J Z	1.7 U	1.7 U	1.7 U
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	19 U	19 U	20 U	18 U	19 U	19 U	19 U	19 U	19 U	19 U	18 U
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	2.7	1.7 U	1.8 U	1.7 U	1.7 U	2.4	2.1	1.3 J Z	1.5 J Z	1.7 U	1.7 U
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	4.3 J L, Z	18 U	19 U	17 U	17 U	18 UJ L	18 UJ L	18 U	17 UJ L	17 U	17 U
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	1.9	1.7 U	1.8 U	1.7 U	1.7 U	0.77 J Z	1.3 J Z	0.90 J Z	1.7 U	1.7 U	1.7 U
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	7.0	1.7 UJ C	1.3 J Z, C	1.7 U	1.7 U	2.4	2.4	2.2	1.7 U	1.7 U	1.7 U
8270D SIM	206-44-0	Fluoranthene	µg/kg	12	1.7 U	2.6	1.7 U	1.7 U	0.70 J Z	1.7 J Z	1.5 J Z	1.7 U	1.7 U	1.7 U
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	2.7	1.7 U	1.8 U	1.7 U	1.7 U	1.7	0.80 J Z	1.8 U	1.7 U	1.7 U	1.4 J Z
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.7 U	1.7 U	1.8 U	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.7 U	1.7 U	1.7 U
8270D SIM	218-01-9	Chrysene	µg/kg	6.9	0.99 J Z	1.8	1.7 U	1.7 U	2.8	1.4 J Z	2.1	1.7 U	1.7 U	0.72 J Z
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	4.7	1.7 U	1.8 U	1.7 U	1.7 U	0.77 J Z	1.5 J Z	0.72 J Z	1.7 U	1.7 U	1.7 U
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	0.97 J Z	1.7 U	1.8 U	1.7 U	1.7 U	0.75 J Z	1.8 U	1.8 U	1.7 U	1.7 U	1.7 U
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	6.7	1.7 U	0.85 J Z	1.7 U	1.7 U	0.85 J Z	0.92 J Z	0.85 J Z	1.7 U	1.7 U	1.7 U
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.7 U	1.7 U	1.8 U	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.7 U	1.7 U	1.7 UJ L
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.7 U	1.7 U	1.8 U	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.7 U	1.7 U	1.7 U
8270D SIM	84-66-2	Diethylphthalate	µg/kg	19 U	19 U	20 U	18 U	19 U	19 U	19 U	19 U	19 U	19 U	18 U
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	19 U	19 U	20 U	18 U	19 U	19 U	19 U	19 U	19 U	19 U	18 U
8270D SIM	85-01-8	Phenanthrene	µg/kg	5.9	1.7 U	3.7	1.7 U	1.7 U	1.7 U	1.0 J Z	1.3 J Z	1.7 U	1.7 U	1.7 U
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	7.3 J Z	19 U	20 U	18 U	19 U	19 U	19 U	19 U	19 U	19 U	18 U
8270D SIM	86-73-7	Fluorene	µg/kg	1.7 U	1.7 U	1.8 U	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.7 U	1.7 U	1.7 U
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	1.7 U	1.7 U	0.83 J Z	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.7 U	1.7 U	1.7 U
8270D SIM	91-20-3	Naphthalene	µg/kg	1.7 U	0.73 J Z	4.3	1.7 U	1.7 U	1.7 U	1.8 U	1.0 J Z	1.7 U	1.7 U	1.7 U
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	1.7 U	0.71 J Z	1.8	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.7 U	1.7 U	1.7 U

U – Compound not detected above reporting limit
J – Result is an estimated value
R – Result is rejected
Z, etc. – Specific description qualifiers that are applied during validation. Definitions are provided at the beginning of Appendix A. The letters can vary and there can be more than one letter.

Trench samples collected at a discrete interval.

			Sample Name	SL-651-SA5C-TR-0.5	SL-653-SA5C-TR-0.5	SL-655-SA5C-TR-0.5	SL-686-SA6-TR-0.5	SL-693-SA5B-TR-0.5	SL-699-SA5B-TR-0.5	SL-707-SA5B-TR-0.5	SL-730-SA5A-TR-0.5	FDG2-SL-1175-SA5A-SB-2.0-3.0
			Sample Type	N	N	N	N	N	N	N	N	FD
			Sample Date	05/30/2014	06/02/2014	06/04/2014	05/21/2014	05/27/2014	05/28/2014	05/27/2014	05/22/2014	06/16/2014
			SDG	PH209	PH212	PH217	PH192	PH201	PH204	PH201	PH195	PH234
			Start Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2
			End Depth									3
Analytic Method	CAS Number	Chemical Name	Unit									
8270D	129-00-0	Pyrene	µg/kg	5 J Z	--	--	--	--	--	--	--	--
8270D	191-24-2	Benzo(g,h,i)perylene	µg/kg	4 J Z	--	--	--	--	--	--	--	--
8270D	205-99-2	Benzo(b)fluoranthene	µg/kg	5 J Z	5 J Z	--	--	--	--	--	--	--
8270D	206-44-0	Fluoranthene	µg/kg	4 J Z	--	--	--	--	--	--	--	--
8270D	218-01-9	Chrysene	µg/kg	5 J Z	--	--	--	--	--	--	--	--
8270D	50-32-8	Benzo(a)pyrene	µg/kg	4 J Z	4 J Z	--	--	--	--	--	--	--
8270D	56-55-3	Benzo(a)anthracene	µg/kg	4 J Z	--	--	--	--	--	--	--	--
8270D	85-01-8	Phenanthrene	µg/kg	--	--	--	--	--	--	--	--	--
8270D SIM	110-91-8	Morpholine	µg/kg	--	--	21 U	--	--	--	--	--	--
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	19 U	18 U	19 U	28	18 U	21	18 U	16 J Z	18 U
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	19 U	18 U	19 U	18 U	18 U	19 U	18 U	18 U	18 U
8270D SIM	120-12-7	Anthracene	µg/kg	1.7 U	0.71 J Z	1.8 U	1.8 J Q	1.7 U	20	1.7 U	0.55 J Z	1.7 U
8270D SIM	129-00-0	Pyrene	µg/kg	--	2.4	13	11 J Q	0.81 J Z	77	2.0	3.1	1.0 J Z
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	19 U	18 U	19 U	18 U	18 U	19 U	18 U	18 U	18 U
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	--	1.7 U	1.8 U	3.4 J Q	1.7 U	4.6	1.7 U	1.4 J Z	0.68 J FD, Z
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	18 UJ L	17 UJ L	18 U	5.5 J Q, Z	17 UJ L	10 J L, Z	17 UJ L	17 UJ L	17 U
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	1.7 U	0.74 J Z	1.8 U	3.0 J Q	1.7 U	3.6	1.7 U	1.0 J Z	1.7 U
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	--	--	1.8 U	13 J Q	1.0 J Z	27	1.9	2.9	2.4
8270D SIM	206-44-0	Fluoranthene	µg/kg	--	3.5	1.8 U	16 J Q	1.1 J Z	73	2.9	3.9	1.3 J Z
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	1.7 U	1.7 U	1.8 U	3.9 J Q	1.7 U	1.7 U	1.7 U	1.1 J Z	1.3 J Z
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.7 U	1.7 U	1.8 U	0.64 J Z	1.7 U	8.8	1.7 U	1.7 U	1.7 U
8270D SIM	218-01-9	Chrysene	µg/kg	--	1.3 J Z	1.6 J Z	14 J Q	1.3 J Z	36	2.5	7.1	2.7 J L
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	--	--	1.8 U	3.7 J Q	1.7 U	21	1.7 U	1.0 J Z	0.81 J Z
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	1.7 U	1.7 U	1.8 U	1.0 J Q, Z	1.7 U	1.5 J Z	1.7 U	1.7 U	1.7 U
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	--	1.5 J Z	1.8 U	3.9 J Q	1.7 U	45	0.71 J Z	1.7 U	1.7 U
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.7 U	1.7 U	1.8 UJ L	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.7 U	1.7 U	1.8 U	1.7 U	1.7 U	3.8	1.7 U	1.7 U	1.7 U
8270D SIM	84-66-2	Diethylphthalate	µg/kg	19 U	18 U	19 U	18 U	18 U	7.2 J Z	18 U	18 U	18 U
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	19 U	18 U	19 U	7.6 J Z	18 U	19 U	18 U	6.2 J Z	18 U
8270D SIM	85-01-8	Phenanthrene	µg/kg	1.4 J Z	2.8	1.8 U	7.4 J Q	1.7 U	700	2.2	1.7	1.7 UJ FD
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	19 U	18 U	19 U	18 U	18 U	19 U	18 U	18 U	18 U
8270D SIM	86-73-7	Fluorene	µg/kg	1.7 U	1.7 U	1.8 U	0.88 J Q, Z	1.7 U	3.0	1.7 U	1.7 U	1.7 U
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	1.7 U	1.7 U	1.8 U	1.1 J Q, Z	1.7 U	280	0.92 J Z	1.7 U	1.7 U
8270D SIM	91-20-3	Naphthalene	µg/kg	1.2 J Z	1.7 U	1.8 U	1.0 J Q, Z	0.73 J Z	76	1.4 J Z	1.7 U	1.7 U
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	1.7 U	1.7 U	1.8 U	1.4 J Q, Z	1.7 U	250	1.7	1.7 U	1.7 U

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-586-SA5D-SB-2.0-3.0	FDG2-SL-875-SA5A-SB-2.0-3.0	FDG-SL-511-SA5C-SB-2.0-3.0	SL-529-SA5B-TR-2.0	SL-570-SA6-TR-2.0	SL-569-SA6-TR-2.5	FDG2-SL-877-SA5A-SB-3.0-4.0	SL-529-SA5B-TR-3.0
			Sample Type	N	N	N	N	N	N	N	N
			Sample Date	05/21/2014	06/16/2014	05/08/2014	05/28/2014	05/20/2014	05/20/2014	06/16/2014	05/28/2014
			SDG	PH193	PH234	PH173	PH204	PH189	PH189	PH234	PH204
			Start Depth	2	2	2	2	2	2.5	3	3
			End Depth	3	3	3				4	
Analytic Method	CAS Number	Chemical Name	Unit								
8270D	129-00-0	Pyrene	µg/kg	--	--	--	--	--	--	--	--
8270D	191-24-2	Benzo(g,h,i)perylene	µg/kg	--	--	--	--	--	--	--	--
8270D	205-99-2	Benzo(b)fluoranthene	µg/kg	--	--	--	--	--	--	--	--
8270D	206-44-0	Fluoranthene	µg/kg	--	--	--	--	--	--	--	--
8270D	218-01-9	Chrysene	µg/kg	--	--	--	--	--	--	--	--
8270D	50-32-8	Benzo(a)pyrene	µg/kg	--	--	--	--	--	--	--	--
8270D	56-55-3	Benzo(a)anthracene	µg/kg	--	--	--	--	--	--	--	--
8270D	85-01-8	Phenanthrene	µg/kg	--	--	--	--	--	--	--	--
8270D SIM	110-91-8	Morpholine	µg/kg	--	--	--	22 U	--	--	--	21 U
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	19 U	18 U	12 J Z, C	12 J Z	19 U	19 U	18 U	19 U
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	19 U	18 U	19 UJ C	20 U	19 U	19 U	8.1 J Z	19 U
8270D SIM	120-12-7	Anthracene	µg/kg	1.8 U	1.7 U	1.4 J Z	1.8 U	1.7 U	1.8 U	1.7 U	1.8 U
8270D SIM	129-00-0	Pyrene	µg/kg	1.8 U	1.2 J Z	3.0	0.78 J Z	1.7 U	1.8 U	1.7 U	1.3 J Z
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	19 U	18 U	19 U	20 U	19 U	19 U	18 U	19 U
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	1.8 U	1.7 UJ FD	2.1	1.8 U	1.7 U	1.8 U	1.7 U	1.5 J Z
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	18 U	17 U	6.7 J Z	18 UJ L	18 U	18 U	17 U	18 UJ L
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	1.8 U	1.7 U	0.88 J Z	1.8 U	1.7 U	1.8 U	1.7 U	1.8 U
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	1.8 U	2.0	5.8 J C	0.73 J Z	1.7 U	1.8 U	1.7 U	1.9
8270D SIM	206-44-0	Fluoranthene	µg/kg	1.8 U	1.4 J Z	2.1	1.8 U	1.7 U	1.8 U	1.7 U	1.6 J Z
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	1.8 U	1.5 J Z	2.4	1.8 U	1.7 U	1.8 U	1.7 U	0.84 J Z
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.8 U	1.7 U	1.7 U	1.8 U	1.7 U	1.8 U	1.7 U	1.8 U
8270D SIM	218-01-9	Chrysene	µg/kg	1.8 U	2.4 J L	5.9	0.78 J Z	1.7 U	1.8 U	1.7 U	1.7 J Z
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	1.8 U	0.84 J Z	3.6	1.8 U	1.7 U	1.8 U	1.7 U	0.87 J Z
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	1.8 U	1.7 U	1.0 J Z	1.8 U	1.7 U	1.8 U	1.7 U	1.8 U
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	1.8 U	1.7 U	2.0	1.8 U	1.7 U	1.8 U	1.7 U	1.0 J Z
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.8 U	1.7 U	1.7 U	1.8 U	1.7 U	1.8 U	1.7 U	1.8 U
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.8 U	1.7 U	1.7 U	1.8 U	1.7 U	1.8 U	1.7 U	1.8 U
8270D SIM	84-66-2	Diethylphthalate	µg/kg	19 U	18 U	19 U	20 U	19 U	19 U	18 U	19 U
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	19 U	18 U	19 U	20 U	19 U	19 U	18 U	19 U
8270D SIM	85-01-8	Phenanthrene	µg/kg	1.8 U	0.70 J FD, Z	11	0.89 J Z	1.7 U	1.8 U	1.7 U	1.1 J Z
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	19 U	18 U	19 U	20 U	19 U	19 U	18 U	19 U
8270D SIM	86-73-7	Fluorene	µg/kg	1.8 U	1.7 U	1.7 U	1.8 U	1.7 U	1.8 U	1.7 U	1.8 U
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	1.8 U	1.7 U	2.8	1.8 U	1.7 U	1.8 U	1.7 U	0.94 J Z
8270D SIM	91-20-3	Naphthalene	µg/kg	1.8 U	1.7 U	0.69 J Z	0.98 J Z	1.7 U	1.8 U	1.7 U	1.2 J Z
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	1.8 U	1.7 U	2.4	1.1 J Z	1.7 U	1.8 U	1.7 U	1.5 J Z

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Trench samples collected at a discrete interval.

			Sample Name	SL-693-SA5B-TR-3.0	SL-699-SA5B-TR-3.0	SL-707-SA5B-TR-3.0	SL-636-SA5A-TR-3.5	SL-693-SA5B-TR-3.5	FDG2-SL-1174-SA5A-SB-4.0-5.0	FDG2-SL-584-SA5D-SB-4.0-5.0	FDG2-SL-585-SA5D-SB-4.0-5.0
			Sample Type	N	N	N	N	N	N	N	N
			Sample Date	05/28/2014	05/28/2014	05/27/2014	05/23/2014	05/27/2014	05/20/2014	05/21/2014	05/21/2014
			SDG	PH204	PH204	PH201	PH199	PH201	PH188	PH193	PH193
			Start Depth	3	3	3	3.5	3.5	4	4	4
			End Depth						5	5	5
Analytic Method	CAS Number	Chemical Name	Unit								
8270D	129-00-0	Pyrene	µg/kg	--	--	--	--	--	--	--	--
8270D	191-24-2	Benzo(g,h,i)perylene	µg/kg	--	--	--	--	--	--	--	--
8270D	205-99-2	Benzo(b)fluoranthene	µg/kg	--	--	--	--	--	--	--	--
8270D	206-44-0	Fluoranthene	µg/kg	--	--	--	--	--	--	--	--
8270D	218-01-9	Chrysene	µg/kg	--	--	--	--	--	--	--	--
8270D	50-32-8	Benzo(a)pyrene	µg/kg	--	--	--	--	--	--	--	--
8270D	56-55-3	Benzo(a)anthracene	µg/kg	--	--	--	--	--	--	--	--
8270D	85-01-8	Phenanthrene	µg/kg	--	--	--	--	--	--	--	--
8270D SIM	110-91-8	Morpholine	µg/kg	--	--	--	--	--	--	--	--
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	19 U	19 U	19 U	19 U	19 U	19 U	19 U	21 U
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	19 U	19 U	19 U	19 U	19 U	19 U	19 U	21 U
8270D SIM	120-12-7	Anthracene	µg/kg	2.0	7.6	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U
8270D SIM	129-00-0	Pyrene	µg/kg	10	23	1.7 U	1.8 U	1.8 U	0.89 J Z	1.8 U	1.9 U
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	19 U	19 U	19 U	19 U	19 U	19 U	19 U	21 U
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	2.4	3.3	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	18 UJ L	4.1 J L, Z	18 UJ L	18 UJ L	18 UJ L	18 U	18 U	19 U
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	2.2	2.1	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	6.7	9.4	1.7 U	1.8 U	1.8 U	0.93 J Z	1.8 U	1.9 U
8270D SIM	206-44-0	Fluoranthene	µg/kg	11	19	1.7 U	1.8 U	1.8 U	1.7 J Z	1.8 U	1.9 U
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	2.3	1.8 U	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.7 U	2.5	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U
8270D SIM	218-01-9	Chrysene	µg/kg	6.4	12	1.7 U	1.8 U	1.8 U	1.2 J Z	1.8 U	1.9 U
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	5.0	8.0	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	0.87 J Z	0.88 J Z	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	5.7	14	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.7 U	1.8 U	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.2 J Z	1.6 J Z	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U
8270D SIM	84-66-2	Diethylphthalate	µg/kg	19 U	19 U	19 U	19 U	19 U	19 U	19 U	21 U
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	19 U	19 U	19 U	19 U	19 U	19 U	19 U	21 U
8270D SIM	85-01-8	Phenanthrene	µg/kg	8.4	180	1.7 U	1.8 U	1.8 U	1.7 J FD, Z	1.8 U	1.9 U
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	19 U	19 U	19 U	19 U	19 U	19 U	19 U	21 U
8270D SIM	86-73-7	Fluorene	µg/kg	1.7 U	2.1	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	1.7 U	73	1.0 J Z	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U
8270D SIM	91-20-3	Naphthalene	µg/kg	1.7 U	15	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	1.7 U	59	1.3 J Z	1.8 U	1.8 U	1.8 UJ FD	1.8 U	1.9 U

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-874-SA5A-SB-4.0-5.0	FDG2-SL-876-SA5A-SB-4.0-5.0	FDG2-SL-878-SA5A-SB-4.0-5.0	FDG-SL-748-SA5C-SB-4.0-5.0	FDG-SL-757-SA5C-SB-4.0-5.0	FDG-SL-841-SA5B-SB-4.0-5.0	FDG-SL-842-SA5B-SB-4.0-5.0
				Sample Type	N	N	N	N	N	N	N
				Sample Date	05/20/2014	06/16/2014	06/11/2014	05/12/2014	05/14/2014	05/14/2014	05/14/2014
				SDG	PH188	PH234	PH229	PH175	PH177	PH177	PH177
				Start Depth	4	4	4	4	4	4	4
				End Depth	5	5	5	5	5	5	5
Analytic Method	CAS Number	Chemical Name	Unit								
8270D	129-00-0	Pyrene	µg/kg	--	--	--	--	--	--	--	--
8270D	191-24-2	Benzo(g,h,i)perylene	µg/kg	--	--	--	--	--	--	--	--
8270D	205-99-2	Benzo(b)fluoranthene	µg/kg	--	--	--	--	--	--	--	--
8270D	206-44-0	Fluoranthene	µg/kg	--	--	--	--	--	--	--	--
8270D	218-01-9	Chrysene	µg/kg	--	--	--	--	--	--	--	--
8270D	50-32-8	Benzo(a)pyrene	µg/kg	--	--	--	--	--	--	--	--
8270D	56-55-3	Benzo(a)anthracene	µg/kg	--	--	--	--	--	--	--	--
8270D	85-01-8	Phenanthrene	µg/kg	--	--	--	--	--	--	--	--
8270D SIM	110-91-8	Morpholine	µg/kg	--	--	--	--	--	--	--	--
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	19 U	19 U	10 J Z	87	12 J Z	8.2 J Z	9.4 J Z	
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	19 U	19 U	19 U	19 U	20 U	20 U	19 U	
8270D SIM	120-12-7	Anthracene	µg/kg	1.8 U	1.7 U	1.7 U	1.8 U	0.54 J Z	1.8 U	1.8 U	
8270D SIM	129-00-0	Pyrene	µg/kg	0.91 J Z	1.7 U	0.75 J Z	1.8 U	3.7	1.8 U	0.81 J Z	
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	19 U	19 U	19 U	19 U	20 U	20 U	19 U	
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	1.8 U	1.7 U	1.7 U	1.8 U	2.0	1.8 U	1.8 U	
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	18 U	18 U	17 U	18 U	5.2 J Z	19 U	18 U	
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	1.8 U	1.7 U	1.7 U	1.8 U	1.3 J Z	1.8 U	1.8 U	
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	1.2 J Z	1.7 U	0.88 J Z	1.8 U	6.0	1.8 U	1.8 U	
8270D SIM	206-44-0	Fluoranthene	µg/kg	1.8	1.7 U	0.95 J Z	1.8 U	3.8	1.8 U	0.95 J Z	
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	1.8 U	1.7 U	3.8	1.8 U	2.2	1.8 U	1.8 U	
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.8 U	1.7 U	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	
8270D SIM	218-01-9	Chrysene	µg/kg	1.4 J Z	0.47 J L, Z	1.1 J Z	1.8 U	4.6	0.52 J Z	0.65 J Z	
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	1.8 U	1.7 U	1.7 U	1.8 U	3.0	1.8 U	1.8 U	
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	1.8 U	1.7 U	1.7 U	1.8 U	0.81 J Z	1.8 U	1.8 U	
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	1.8 U	1.7 U	1.7 U	1.8 U	2.2	1.8 U	1.8 U	
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.8 U	1.7 U	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.8 U	1.7 U	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	
8270D SIM	84-66-2	Diethylphthalate	µg/kg	19 U	19 U	19 U	19 U	20 U	20 U	19 U	
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	19 U	19 U	19 U	19 U	20 U	20 U	19 U	
8270D SIM	85-01-8	Phenanthrene	µg/kg	2.9 J FD	1.7 U	0.78 J Z	1.8 U	1.9	1.8 U	0.71 J Z	
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	19 U	19 U	19 U	19 U	20 U	20 U	19 U	
8270D SIM	86-73-7	Fluorene	µg/kg	1.8 U	1.7 U	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	1.8 U	1.7 U	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	
8270D SIM	91-20-3	Naphthalene	µg/kg	1.8 U	1.7 U	1.7 U	1.8 U	1.8 U	1.0 J Z	1.8 U	
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	1.0 J FD, Z	1.7 U	1.7 U	1.8 U	1.8 U	1.8 U	0.87 J Z	

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Trench samples collected at a discrete interval.

				Sample Name	SL-838-SA5B-SB-4.0-5.0	SL-839-SA5B-SB-4.0-5.0	SL-840-SA5B-SB-4.0-5.0	SL-843-SA5B-SB-4.0-5.0	SL-503-SA5C-TR-5.0	SL-534-SA8-TR-5.0	SL-548-SA8-TR-5.0	SL-605-SA5C-TR-5.0	SL-611-SA8-TR-5.0
				Sample Type	N	N	N	N	N	N	N	N	N
				Sample Date	01/13/2014	01/14/2014	01/13/2014	01/14/2014	05/29/2014	05/19/2014	05/19/2014	05/29/2014	05/20/2014
				SDG	PH158	PH159	PH158	PH159	PH207	PH185	PH185	PH207	PH189
				Start Depth	4	4	4	4	5	5	5	5	5
				End Depth	5	5	5	5					
Analytic Method	CAS Number	Chemical Name	Unit										
8270D	129-00-0	Pyrene	µg/kg	--	--	--	--	--	--	--	--	--	--
8270D	191-24-2	Benzo(g,h,i)perylene	µg/kg	--	--	--	--	--	--	--	--	--	--
8270D	205-99-2	Benzo(b)fluoranthene	µg/kg	--	--	--	--	--	--	--	--	--	--
8270D	206-44-0	Fluoranthene	µg/kg	--	--	--	--	--	--	--	--	--	--
8270D	218-01-9	Chrysene	µg/kg	--	--	--	--	--	--	--	--	--	--
8270D	50-32-8	Benzo(a)pyrene	µg/kg	--	--	--	--	--	--	--	--	--	--
8270D	56-55-3	Benzo(a)anthracene	µg/kg	--	--	--	--	--	--	--	--	--	--
8270D	85-01-8	Phenanthrene	µg/kg	--	--	--	--	--	--	--	--	--	--
8270D SIM	110-91-8	Morpholine	µg/kg	--	--	--	--	--	--	--	--	--	--
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	19 U	20 U	20 U	20 U	20 U	19 U	21 U	19 U	20 U	
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	19 U	20 U	20 U	20 U	20 U	19 U	21 U	19 U	20 U	
8270D SIM	120-12-7	Anthracene	µg/kg	0.49 J FD, Z	0.75 J Z	1.8 U	1.9 U	0.90 J Z	1.8 U	1.9 U	0.59 J Z	1.8 U	
8270D SIM	129-00-0	Pyrene	µg/kg	4.7 J FD	7.0 J Q	0.99 J Z	1.4 J Z	2.5	1.8 U	1.9 U	1.0 J Z	1.8 U	
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	19 U	20 U	20 U	20 U	20 U	19 U	21 U	19 U	20 U	
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	1.9 J FD	0.96 J FD, Z	1.8 U	1.9 U	1.9 U	1.8 U	1.9 U	1.1 J Z	1.8 U	
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	18 U	19 U	18 U	19 U	19 UJ L	18 U	20 U	18 UJ L	19 U	
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	1.8 J FD	1.1 J FD, Z	1.8 U	1.9 U	1.9 U	1.8 U	1.9 U	1.8 U	1.8 U	
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	5.7 J FD	6.0 J FD	1.8 U	1.1 J Z	1.9 U	1.8 UJ C	1.9 UJ C	0.72 J Z	1.8 U	
8270D SIM	206-44-0	Fluoranthene	µg/kg	3.7 J FD	5.8	0.93 J Z	1.1 J Z	3.4	1.8 U	1.9 U	1.1 J Z	1.8 U	
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	2.2 J FD	2.5 J FD	1.8 U	1.9 U	1.9 U	1.8 U	1.9 U	1.8 U	1.8 U	
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.8 U	1.8 U	1.8 U	1.9 U	1.9 U	1.8 U	1.9 U	1.8 U	1.8 U	
8270D SIM	218-01-9	Chrysene	µg/kg	5.0 J FD	14 J FD	0.58 J Z	1.6 J Z	0.76 J Z	1.8 U	1.9 U	1.6 J Z	1.8 U	
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	3.5 J FD	2.4	1.8 U	0.95 J Z	1.9 U	1.8 U	1.9 U	1.8 U	1.8 U	
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	1.8 U	1.8 U	1.8 U	1.9 U	1.9 U	1.8 U	1.9 U	1.8 U	1.8 U	
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	3.5 J FD	4.1	1.8 U	1.9 U	0.93 J Z	1.8 U	1.9 U	1.8 U	1.8 U	
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.8 U	1.8 U	1.8 U	1.9 U	4.6	1.8 U	1.9 U	1.8 U	1.8 U	
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.8 U	1.8 U	1.8 U	1.9 U	1.9 U	1.8 U	1.9 U	1.8 U	1.8 U	
8270D SIM	84-66-2	Diethylphthalate	µg/kg	19 U	20 U	20 U	20 U	20 U	19 U	21 U	19 U	20 U	
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	19 U	20 U	20 U	20 U	20 U	19 U	21 U	19 U	20 U	
8270D SIM	85-01-8	Phenanthrene	µg/kg	1.4 J FD, Z	2.1	1.8 U	1.1 J Z	5.0	1.8 U	1.9 U	1.2 J Z	1.8 U	
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	19 U	20 U	20 U	20 U	20 U	19 U	21 U	19 U	20 U	
8270D SIM	86-73-7	Fluorene	µg/kg	1.8 U	1.8 U	1.8 U	1.9 U	0.90 J Z	1.8 U	1.9 U	1.8 U	1.8 U	
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	1.8 U	1.8 UJ FD	1.8 U	1.9 U	1.9 U	1.8 U	1.9 U	1.8 U	1.8 U	
8270D SIM	91-20-3	Naphthalene	µg/kg	1.8 U	0.76 J FD, Z	1.8 U	0.91 J Z	1.4 J Z	1.8 U	1.9 U	1.0 J Z	1.8 U	
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	1.8 U	1.8 UJ FD	1.8 U	1.9 U	1.9 U	1.8 U	1.9 U	0.74 J Z	1.8 U	

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Trench samples collected at a discrete interval.

				Sample Name	SL-646-SA5C-TR-5.0	SL-651-SA5C-TR-5.0	SL-653-SA5C-TR-5.0	SL-655-SA5C-TR-5.0	SL-686-SA6-TR-5.0	SL-693-SA5B-TR-5.0	SL-848-SA8-TR-5.0	SL-951-SA5C-TR-5.0	SL-587-SA5A-TR-5.5	SL-887-SA5A-TR-5.5
				Sample Type	N	N	N	N	N	N	FD	FD	N	N
				Sample Date	06/04/2014	05/30/2014	06/02/2014	06/04/2014	05/21/2014	05/27/2014	05/19/2014	05/30/2014	05/22/2014	05/22/2014
				SDG	PH217	PH209	PH212	PH217	PH192	PH201	PH185	PH209	PH195	PH195
				Start Depth	5	5	5	5	5	5	5	5	5.5	5.5
				End Depth										
Analytic Method	CAS Number	Chemical Name	Unit											
8270D	129-00-0	Pyrene	µg/kg	--	4 J Z	--	--	--	--	--	--	--	--	--
8270D	191-24-2	Benzo(g,h,i)perylene	µg/kg	--	--	--	--	--	--	--	--	--	--	--
8270D	205-99-2	Benzo(b)fluoranthene	µg/kg	--	5 J Z	--	--	--	--	--	--	5 J Z	--	--
8270D	206-44-0	Fluoranthene	µg/kg	--	4 J Z	--	--	--	--	--	--	--	--	--
8270D	218-01-9	Chrysene	µg/kg	--	--	--	--	--	--	--	--	4 J Z	--	--
8270D	50-32-8	Benzo(a)pyrene	µg/kg	--	4 J Z	--	--	--	--	--	--	4 J Z	--	--
8270D	56-55-3	Benzo(a)anthracene	µg/kg	--	4 J Z	--	--	--	--	--	--	--	--	--
8270D	85-01-8	Phenanthrene	µg/kg	--	4 J Z	--	--	--	--	--	--	--	--	--
8270D SIM	110-91-8	Morpholine	µg/kg	21 U	--	--	21 U	--	--	--	--	--	--	--
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	19 U	19 U	19 U	19 U	19 U	19 U	20 U	19 U	20 U	20 U	
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	19 U	19 U	19 U	19 U	19 U	19 U	20 U	19 U	20 U	20 U	
8270D SIM	120-12-7	Anthracene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.9 U	1.7 U	1.9 U	1.9 U	
8270D SIM	129-00-0	Pyrene	µg/kg	1.7 U	--	1.7 U	1.7 U	1.8 U	0.71 J Z	1.9 U	1.7 U	1.9 U	1.9 U	
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	19 U	19 U	19 U	19 U	19 U	19 U	20 U	19 U	20 U	20 U	
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.9 U	1.7 U	1.9 U	1.9 U	
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	18 U	18 UJ L	17 UJ L	18 U	18 U	18 UJ L	19 U	18 UJ L	19 UJ L	19 UJ L	
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.9 U	1.7 U	1.9 U	1.9 U	
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	1.7 U	--	1.7 UJ C	1.7 U	1.8 U	1.8 U	1.9 UJ C	--	1.9 U	1.9 U	
8270D SIM	206-44-0	Fluoranthene	µg/kg	1.7 U	--	1.7 U	1.7 U	1.8 U	0.82 J Z	1.9 U	1.7 U	1.9 U	1.9 U	
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.9 U	1.7 U	1.9 U	1.9 U	
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.9 U	1.7 U	1.9 U	1.9 U	
8270D SIM	218-01-9	Chrysene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	0.68 J Z	1.9 U	--	1.9 U	1.9 U	
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	1.7 U	--	1.7 U	1.7 U	1.8 U	1.8 U	1.9 U	--	1.9 U	1.9 U	
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.9 U	1.7 U	1.9 U	1.9 U	
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	1.7 U	--	1.7 U	1.7 U	1.8 U	1.8 U	1.9 U	1.7 U	1.9 U	1.9 U	
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.7 UJ L	1.7 U	1.7 U	1.7 UJ L	1.8 U	1.8 U	1.9 U	1.7 U	1.9 U	1.9 U	
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.9 U	1.7 U	1.9 U	1.9 U	
8270D SIM	84-66-2	Diethylphthalate	µg/kg	19 U	19 U	19 U	19 U	19 U	19 U	20 U	19 U	20 U	20 U	
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	19 U	19 U	19 U	19 U	19 U	19 U	20 U	19 U	20 U	20 U	
8270D SIM	85-01-8	Phenanthrene	µg/kg	1.7 U	--	1.7 U	1.7 U	1.8 U	1.8 U	1.9 U	1.7 U	1.9 U	1.9 U	
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	19 U	19 U	19 U	19 U	19 U	19 U	20 U	19 U	20 U	20 U	
8270D SIM	86-73-7	Fluorene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.9 U	1.7 U	1.9 U	1.9 U	
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.9 U	1.7 U	1.9 U	1.9 U	
8270D SIM	91-20-3	Naphthalene	µg/kg	1.7 U	1.7 UJ FD	1.7 U	1.7 U	1.8 U	1.8 U	1.9 U	0.89 J FD, Z	1.9 U	1.9 U	
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	1.7 U	0.83 J Z	1.7 U	1.7 U	1.8 U	1.8 U	1.9 U	0.81 J Z	1.9 U	1.9 U	

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Trench samples collected at a discrete interval.

				Sample Name	SL-570-SA6-TR-6.0	SL-730-SA5A-TR-6.0	FDG2-SL-631-SA8-SB-7.0-8.0	SL-840-SA5B-SB-7.0-8.0	SL-843-SA5B-SB-7.0-8.0	SL-503-SA5C-TR-7.5	SL-636-SA5A-TR-7.5	FDG-SL-757-SA5C-SB-8.0-9.0	SL-699-SA5B-TR-8.0
				Sample Type	N	N	N	N	N	N	N	N	N
				Sample Date	05/20/2014	05/22/2014	06/05/2014	01/13/2014	01/14/2014	05/29/2014	05/23/2014	05/14/2014	05/28/2014
				SDG	PH189	PH195	PH220	PH158	PH159	PH207	PH199	PH177	PH204
				Start Depth	6	6	7	7	7	7.5	7.5	8	8
				End Depth			8	8	8			9	
Analytic Method	CAS Number	Chemical Name	Unit										
8270D	129-00-0	Pyrene	µg/kg	--	--	--	--	--	--	--	--	--	--
8270D	191-24-2	Benzo(g,h,i)perylene	µg/kg	--	--	--	--	--	--	--	--	--	--
8270D	205-99-2	Benzo(b)fluoranthene	µg/kg	--	--	--	--	--	--	--	--	--	--
8270D	206-44-0	Fluoranthene	µg/kg	--	--	--	--	--	--	--	--	--	--
8270D	218-01-9	Chrysene	µg/kg	--	--	--	--	--	--	--	--	--	--
8270D	50-32-8	Benzo(a)pyrene	µg/kg	--	--	--	--	--	--	--	--	--	--
8270D	56-55-3	Benzo(a)anthracene	µg/kg	--	--	--	--	--	--	--	--	--	--
8270D	85-01-8	Phenanthrene	µg/kg	--	--	--	--	--	--	--	--	--	--
8270D SIM	110-91-8	Morpholine	µg/kg	--	--	--	--	--	--	--	--	--	--
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	19 U	20 U	45	20 U	20 U	19 U	19 U	8.2 J Z	19 U	
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	19 U	20 U	22 U	20 U	20 U	19 U	19 U	19 U	19 U	
8270D SIM	120-12-7	Anthracene	µg/kg	1.8 U	1.8 U	2.0 U	1.9 U	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	
8270D SIM	129-00-0	Pyrene	µg/kg	1.8 U	1.8 U	2.0 U	1.9 U	2.9	1.8 U	1.8 U	1.8 U	1.8 U	
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	19 U	20 U	22 U	20 U	20 U	19 U	19 U	19 U	19 U	
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	1.8 U	1.8 U	2.0 U	1.9 U	0.74 J Z	1.8 U	1.8 U	1.8 U	1.8 U	
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	18 U	18 UJ L	20 U	19 U	19 U	18 UJ L	18 UJ L	18 U	18 UJ L	
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	1.8 U	1.8 U	2.0 U	1.9 U	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	1.8 U	1.8 U	2.0 U	1.9 U	2.2	1.8 U	1.8 U	1.8 U	1.8 U	
8270D SIM	206-44-0	Fluoranthene	µg/kg	1.8 U	1.8 U	2.0 U	1.9 U	2.2	1.8 U	1.8 U	1.8 U	1.8 U	
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	1.8 U	1.8 U	2.0 U	1.9 U	1.3 J Z	1.8 U	1.8 U	1.8 U	1.8 U	
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.8 U	1.8 U	2.0 U	1.9 U	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	
8270D SIM	218-01-9	Chrysene	µg/kg	1.8 U	1.8 U	0.55 J Z	1.9 U	2.3	1.8 U	1.8 U	1.8 U	1.8 U	
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	1.8 U	1.8 U	2.0 U	1.9 U	1.7 J Z	1.8 U	1.8 U	1.8 U	1.8 U	
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	1.8 U	1.8 U	2.0 U	1.9 U	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	1.8 U	1.8 U	2.0 U	1.9 U	1.4 J Z	1.8 U	1.8 U	1.8 U	1.8 U	
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.8 U	1.8 U	2.0 UJ L	1.9 U	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.8 U	1.8 U	2.0 U	1.9 U	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	
8270D SIM	84-66-2	Diethylphthalate	µg/kg	19 U	20 U	22 U	20 U	20 U	19 U	19 U	19 U	19 U	
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	19 U	20 U	22 U	20 U	20 U	19 U	19 U	19 U	19 U	
8270D SIM	85-01-8	Phenanthrene	µg/kg	1.8 U	1.8 U	2.0 U	1.9 U	1.7 J Z	1.8 U	1.8 U	1.8 U	1.8 U	
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	19 U	20 U	22 U	20 U	20 U	19 U	19 U	19 U	19 U	
8270D SIM	86-73-7	Fluorene	µg/kg	1.8 U	1.8 U	2.0 U	1.9 U	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	1.8 U	1.8 U	2.0 U	1.9	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	
8270D SIM	91-20-3	Naphthalene	µg/kg	1.8 U	1.8 U	2.0 U	6.4	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	1.8 U	1.8 U	2.0 U	3.4	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	

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Z, etc. – Specific description qualifiers that are applied during validation. Definitions are provided at the beginning of Appendix A. The letters can vary and there can be more than one letter.

Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-581-NBZ-SB-9.0-10.0	FDG2-SL-623-SA8-SB-9.0-10.0	FDG2-SL-628-SA8-SB-9.0-10.0	FDG-SL-841-SA5B-SB-9.0-10.0	SL-839-SA5B-SB-9.0-10.0	SL-548-SA8-TR-10.0	SL-605-SA5C-TR-10.0	SL-651-SA5C-TR-10.0
				Sample Type	N	N	N	N	N	N	N	N
				Sample Date	05/22/2014	05/21/2014	05/22/2014	05/14/2014	01/14/2014	05/19/2014	05/29/2014	05/30/2014
				SDG	PH196	PH193	PH196	PH177	PH159	PH185	PH207	PH209
				Start Depth	9	9	9	9	9	10	10	10
				End Depth	10	10	10	10	10			
Analytic Method	CAS Number	Chemical Name	Unit									
8270D	129-00-0	Pyrene	µg/kg	--	--	--	--	--	--	--	--	
8270D	191-24-2	Benzo(g,h,i)perylene	µg/kg	--	--	--	--	--	--	--	--	
8270D	205-99-2	Benzo(b)fluoranthene	µg/kg	--	--	--	--	--	--	--	5 J Z	
8270D	206-44-0	Fluoranthene	µg/kg	--	--	--	--	--	--	--	--	
8270D	218-01-9	Chrysene	µg/kg	--	--	--	--	--	--	--	--	
8270D	50-32-8	Benzo(a)pyrene	µg/kg	--	--	--	--	--	--	--	4 J Z	
8270D	56-55-3	Benzo(a)anthracene	µg/kg	--	--	--	--	--	--	--	--	
8270D	85-01-8	Phenanthrene	µg/kg	--	--	--	--	--	--	--	--	
8270D SIM	110-91-8	Morpholine	µg/kg	--	--	--	--	--	--	--	--	
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	20 U	11 J Z	18 J Z	8.4 J Z	22 J L	21 U	20 U	19 U	
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	20 U	19 U	19 U	20 U	20 U	21 U	20 U	19 U	
8270D SIM	120-12-7	Anthracene	µg/kg	1.9 U	1.8 U	1.8 U	1.8 U	1.6 J Z	1.9 U	1.3 J Z	1.8 U	
8270D SIM	129-00-0	Pyrene	µg/kg	1.9 U	1.8 U	1.8 U	1.8 U	29	1.9 U	2.8	1.8 U	
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	20 U	19 U	19 U	20 U	20 U	21 U	20 U	19 U	
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	1.9 U	1.8 U	1.8 U	1.8 U	1.5 J Z	1.9 U	1.8 U	1.8 U	
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	19 UJ L	18 U	18 UJ L	19 U	4.7 J Z	19 U	19 UJ L	18 UJ L	
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	1.9 U	1.8 U	1.8 U	1.8 U	1.7 J Z	1.9 U	1.8 U	1.8 U	
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	1.9 U	1.8 U	1.8 U	0.85 J Z	10	1.9 UJ C	1.8 U	--	
8270D SIM	206-44-0	Fluoranthene	µg/kg	1.9 U	1.8 U	1.8 U	1.8 U	23	1.9 U	4.1	1.8 U	
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	1.9 U	1.8 U	1.8 U	1.8 U	5.5	1.9 U	1.8 U	1.8 U	
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	
8270D SIM	218-01-9	Chrysene	µg/kg	1.9 U	1.8 U	1.8 U	1.8 U	12	1.9 U	0.87 J Z	1.8 U	
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	1.9 U	1.8 U	1.8 U	1.8 U	6.3	1.9 U	1.8 U	--	
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	1.9 U	1.8 U	1.8 U	1.8 U	9.8	1.9 U	1.0 J Z	1.8 U	
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	
8270D SIM	84-66-2	Diethylphthalate	µg/kg	20 U	19 U	19 U	20 U	20 U	21 U	20 U	19 U	
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	20 U	19 U	19 U	20 U	20 U	21 U	20 U	19 U	
8270D SIM	85-01-8	Phenanthrene	µg/kg	1.9 U	1.8 U	1.8 U	0.78 J Z	5.5	1.9 U	4.4	1.8 U	
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	20 U	19 U	19 U	20 U	20 U	21 U	20 U	19 U	
8270D SIM	86-73-7	Fluorene	µg/kg	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U	0.79 J Z	1.8 U	
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	
8270D SIM	91-20-3	Naphthalene	µg/kg	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U	0.80 J Z	1.8 U	
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	1.9 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	

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Trench samples collected at a discrete interval.

			Sample Name	SL-653-SA5C-TR-10.0	SL-611-SA8-TR-10.5	SL-529-SA5B-TR-11.0	SL-686-SA6-TR-11.0	FDG2-SL-874-SA5A-SB-12.0-13.0	FDG2-SL-581-NBZ-SB-13.0-14.0	FDG2-SL-623-SA8-SB-14.0-15.0	FDG2-SL-628-SA8-SB-14.0-15.0
			Sample Type	N	N	N	N	N	N	N	N
			Sample Date	06/02/2014	05/20/2014	05/28/2014	05/21/2014	05/20/2014	05/22/2014	05/21/2014	05/22/2014
			SDG	PH212	PH189	PH204	PH192	PH188	PH196	PH193	PH196
			Start Depth	10	10.5	11	11	12	13	14	14
			End Depth					13	14	15	15
Analytic Method	CAS Number	Chemical Name	Unit								
8270D	129-00-0	Pyrene	µg/kg	--	--	--	--	--	--	--	--
8270D	191-24-2	Benzo(g,h,i)perylene	µg/kg	--	--	--	--	--	--	--	--
8270D	205-99-2	Benzo(b)fluoranthene	µg/kg	--	--	--	--	--	--	--	--
8270D	206-44-0	Fluoranthene	µg/kg	--	--	--	--	--	--	--	--
8270D	218-01-9	Chrysene	µg/kg	--	--	--	--	--	--	--	--
8270D	50-32-8	Benzo(a)pyrene	µg/kg	--	--	--	--	--	--	--	--
8270D	56-55-3	Benzo(a)anthracene	µg/kg	--	--	--	--	--	--	--	--
8270D	85-01-8	Phenanthrene	µg/kg	--	--	--	--	--	--	--	--
8270D SIM	110-91-8	Morpholine	µg/kg	--	--	22 U	--	--	--	--	--
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	19 U	20 U	12 J Z	19 U	19 U	20 U	19 U	14 J Z
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	19 U	20 U	20 U	19 U	19 U	20 U	19 U	19 U
8270D SIM	120-12-7	Anthracene	µg/kg	1.7 U	1.8 U	1.8 U	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U
8270D SIM	129-00-0	Pyrene	µg/kg	1.7 U	1.8 U	1.4 J Z	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	19 U	20 U	20 U	19 U	19 U	20 U	19 U	19 U
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	1.7 U	1.8 U	0.80 J Z	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	18 UJ L	19 U	19 UJ L	18 U	18 U	18 UJ L	18 U	18 UJ L
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	1.7 U	1.8 U	1.8 U	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	1.7 UJ C	1.8 U	1.5 J Z	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U
8270D SIM	206-44-0	Fluoranthene	µg/kg	1.7 U	1.8 U	1.5 J Z	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	1.7 U	1.8 U	0.75 J Z	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.7 U	1.8 U	1.8 U	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U
8270D SIM	218-01-9	Chrysene	µg/kg	1.7 U	1.8 U	1.4 J Z	1.7 U	1.8 U	0.38 J Z	1.8 U	1.8 U
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	1.7 U	1.8 U	1.1 J Z	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	1.7 U	1.8 U	1.8 U	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	1.7 U	1.8 U	1.3 J Z	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.7 U	1.8 U	1.8 U	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.7 U	1.8 U	1.8 U	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U
8270D SIM	84-66-2	Diethylphthalate	µg/kg	19 U	20 U	20 U	19 U	19 U	20 U	19 U	19 U
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	19 U	20 U	20 U	19 U	19 U	20 U	19 U	19 U
8270D SIM	85-01-8	Phenanthrene	µg/kg	1.7 U	1.8 U	0.99 J Z	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	19 U	20 U	20 U	19 U	19 U	20 U	19 U	19 U
8270D SIM	86-73-7	Fluorene	µg/kg	1.7 U	1.8 U	1.8 U	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	1.7 U	1.8 U	1.5 J Z	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U
8270D SIM	91-20-3	Naphthalene	µg/kg	1.7 U	1.8 U	1.0 J Z	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	1.7 U	1.8 U	1.3 J Z	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U

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Trench samples collected at a discrete interval.

				Sample Name	FDG-SL-756-SA5C-SB-15.0-16.0	FDG-SL-836-SA5B-SB-15.0-16.0	SL-651-SA5C-TR-15.0	SL-653-SA5C-TR-15.0	SL-839-SA5B-SB-15.5-16.5	FDG2-SL-623-SA8-SB-19.0-20.0	FDG-SL-836-SA5B-SB-19.0-20.0
				Sample Type	N	N	N	N	N	N	N
				Sample Date	05/13/2014	05/13/2014	05/30/2014	06/02/2014	01/14/2014	05/21/2014	05/13/2014
				SDG	PH176	PH176	PH209	PH212	PH159	PH193	PH176
				Start Depth	15	15	15	15	15.5	19	19
				End Depth	16	16			16.5	20	20
Analytic Method	CAS Number	Chemical Name	Unit								
8270D	129-00-0	Pyrene	µg/kg	--	--	--	--	--	--	--	
8270D	191-24-2	Benzo(g,h,i)perylene	µg/kg	--	--	--	--	--	--	--	
8270D	205-99-2	Benzo(b)fluoranthene	µg/kg	--	--	4 J Z	--	--	--	--	
8270D	206-44-0	Fluoranthene	µg/kg	--	--	--	--	--	--	--	
8270D	218-01-9	Chrysene	µg/kg	--	--	--	--	--	--	--	
8270D	50-32-8	Benzo(a)pyrene	µg/kg	--	--	4 J Z	--	--	--	--	
8270D	56-55-3	Benzo(a)anthracene	µg/kg	--	--	--	--	--	--	--	
8270D	85-01-8	Phenanthrene	µg/kg	--	--	--	--	--	--	--	
8270D SIM	110-91-8	Morpholine	µg/kg	--	--	--	--	--	--	--	
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	14 J Z	10 J Z	19 U	19 U	21 U	19 U	12 J Z	
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	19 U	21 U	19 U	19 U	21 U	19 U	19 U	
8270D SIM	120-12-7	Anthracene	µg/kg	1.8 U	2.0 U	1.8 U	1.7 U	130	1.7 U	2.1	
8270D SIM	129-00-0	Pyrene	µg/kg	0.94 J Z	2.0 U	1.8 U	1.7 U	550	1.7 U	9.8	
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	19 U	21 U	19 U	19 U	21 U	19 U	19 U	
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	1.8 U	2.0 U	1.8 U	1.7 U	11	1.7 U	1.7 J Z	
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	18 U	20 U	18 UJ L	18 UJ L	31	18 U	5.6 J Z	
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	1.8 U	2.0 U	1.8 U	1.7 U	12	1.7 U	0.95 J Z	
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	1.8 U	2.0 U	--	1.7 UJ C	83	1.7 U	4.9	
8270D SIM	206-44-0	Fluoranthene	µg/kg	0.88 J Z	2.0 U	1.8 U	1.7 U	470	1.7 U	6.1	
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	1.8 U	2.0 U	1.8 U	1.7 U	43	1.7 U	5.3	
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.8 U	2.0 U	1.8 U	1.7 U	1.9 U	1.7 U	0.35 J Z	
8270D SIM	218-01-9	Chrysene	µg/kg	1.8 U	2.0 U	1.8 U	0.62 J Z	100	1.7 U	11	
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	1.8 U	2.0 U	--	1.7 U	48	1.7 U	5.7	
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	1.8 U	2.0 U	1.8 U	1.7 U	4.3	1.7 U	0.99 J Z	
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	1.8 U	2.0 U	1.8 U	1.7 U	110	1.7 U	5.0	
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.8 U	2.0 U	1.8 U	1.7 U	1.9 U	1.7 U	1.8 U	
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.8 U	2.0 U	1.8 U	1.7 U	29	1.7 U	2.0	
8270D SIM	84-66-2	Diethylphthalate	µg/kg	19 U	21 U	19 U	19 U	21 U	19 U	19 U	
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	19 U	21 U	19 U	19 U	21 U	19 U	19 U	
8270D SIM	85-01-8	Phenanthrene	µg/kg	1.1 J Z	0.94 J Z	1.8 U	1.7 U	570	1.7 U	16	
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	19 U	21 U	19 U	19 U	21 U	19 U	6.4 J Z	
8270D SIM	86-73-7	Fluorene	µg/kg	1.8 U	2.0 U	1.8 U	1.7 U	19	1.7 U	3.9	
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	1.8 U	1.8 J Z	1.8 U	1.7 U	0.87 J Z	1.7 U	4.7	
8270D SIM	91-20-3	Naphthalene	µg/kg	1.8 U	2.7	1.8 U	1.7 U	1.1 J Z	1.7 U	1.8	
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	1.8 U	3.0	1.8 U	1.7 U	1.2 J Z	1.7 U	5.9	

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-558-NBZ-SB-0.0-0.5	FDG2-SL-559-NBZ-SB-0.0-0.5	FDG2-SL-560-NBZ-SB-0.0-0.5	FDG2-SL-561-NBZ-SB-0.0-0.5	FDG2-SL-562-NBZ-SB-0.0-0.5	FDG2-SL-563-NBZ-SB-0.0-0.5	FDG2-SL-564-NBZ-SB-0.0-0.5
				Sample Type	N	N	N	N	N	N	N
				Sample Date	06/09/2014	06/09/2014	06/11/2014	05/23/2014	06/12/2014	06/12/2014	06/10/2014
				SDG	PH224	PH224	PH229	PH197	PH231	PH231	PH227
				Start Depth	0	0	0	0	0	0	0
				End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit								
8082A	11096-82-5	Aroclor 1260	µg/kg	17 U	17 U	17 U	17 U	21 U	17 U	17 U
8082A	11097-69-1	Aroclor 1254	µg/kg	17 U	17 U	8.9 J Z	17 U	21 U	17 U	17 U
8082A	11100-14-4	Aroclor 1268	µg/kg	17 U	17 U	17 U	17 U	21 U	17 U	17 U
8082A	11104-28-2	Aroclor 1221	µg/kg	17 U	17 U	17 U	17 U	21 U	17 U	17 U
8082A	11126-42-4	Aroclor 5460	µg/kg	33 U	33 U	34 U	33 U	41 U	34 U	33 U
8082A	11141-16-5	Aroclor 1232	µg/kg	17 U	17 U	17 U	17 U	21 U	17 U	17 U
8082A	12642-23-8	Aroclor 5442	µg/kg	33 U	33 U	34 U	33 U	41 U	34 U	33 U
8082A	12672-29-6	Aroclor 1248	µg/kg	17 U	17 U	17 U	17 U	21 U	17 U	17 U
8082A	12674-11-2	Aroclor 1016	µg/kg	17 U	17 U	17 U	17 U	21 U	17 U	17 U
8082A	37324-23-5	Aroclor 1262	µg/kg	17 U	17 U	17 U	17 U	21 U	17 U	17 U
8082A	53469-21-9	Aroclor 1242	µg/kg	17 U	17 U	17 U	17 U	21 U	17 U	17 U
8082A	63496-31-1	Aroclor 5432	µg/kg	33 U	33 U	34 U	33 U	41 U	34 U	33 U

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-565-NBZ-SB-0.0-0.5	FDG2-SL-566-NBZ-SB-0.0-0.5	FDG2-SL-567-NBZ-SB-0.0-0.5	FDG2-SL-568-NBZ-SB-0.0-0.5	FDG2-SL-569-NBZ-SB-0.0-0.5	FDG2-SL-570-NBZ-SB-0.0-0.5	FDG2-SL-574-NBZ-SB-0.0-0.5
				Sample Type	N	N	N	N	N	N	N
				Sample Date	06/10/2014	06/10/2014	06/17/2014	06/17/2014	06/12/2014	06/12/2014	06/18/2014
				SDG	PH227	PH227	PH235	PH235	PH231	PH231	PH237
				Start Depth	0	0	0	0	0	0	0
				End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit								
8082A	11096-82-5	Aroclor 1260	µg/kg	17 U	17 U	17 U	18 U	17 U	17 U	17 U
8082A	11097-69-1	Aroclor 1254	µg/kg	7.5 J Z	24	17 U	8.0 J Z	9.5 J Z	17 U	17 U
8082A	11100-14-4	Aroclor 1268	µg/kg	17 U	17 U	17 U	18 U	17 U	17 U	17 U
8082A	11104-28-2	Aroclor 1221	µg/kg	17 U	17 U	17 U	18 U	17 U	17 U	17 U
8082A	11126-42-4	Aroclor 5460	µg/kg	33 U	33 U	33 U	35 U	33 U	33 U	34 U
8082A	11141-16-5	Aroclor 1232	µg/kg	17 U	17 U	17 U	18 U	17 U	17 U	17 U
8082A	12642-23-8	Aroclor 5442	µg/kg	33 U	33 U	33 U	35 U	33 U	33 U	34 U
8082A	12672-29-6	Aroclor 1248	µg/kg	17 U	17 U	17 U	18 U	17 U	17 U	17 U
8082A	12674-11-2	Aroclor 1016	µg/kg	17 U	17 U	17 U	18 U	17 U	17 U	17 U
8082A	37324-23-5	Aroclor 1262	µg/kg	17 U	17 U	17 U	18 U	17 U	17 U	17 U
8082A	53469-21-9	Aroclor 1242	µg/kg	17 U	17 U	17 U	18 U	17 U	17 U	17 U
8082A	63496-31-1	Aroclor 5432	µg/kg	33 U	33 U	33 U	35 U	33 U	33 U	34 U

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-575-NBZ-SB-0.0-0.5	FDG2-SL-576-NBZ-SB-0.0-0.5	FDG2-SL-578-NBZ-SB-0.0-0.5	FDG2-SL-582-NBZ-SB-0.0-0.5	FDG2-SL-583-NBZ-SB-0.0-0.5	FDG2-SL-584-NBZ-SB-0.0-0.5	FDG2-SL-584-SA5D-SB-0.0-0.5
				Sample Type	N	N	N	N	N	N	N
				Sample Date	06/18/2014	06/10/2014	05/22/2014	06/13/2014	06/12/2014	06/13/2014	05/21/2014
				SDG	PH237	PH227	PH196	PH233	PH231	PH233	PH193
				Start Depth	0	0	0	0	0	0	0
				End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit								
8082A	11096-82-5	Aroclor 1260	µg/kg	17 U	17 U	18 U	18 U	17 U	17 U	18 U
8082A	11097-69-1	Aroclor 1254	µg/kg	17 U	17 U	18 U	18 U	15 J Z	17 U	110
8082A	11100-14-4	Aroclor 1268	µg/kg	17 U	17 U	18 U	18 U	17 U	17 U	18 U
8082A	11104-28-2	Aroclor 1221	µg/kg	17 U	17 U	18 U	18 U	17 U	17 U	18 U
8082A	11126-42-4	Aroclor 5460	µg/kg	33 U	33 U	35 U	34 U	33 U	33 U	27 J Z
8082A	11141-16-5	Aroclor 1232	µg/kg	17 U	17 U	18 U	18 U	17 U	17 U	18 U
8082A	12642-23-8	Aroclor 5442	µg/kg	33 U	33 U	35 U	34 U	33 U	33 U	34 U
8082A	12672-29-6	Aroclor 1248	µg/kg	17 U	17 U	18 U	18 U	17 U	17 U	18 U
8082A	12674-11-2	Aroclor 1016	µg/kg	17 U	17 U	18 U	18 U	17 U	17 U	18 U
8082A	37324-23-5	Aroclor 1262	µg/kg	17 U	17 U	18 U	18 U	17 U	17 U	18 U
8082A	53469-21-9	Aroclor 1242	µg/kg	17 U	17 U	18 U	18 U	17 U	17 U	18 U
8082A	63496-31-1	Aroclor 5432	µg/kg	33 U	33 U	35 U	34 U	33 U	33 U	34 U

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-585-NBZ-SB-0.0-0.5	FDG2-SL-585-SA5D-SB-0.0-0.5	FDG2-SL-586-NBZ-SB-0.0-0.5	FDG2-SL-586-SA5D-SB-0.0-0.5	FDG2-SL-858-NBZ-SB-0.0-0.5	FDG2-SL-874-SA5A-SB-0.0-0.5	FDG2-SL-875-SA5A-SB-0.0-0.5
				Sample Type	N	N	N	N	FD	N	N
				Sample Date	06/13/2014	05/21/2014	06/13/2014	05/21/2014	06/09/2014	05/20/2014	06/16/2014
				SDG	PH233	PH193	PH233	PH193	PH224	PH188	PH234
				Start Depth	0	0	0	0	0	0	0
				End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit								
8082A	11096-82-5	Aroclor 1260	µg/kg	17 U	18 U	17 U	17 U	17 U	18 U	17 U
8082A	11097-69-1	Aroclor 1254	µg/kg	17 U	28	17 U	17 U	17 U	18 U	9.7 J Z
8082A	11100-14-4	Aroclor 1268	µg/kg	17 U	18 U	17 U	17 U	17 U	18 U	17 U
8082A	11104-28-2	Aroclor 1221	µg/kg	17 U	18 U	17 U	17 U	17 U	18 U	17 U
8082A	11126-42-4	Aroclor 5460	µg/kg	34 U	26 J Z	33 U	34 U	33 U	34 U	33 U
8082A	11141-16-5	Aroclor 1232	µg/kg	17 U	18 U	17 U	17 U	17 U	18 U	17 U
8082A	12642-23-8	Aroclor 5442	µg/kg	34 U	34 U	33 U	34 U	33 U	34 U	33 U
8082A	12672-29-6	Aroclor 1248	µg/kg	17 U	18 U	17 U	17 U	17 U	18 U	17 U
8082A	12674-11-2	Aroclor 1016	µg/kg	17 U	18 U	17 U	17 U	17 U	18 U	17 U
8082A	37324-23-5	Aroclor 1262	µg/kg	17 U	18 U	17 U	17 U	17 U	18 U	17 U
8082A	53469-21-9	Aroclor 1242	µg/kg	17 U	18 U	17 U	17 U	17 U	18 U	17 U
8082A	63496-31-1	Aroclor 5432	µg/kg	34 U	34 U	33 U	34 U	33 U	34 U	33 U

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-878-SA5A-SB-0.0-0.5	FDG2-SL-885-SA5D-SB-0.0-0.5	FDG-SL-1049-SA5C-SB-0.0-0.5	FDG-SL-511-SA5C-SB-0.0-0.5	FDG-SL-748-SA5C-SB-0.0-0.5	FDG-SL-749-SA5C-SB-0.0-0.5	FDG-SL-757-SA5C-SB-0.0-0.5
				Sample Type	N	FD	FD	N	N	N	N
				Sample Date	06/11/2014	05/21/2014	05/08/2014	05/08/2014	05/12/2014	05/08/2014	05/14/2014
				SDG	PH229	PH193	PH173	PH173	PH175	PH173	PH177
				Start Depth	0	0	0	0	0	0	0
				End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit								
8082A	11096-82-5	Aroclor 1260	µg/kg	17 U	18 U	18 U	11 J Z	18 U	18 U	18 U	17 U
8082A	11097-69-1	Aroclor 1254	µg/kg	17 U	30	18 U	11 J Z, *#	22	18 U	18 U	17 U
8082A	11100-14-4	Aroclor 1268	µg/kg	17 U	18 U	18 U	18 U	18 U	18 U	18 U	17 U
8082A	11104-28-2	Aroclor 1221	µg/kg	17 U	18 U	18 U	18 U	18 U	18 U	18 U	17 U
8082A	11126-42-4	Aroclor 5460	µg/kg	33 U	22 J Z	35 U	19 J Z	35 U	35 U	35 U	33 U
8082A	11141-16-5	Aroclor 1232	µg/kg	17 U	18 U	18 U	18 U	18 U	18 U	18 U	17 U
8082A	12642-23-8	Aroclor 5442	µg/kg	33 U	34 U	35 U	36 U	35 U	35 U	35 U	33 U
8082A	12672-29-6	Aroclor 1248	µg/kg	17 U	18 U	18 U	18 U	18 U	18 U	18 U	17 U
8082A	12674-11-2	Aroclor 1016	µg/kg	17 U	18 U	18 U	18 U	18 U	18 U	18 U	17 U
8082A	37324-23-5	Aroclor 1262	µg/kg	17 U	18 U	18 U	18 U	18 U	18 U	18 U	17 U
8082A	53469-21-9	Aroclor 1242	µg/kg	17 U	18 U	18 U	18 U	18 U	18 U	18 U	17 U
8082A	63496-31-1	Aroclor 5432	µg/kg	33 U	34 U	35 U	36 U	35 U	35 U	35 U	33 U

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Trench samples collected at a discrete interval.

				Sample Name	FDG-SL-798-SA5B-SB-0.0-0.5	FDG-SL-841-SA5B-SB-0.0-0.5	FDG-SL-842-SA5B-SB-0.0-0.5	SL-838-SA5B-SB-0.0-0.5	SL-839-SA5B-SB-0.0-0.5	SL-840-SA5B-SB-0.0-0.5	SL-843-SA5B-SB-0.0-0.5	SL-503-SA5C-TR-0.5
				Sample Type	N	N	N	N	N	N	N	N
				Sample Date	05/07/2014	05/14/2014	05/14/2014	01/13/2014	01/14/2014	01/13/2014	01/14/2014	05/29/2014
				SDG	PH172	PH177	PH177	PH158	PH159	PH158	PH159	PH207
				Start Depth	0	0	0	0	0	0	0	0.5
				End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
Analytic Method	CAS Number	Chemical Name	Unit									
8082A	11096-82-5	Aroclor 1260	µg/kg		17 U	130	17 U	18 U	18 U	18 U	19 U	18 U
8082A	11097-69-1	Aroclor 1254	µg/kg		32	17 U	17 U	18 U	18 U	8.4 J Z	7.7 J S, Z	7.1 J Z
8082A	11100-14-4	Aroclor 1268	µg/kg		17 U	17 U	17 U	18 U	18 U	18 U	190 U	18 U
8082A	11104-28-2	Aroclor 1221	µg/kg		17 U	17 U	17 U	18 U	18 U	18 U	19 U	18 U
8082A	11126-42-4	Aroclor 5460	µg/kg		30 J Z	34 U	34 U	34 U	35 U	35 U	37 U	34 U
8082A	11141-16-5	Aroclor 1232	µg/kg		17 U	17 U	17 U	18 U	18 U	18 U	19 U	18 U
8082A	12642-23-8	Aroclor 5442	µg/kg		34 U	34 U	34 U	34 U	35 U	35 U	370 U	34 U
8082A	12672-29-6	Aroclor 1248	µg/kg		17 U	17 U	17 U	18 U	61	12 J Z	6.7 J S, Z	18 U
8082A	12674-11-2	Aroclor 1016	µg/kg		17 U	17 U	17 U	18 U	18 U	18 U	19 U	18 U
8082A	37324-23-5	Aroclor 1262	µg/kg		17 U	17 U	17 U	18 U	18 U	18 U	190 U	18 U
8082A	53469-21-9	Aroclor 1242	µg/kg		17 U	17 U	17 U	18 U	18 U	18 U	19 U	18 U
8082A	63496-31-1	Aroclor 5432	µg/kg		34 U	34 U	34 U	34 U	35 U	35 U	37 U	34 U

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Trench samples collected at a discrete interval.

				Sample Name	SL-529-SA5B-TR-0.5	SL-534-SA8-TR-0.5	SL-548-SA8-TR-0.5	SL-569-SA6-TR-0.5	SL-570-SA6-TR-0.5	SL-587-SA5A-TR-0.5	SL-605-SA5C-TR-0.5	SL-611-SA8-TR-0.5	SL-636-SA5A-TR-0.5	SL-646-SA5C-TR-0.5
				Sample Type	N	N	N	N	N	N	N	N	N	N
				Sample Date	05/28/2014	05/19/2014	05/19/2014	05/20/2014	05/20/2014	05/22/2014	05/29/2014	05/20/2014	05/23/2014	06/04/2014
				SDG	PH204	PH185	PH185	PH189	PH189	PH195	PH207	PH189	PH199	PH217
				Start Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
				End Depth										
Analytic Method	CAS Number	Chemical Name	Unit											
8082A	11096-82-5	Aroclor 1260	µg/kg	18 U	18 U	19 U	17 U	17 U	7.3 J Z	31	30	17 U	7.5 J Z
8082A	11097-69-1	Aroclor 1254	µg/kg	7.6 J Z	18 U	19 U	17 U	17 U	17 U	18 U	99	8.4 J Z	17 U
8082A	11100-14-4	Aroclor 1268	µg/kg	18 U	18 U	19 U	17 U	17 U	17 U	18 U	18 U	17 U	17 U
8082A	11104-28-2	Aroclor 1221	µg/kg	18 U	18 U	19 U	17 U	17 U	17 U	18 U	18 U	17 U	17 U
8082A	11126-42-4	Aroclor 5460	µg/kg	34 U	34 U	36 U	33 U	33 U	34 U	35 U	35 U	33 U	34 U
8082A	11141-16-5	Aroclor 1232	µg/kg	18 U	18 U	19 U	17 U	17 U	17 U	18 U	18 U	17 U	17 U
8082A	12642-23-8	Aroclor 5442	µg/kg	34 U	34 U	36 U	33 U	33 U	34 U	35 U	35 U	33 U	34 U
8082A	12672-29-6	Aroclor 1248	µg/kg	18 U	18 U	19 U	17 U	17 U	17 U	18 U	18 U	17 U	17 U
8082A	12674-11-2	Aroclor 1016	µg/kg	18 U	18 U	19 U	17 U	17 U	17 U	18 U	18 U	17 U	17 U
8082A	37324-23-5	Aroclor 1262	µg/kg	18 U	18 U	19 U	17 U	17 U	17 U	18 U	18 U	17 U	17 U
8082A	53469-21-9	Aroclor 1242	µg/kg	18 U	18 U	19 U	17 U	17 U	17 U	18 U	18 U	17 U	17 U
8082A	63496-31-1	Aroclor 5432	µg/kg	34 U	34 U	36 U	33 U	33 U	34 U	35 U	35 U	33 U	34 U

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Trench samples collected at a discrete interval.

			Sample Name	SL-651-SA5C-TR-0.5	SL-653-SA5C-TR-0.5	SL-655-SA5C-TR-0.5	SL-686-SA6-TR-0.5	SL-693-SA5B-TR-0.5	SL-699-SA5B-TR-0.5	SL-707-SA5B-TR-0.5	SL-730-SA5A-TR-0.5	FDG2-SL-1175-SA5A-SB-2.0-3.0
			Sample Type	N	N	N	N	N	N	N	N	FD
			Sample Date	05/30/2014	06/02/2014	06/04/2014	05/21/2014	05/27/2014	05/28/2014	05/27/2014	05/22/2014	06/16/2014
			SDG	PH209	PH212	PH217	PH192	PH201	PH204	PH201	PH195	PH234
			Start Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2
			End Depth									3
Analytic Method	CAS Number	Chemical Name	Unit									
8082A	11096-82-5	Aroclor 1260	µg/kg	17 U	17 U	18 U	17 U	17 U	18 U	17 U	17 U	17 U
8082A	11097-69-1	Aroclor 1254	µg/kg	17 U	17 U	18 U	34	17 U	27	17 U	44	17 U
8082A	11100-14-4	Aroclor 1268	µg/kg	17 U	17 U	18 U	17 U	17 U	18 U	17 U	17 U	17 U
8082A	11104-28-2	Aroclor 1221	µg/kg	17 U	17 U	18 U	17 U	17 U	18 U	17 U	17 U	17 U
8082A	11126-42-4	Aroclor 5460	µg/kg	34 U	33 U	35 U	33 U	33 U	34 U	33 U	41	34 U
8082A	11141-16-5	Aroclor 1232	µg/kg	17 U	17 U	18 U	17 U	17 U	18 U	17 U	17 U	17 U
8082A	12642-23-8	Aroclor 5442	µg/kg	34 U	33 U	35 U	33 U	33 U	34 U	33 U	33 U	34 U
8082A	12672-29-6	Aroclor 1248	µg/kg	17 U	17 U	18 U	17 U	17 U	18 U	17 U	17 U	17 U
8082A	12674-11-2	Aroclor 1016	µg/kg	17 U	17 U	18 U	17 U	17 U	18 U	17 U	17 U	17 U
8082A	37324-23-5	Aroclor 1262	µg/kg	17 U	17 U	18 U	17 U	17 U	18 U	17 U	17 U	17 U
8082A	53469-21-9	Aroclor 1242	µg/kg	17 U	17 U	18 U	17 U	17 U	18 U	17 U	17 U	17 U
8082A	63496-31-1	Aroclor 5432	µg/kg	34 U	33 U	35 U	33 U	33 U	34 U	33 U	33 U	34 U

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-576-NBZ-SB-2.0-3.0	FDG2-SL-586-SA5D-SB-2.0-3.0	FDG2-SL-875-SA5A-SB-2.0-3.0	FDG-SL-511-SA5C-SB-2.0-3.0	SL-529-SA5B-TR-2.0	SL-570-SA6-TR-2.0	SL-569-SA6-TR-2.5	FDG2-SL-582-NBZ-SB-3.0-3.5
				Sample Type	N	N	N	N	N	N	N	N
				Sample Date	06/10/2014	05/21/2014	06/16/2014	05/08/2014	05/28/2014	05/20/2014	05/20/2014	06/13/2014
				SDG	PH227	PH193	PH234	PH173	PH204	PH189	PH189	PH233
				Start Depth	2	2	2	2	2	2	2.5	3
				End Depth	3	3	3	3				3.5
Analytic Method	CAS Number	Chemical Name	Unit									
8082A	11096-82-5	Aroclor 1260	µg/kg	18 U	18 U	17 U	18 U	6.9 J Z	18 U	18 U	18 U
8082A	11097-69-1	Aroclor 1254	µg/kg	18 U	18 U	17 U	18 U	8.6 J Z	18 U	18 U	18 U
8082A	11100-14-4	Aroclor 1268	µg/kg	18 U	18 U	17 U	18 U	18 U	18 U	18 U	18 U
8082A	11104-28-2	Aroclor 1221	µg/kg	18 U	18 U	17 U	18 U	18 U	18 U	18 U	18 U
8082A	11126-42-4	Aroclor 5460	µg/kg	34 U	34 U	34 U	34 U	36 U	34 U	34 U	36 U
8082A	11141-16-5	Aroclor 1232	µg/kg	18 U	18 U	17 U	18 U	18 U	18 U	18 U	18 U
8082A	12642-23-8	Aroclor 5442	µg/kg	34 U	34 U	34 U	34 U	36 U	34 U	34 U	36 U
8082A	12672-29-6	Aroclor 1248	µg/kg	18 U	18 U	17 U	18 U	18 U	18 U	18 U	18 U
8082A	12674-11-2	Aroclor 1016	µg/kg	18 U	18 U	17 U	18 U	18 U	18 U	18 U	18 U
8082A	37324-23-5	Aroclor 1262	µg/kg	18 U	18 U	17 U	18 U	18 U	18 U	18 U	18 U
8082A	53469-21-9	Aroclor 1242	µg/kg	18 U	18 U	17 U	18 U	18 U	18 U	18 U	18 U
8082A	63496-31-1	Aroclor 5432	µg/kg	34 U	34 U	34 U	34 U	36 U	34 U	34 U	36 U

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Trench samples collected at a discrete interval.

				Sample Name	SL-529-SA5B-TR-3.0	SL-693-SA5B-TR-3.0	SL-699-SA5B-TR-3.0	SL-707-SA5B-TR-3.0	SL-636-SA5A-TR-3.5	SL-693-SA5B-TR-3.5	FDG2-SL-1174-SA5A-SB-4.0-5.0	FDG2-SL-584-SA5D-SB-4.0-5.0
				Sample Type	N	N	N	N	N	N	N	N
				Sample Date	05/28/2014	05/28/2014	05/28/2014	05/27/2014	05/23/2014	05/27/2014	05/20/2014	05/21/2014
				SDG	PH204	PH204	PH204	PH201	PH199	PH201	PH188	PH193
				Start Depth	3	3	3	3	3.5	3.5	4	4
				End Depth							5	5
Analytic Method	CAS Number	Chemical Name	Unit									
8082A	11096-82-5	Aroclor 1260	µg/kg	18 U	17 U	18 U	17 U	18 U	18 U	18 U	18 U
8082A	11097-69-1	Aroclor 1254	µg/kg	18 U	17 U	18 U	17 U	18 U	18 U	18 U	18 U
8082A	11100-14-4	Aroclor 1268	µg/kg	18 U	17 U	18 U	17 U	18 U	18 U	18 U	18 U
8082A	11104-28-2	Aroclor 1221	µg/kg	18 U	17 U	18 U	17 U	18 U	18 U	18 U	18 U
8082A	11126-42-4	Aroclor 5460	µg/kg	35 U	34 U	35 U	34 U	34 U	34 U	35 U	34 U
8082A	11141-16-5	Aroclor 1232	µg/kg	18 U	17 U	18 U	17 U	18 U	18 U	18 U	18 U
8082A	12642-23-8	Aroclor 5442	µg/kg	35 U	34 U	35 U	34 U	34 U	34 U	35 U	34 U
8082A	12672-29-6	Aroclor 1248	µg/kg	18 U	17 U	18 U	17 U	18 U	18 U	18 U	18 U
8082A	12674-11-2	Aroclor 1016	µg/kg	18 U	17 U	18 U	17 U	18 U	18 U	18 U	18 U
8082A	37324-23-5	Aroclor 1262	µg/kg	18 U	17 U	18 U	17 U	18 U	18 U	18 U	18 U
8082A	53469-21-9	Aroclor 1242	µg/kg	18 U	17 U	18 U	17 U	18 U	18 U	18 U	18 U
8082A	63496-31-1	Aroclor 5432	µg/kg	35 U	34 U	35 U	34 U	34 U	34 U	35 U	34 U

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-585-SA5D-SB-4.0-5.0	FDG2-SL-874-SA5A-SB-4.0-5.0	FDG2-SL-878-SA5A-SB-4.0-5.0	FDG-SL-748-SA5C-SB-4.0-5.0	FDG-SL-757-SA5C-SB-4.0-5.0	FDG-SL-841-SA5B-SB-4.0-5.0	FDG-SL-842-SA5B-SB-4.0-5.0
				Sample Type	N	N	N	N	N	N	N
				Sample Date	05/21/2014	05/20/2014	06/11/2014	05/12/2014	05/14/2014	05/14/2014	05/14/2014
				SDG	PH193	PH188	PH229	PH175	PH177	PH177	PH177
				Start Depth	4	4	4	4	4	4	4
				End Depth	5	5	5	5	5	5	5
Analytic Method	CAS Number	Chemical Name	Unit								
8082A	11096-82-5	Aroclor 1260	µg/kg	19 U	18 U	17 U	18 U	19 U	19 U	18 U
8082A	11097-69-1	Aroclor 1254	µg/kg	19 U	18 U	17 U	18 U	11 J Z	19 U	18 U
8082A	11100-14-4	Aroclor 1268	µg/kg	19 U	18 U	17 U	18 U	19 U	19 U	18 U
8082A	11104-28-2	Aroclor 1221	µg/kg	19 U	18 U	17 U	18 U	19 U	19 U	18 U
8082A	11126-42-4	Aroclor 5460	µg/kg	37 U	35 U	34 U	35 U	36 U	36 U	35 U
8082A	11141-16-5	Aroclor 1232	µg/kg	19 U	18 U	17 U	18 U	19 U	19 U	18 U
8082A	12642-23-8	Aroclor 5442	µg/kg	37 U	35 U	34 U	35 U	36 U	36 U	35 U
8082A	12672-29-6	Aroclor 1248	µg/kg	19 U	18 U	17 U	18 U	19 U	19 U	18 U
8082A	12674-11-2	Aroclor 1016	µg/kg	19 U	18 U	17 U	18 U	19 U	19 U	18 U
8082A	37324-23-5	Aroclor 1262	µg/kg	19 U	18 U	17 U	18 U	19 U	19 U	18 U
8082A	53469-21-9	Aroclor 1242	µg/kg	19 U	18 U	17 U	18 U	19 U	19 U	18 U
8082A	63496-31-1	Aroclor 5432	µg/kg	37 U	35 U	34 U	35 U	36 U	36 U	35 U

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Trench samples collected at a discrete interval.

				Sample Name	SL-838-SA5B-SB-4.0-5.0	SL-839-SA5B-SB-4.0-5.0	SL-840-SA5B-SB-4.0-5.0	SL-843-SA5B-SB-4.0-5.0	SL-503-SA5C-TR-5.0	SL-534-SA8-TR-5.0	SL-548-SA8-TR-5.0	SL-605-SA5C-TR-5.0	SL-611-SA8-TR-5.0	SL-646-SA5C-TR-5.0
				Sample Type	N	N	N	N	N	N	N	N	N	N
				Sample Date	01/13/2014	01/14/2014	01/13/2014	01/14/2014	05/29/2014	05/19/2014	05/19/2014	05/29/2014	05/20/2014	06/04/2014
				SDG	PH158	PH159	PH158	PH159	PH207	PH185	PH185	PH207	PH189	PH217
				Start Depth	4	4	4	4						
				End Depth	5	5	5	5	5	5	5	5	5	5
Analytic Method	CAS Number	Chemical Name	Unit											
8082A	11096-82-5	Aroclor 1260	µg/kg	18 U	19 U	18 U	19 U	19 U	18 U	20 U	18 U	19 U	18 U
8082A	11097-69-1	Aroclor 1254	µg/kg	18 U	19 U	18 U	6.5 J Z	19 U	18 U	20 U	18 U	19 U	18 U
8082A	11100-14-4	Aroclor 1268	µg/kg	18 U	19 U	18 U	19 U	19 U	18 U	20 U	18 U	19 U	18 U
8082A	11104-28-2	Aroclor 1221	µg/kg	18 U	19 U	18 U	19 U	19 U	18 U	20 U	18 U	19 U	18 U
8082A	11126-42-4	Aroclor 5460	µg/kg	36 U	36 U	36 U	38 U	36 U	35 U	38 U	35 U	36 U	34 U
8082A	11141-16-5	Aroclor 1232	µg/kg	18 U	19 U	18 U	19 U	19 U	18 U	20 U	18 U	19 U	18 U
8082A	12642-23-8	Aroclor 5442	µg/kg	36 U	36 U	36 U	38 U	36 U	35 U	38 U	35 U	36 U	34 U
8082A	12672-29-6	Aroclor 1248	µg/kg	18 UJ FD	7.8 J FD, Z	18 U	8.6 J Z	19 U	18 U	20 U	18 U	19 U	18 U
8082A	12674-11-2	Aroclor 1016	µg/kg	18 U	19 U	18 U	19 U	19 U	18 U	20 U	18 U	19 U	18 U
8082A	37324-23-5	Aroclor 1262	µg/kg	18 U	19 U	18 U	19 U	19 U	18 U	20 U	18 U	19 U	18 U
8082A	53469-21-9	Aroclor 1242	µg/kg	18 U	19 U	18 U	19 U	19 U	18 U	20 U	18 U	19 U	18 U
8082A	63496-31-1	Aroclor 5432	µg/kg	36 U	36 U	36 U	38 U	36 U	35 U	38 U	35 U	36 U	34 U

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Trench samples collected at a discrete interval.

				Sample Name	SL-651-SA5C-TR-5.0	SL-653-SA5C-TR-5.0	SL-655-SA5C-TR-5.0	SL-686-SA6-TR-5.0	SL-693-SA5B-TR-5.0	SL-848-SA8-TR-5.0	SL-951-SA5C-TR-5.0	SL-587-SA5A-TR-5.5	SL-887-SA5A-TR-5.5	SL-570-SA6-TR-6.0
				Sample Type	N	N	N	N	N	FD	FD	N	N	N
				Sample Date	05/30/2014	06/02/2014	06/04/2014	05/21/2014	05/27/2014	05/19/2014	05/30/2014	05/22/2014	05/22/2014	05/20/2014
				SDG	PH209	PH212	PH217	PH192	PH201	PH185	PH209	PH195	PH195	PH189
				Start Depth	5	5	5	5	5	5	5	5.5	5.5	6
				End Depth										
Analytic Method	CAS Number	Chemical Name	Unit											
8082A	11096-82-5	Aroclor 1260	µg/kg	18 U	17 U	18 U	18 U	18 U	19 U	17 U	19 U	19 U	18 U
8082A	11097-69-1	Aroclor 1254	µg/kg	18 U	17 U	18 U	18 U	18 U	19 U	17 U	19 U	19 U	18 U
8082A	11100-14-4	Aroclor 1268	µg/kg	18 U	17 U	18 U	18 U	18 U	19 U	17 U	19 U	19 U	18 U
8082A	11104-28-2	Aroclor 1221	µg/kg	18 U	17 U	18 U	18 U	18 U	19 U	17 U	19 U	19 U	18 U
8082A	11126-42-4	Aroclor 5460	µg/kg	34 U	33 U	34 U	34 U	34 U	38 U	34 U	36 U	36 U	35 U
8082A	11141-16-5	Aroclor 1232	µg/kg	18 U	17 U	18 U	18 U	18 U	19 U	17 U	19 U	19 U	18 U
8082A	12642-23-8	Aroclor 5442	µg/kg	34 U	33 U	34 U	34 U	34 U	38 U	34 U	36 U	36 U	35 U
8082A	12672-29-6	Aroclor 1248	µg/kg	18 U	17 U	18 U	18 U	18 U	19 U	17 U	19 U	19 U	18 U
8082A	12674-11-2	Aroclor 1016	µg/kg	18 U	17 U	18 U	18 U	18 U	19 U	17 U	19 U	19 U	18 U
8082A	37324-23-5	Aroclor 1262	µg/kg	18 U	17 U	18 U	18 U	18 U	19 U	17 U	19 U	19 U	18 U
8082A	53469-21-9	Aroclor 1242	µg/kg	18 U	17 U	18 U	18 U	18 U	19 U	17 U	19 U	19 U	18 U
8082A	63496-31-1	Aroclor 5432	µg/kg	34 U	33 U	34 U	34 U	34 U	38 U	34 U	36 U	36 U	35 U

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Trench samples collected at a discrete interval.

				Sample Name	SL-730-SA5A-TR-6.0	FDG2-SL-631-SA8-SB-7.0-8.0	SL-840-SA5B-SB-7.0-8.0	SL-843-SA5B-SB-7.0-8.0	SL-503-SA5C-TR-7.5	SL-636-SA5A-TR-7.5	FDG-SL-757-SA5C-SB-8.0-9.0	SL-699-SA5B-TR-8.0
				Sample Type	N	N	N	N	N	N	N	N
				Sample Date	05/22/2014	06/05/2014	01/13/2014	01/14/2014	05/29/2014	05/23/2014	05/14/2014	05/28/2014
				SDG	PH195	PH220	PH158	PH159	PH207	PH199	PH177	PH204
				Start Depth	6	7	7	7	7.5	7.5	8	8
				End Depth		8	8	8			9	
Analytic Method	CAS Number	Chemical Name	Unit									
8082A	11096-82-5	Aroclor 1260	µg/kg	18 U	20 U	19 U	19 U	18 U	18 U	18 U	18 U
8082A	11097-69-1	Aroclor 1254	µg/kg	18 U	20 U	19 U	11 J Z	18 U	18 U	18 U	18 U
8082A	11100-14-4	Aroclor 1268	µg/kg	18 U	20 U	19 U	19 U	18 U	18 U	18 U	18 U
8082A	11104-28-2	Aroclor 1221	µg/kg	18 U	20 U	19 U	19 U	18 U	18 U	18 U	18 U
8082A	11126-42-4	Aroclor 5460	µg/kg	35 U	40 U	37 U	37 U	35 U	34 U	35 U	35 U
8082A	11141-16-5	Aroclor 1232	µg/kg	18 U	20 U	19 U	19 U	18 U	18 U	18 U	18 U
8082A	12642-23-8	Aroclor 5442	µg/kg	35 U	40 U	37 U	37 U	35 U	34 U	35 U	35 U
8082A	12672-29-6	Aroclor 1248	µg/kg	18 U	20 U	19 U	14 J Z	18 U	18 U	18 U	18 U
8082A	12674-11-2	Aroclor 1016	µg/kg	18 U	20 U	19 U	19 U	18 U	18 U	18 U	18 U
8082A	37324-23-5	Aroclor 1262	µg/kg	18 U	20 U	19 U	19 U	18 U	18 U	18 U	18 U
8082A	53469-21-9	Aroclor 1242	µg/kg	18 U	20 U	19 U	19 U	18 U	18 U	18 U	18 U
8082A	63496-31-1	Aroclor 5432	µg/kg	35 U	40 U	37 U	37 U	35 U	34 U	35 U	35 U

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-581-NBZ-SB-9.0-10.0	FDG2-SL-623-SA8-SB-9.0-10.0	FDG2-SL-628-SA8-SB-9.0-10.0	FDG-SL-841-SA5B-SB-9.0-10.0	SL-839-SA5B-SB-9.0-10.0	SL-548-SA8-TR-10.0	SL-605-SA5C-TR-10.0	SL-651-SA5C-TR-10.0
				Sample Type	N	N	N	N	N	N	N	N
				Sample Date	05/22/2014	05/21/2014	05/22/2014	05/14/2014	01/14/2014	05/19/2014	05/29/2014	05/30/2014
				SDG	PH196	PH193	PH196	PH177	PH159	PH185	PH207	PH209
				Start Depth	9	9	9	9	9	10	10	10
				End Depth	10	10	10	10	10			
Analytic Method	CAS Number	Chemical Name	Unit									
8082A	11096-82-5	Aroclor 1260	µg/kg	19 U	18 U	18 U	19 U	19 U	19 U	18 U	18 U
8082A	11097-69-1	Aroclor 1254	µg/kg	19 U	18 U	18 U	19 U	19 U	19 U	18 U	18 U
8082A	11100-14-4	Aroclor 1268	µg/kg	19 U	18 U	18 U	19 U	19 U	19 U	18 U	18 U
8082A	11104-28-2	Aroclor 1221	µg/kg	19 U	18 U	18 U	19 U	19 U	19 U	18 U	18 U
8082A	11126-42-4	Aroclor 5460	µg/kg	37 U	34 U	35 U	36 U	36 U	38 U	36 U	34 U
8082A	11141-16-5	Aroclor 1232	µg/kg	19 U	18 U	18 U	19 U	19 U	19 U	18 U	18 U
8082A	12642-23-8	Aroclor 5442	µg/kg	37 U	34 U	35 U	36 U	36 U	38 U	36 U	34 U
8082A	12672-29-6	Aroclor 1248	µg/kg	19 U	18 U	18 U	19 U	31	19 U	18 U	18 U
8082A	12674-11-2	Aroclor 1016	µg/kg	19 U	18 U	18 U	19 U	19 U	19 U	18 U	18 U
8082A	37324-23-5	Aroclor 1262	µg/kg	19 U	18 U	18 U	19 U	19 U	19 U	18 U	18 U
8082A	53469-21-9	Aroclor 1242	µg/kg	19 U	18 U	18 U	19 U	19 U	19 U	18 U	18 U
8082A	63496-31-1	Aroclor 5432	µg/kg	37 U	34 U	35 U	36 U	36 U	38 U	36 U	34 U

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Trench samples collected at a discrete interval.

			Sample Name	SL-653-SA5C-TR-10.0	SL-611-SA8-TR-10.5	SL-529-SA5B-TR-11.0	SL-686-SA6-TR-11.0	FDG2-SL-874-SA5A-SB-12.0-13.0	FDG2-SL-581-NBZ-SB-13.0-14.0	FDG2-SL-623-SA8-SB-14.0-15.0	FDG2-SL-628-SA8-SB-14.0-15.0
			Sample Type	N	N	N	N	N	N	N	N
			Sample Date	06/02/2014	05/20/2014	05/28/2014	05/21/2014	05/20/2014	05/22/2014	05/21/2014	05/22/2014
			SDG	PH212	PH189	PH204	PH192	PH188	PH196	PH193	PH196
			Start Depth	10	10.5	11	11	12	13	14	14
			End Depth					13	14	15	15
Analytic Method	CAS Number	Chemical Name	Unit								
8082A	11096-82-5	Aroclor 1260	µg/kg	17 U	9.7 J Z	18 U	18 U	18 U	18 U	18 U	18 U
8082A	11097-69-1	Aroclor 1254	µg/kg	17 U	11 J Z	18 U	18 U	18 U	18 U	18 U	18 U
8082A	11100-14-4	Aroclor 1268	µg/kg	17 U	19 U	18 U	18 U	18 U	18 U	18 U	18 U
8082A	11104-28-2	Aroclor 1221	µg/kg	17 U	19 U	18 U	18 U	18 U	18 U	18 U	18 U
8082A	11126-42-4	Aroclor 5460	µg/kg	34 U	36 U	36 U	34 U	35 U	35 U	35 U	35 U
8082A	11141-16-5	Aroclor 1232	µg/kg	17 U	19 U	18 U	18 U	18 U	18 U	18 U	18 U
8082A	12642-23-8	Aroclor 5442	µg/kg	34 U	36 U	36 U	34 U	35 U	35 U	35 U	35 U
8082A	12672-29-6	Aroclor 1248	µg/kg	17 U	19 U	18 U	18 U	18 U	18 U	18 U	18 U
8082A	12674-11-2	Aroclor 1016	µg/kg	17 U	19 U	18 U	18 U	18 U	18 U	18 U	18 U
8082A	37324-23-5	Aroclor 1262	µg/kg	17 U	19 U	18 U	18 U	18 U	18 U	18 U	18 U
8082A	53469-21-9	Aroclor 1242	µg/kg	17 U	19 U	18 U	18 U	18 U	18 U	18 U	18 U
8082A	63496-31-1	Aroclor 5432	µg/kg	34 U	36 U	36 U	34 U	35 U	35 U	35 U	35 U

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Trench samples collected at a discrete interval.

				Sample Name	FDG-SL-756-SA5C-SB-15.0-16.0	FDG-SL-836-SA5B-SB-15.0-16.0	SL-651-SA5C-TR-15.0	SL-653-SA5C-TR-15.0	SL-839-SA5B-SB-15.5-16.5	FDG2-SL-623-SA8-SB-19.0-20.0	FDG-SL-836-SA5B-SB-19.0-20.0
				Sample Type	N	N	N	N	N	N	N
				Sample Date	05/13/2014	05/13/2014	05/30/2014	06/02/2014	01/14/2014	05/21/2014	05/13/2014
				SDG	PH176	PH176	PH209	PH212	PH159	PH193	PH176
				Start Depth	15	15	15	15	15.5	19	19
				End Depth	16	16			16.5	20	20
Analytic Method	CAS Number	Chemical Name	Unit								
8082A	11096-82-5	Aroclor 1260	µg/kg	18 U	20 U	18 U	17 U	20 U	17 U	18 U
8082A	11097-69-1	Aroclor 1254	µg/kg	18 U	20 U	18 U	17 U	20 U	17 U	18 U
8082A	11100-14-4	Aroclor 1268	µg/kg	18 U	20 U	18 U	17 U	20 U	17 U	18 U
8082A	11104-28-2	Aroclor 1221	µg/kg	18 U	20 U	18 U	17 U	20 U	17 U	18 U
8082A	11126-42-4	Aroclor 5460	µg/kg	35 U	39 U	34 U	33 U	38 U	34 U	34 U
8082A	11141-16-5	Aroclor 1232	µg/kg	18 U	20 U	18 U	17 U	20 U	17 U	18 U
8082A	12642-23-8	Aroclor 5442	µg/kg	35 U	39 U	34 U	33 U	38 U	34 U	34 U
8082A	12672-29-6	Aroclor 1248	µg/kg	18 U	20 U	18 U	17 U	20 U	17 U	18 U
8082A	12674-11-2	Aroclor 1016	µg/kg	18 U	20 U	18 U	17 U	20 U	17 U	18 U
8082A	37324-23-5	Aroclor 1262	µg/kg	18 U	20 U	18 U	17 U	20 U	17 U	18 U
8082A	53469-21-9	Aroclor 1242	µg/kg	18 U	20 U	18 U	17 U	20 U	17 U	18 U
8082A	63496-31-1	Aroclor 5432	µg/kg	35 U	39 U	34 U	33 U	38 U	34 U	34 U

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Trench samples collected at a discrete interval.

				Sample Name	FDG-SL-1049-SA5C-SB-0.0-0.5	FDG-SL-511-SA5C-SB-0.0-0.5	FDG-SL-748-SA5C-SB-0.0-0.5	FDG-SL-749-SA5C-SB-0.0-0.5	FDG-SL-757-SA5C-SB-0.0-0.5	SL-503-SA5C-TR-0.5	SL-605-SA5C-TR-0.5	SL-646-SA5C-TR-0.5
				Sample Type	FD	N	N	N	N	N	N	N
				Sample Date	05/08/2014	05/08/2014	05/12/2014	05/08/2014	05/14/2014	05/29/2014	05/29/2014	06/04/2014
				SDG	PH173	PH173	PH175	PH173	PH177	PH207	PH207	PH217
				Start Depth	0	0	0	0	0	0.5	0.5	0.5
				End Depth	0.5	0.5	0.5	0.5	0.5			
Analytic Method	CAS Number	Chemical Name	Unit									
6850	14797-73-0	Perchlorate	µg/kg	5.3 U	5.4 U	5.4 U	5.3 U	5.1 U	5.3 U	5.3 U	5.1 U

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Trench samples collected at a discrete interval.

			Sample Name	SL-651-SA5C-TR-0.5	SL-653-SA5C-TR-0.5	SL-655-SA5C-TR-0.5	FDG-SL-511-SA5C-SB-2.0-3.0	FDG-SL-748-SA5C-SB-4.0-5.0	FDG-SL-757-SA5C-SB-4.0-5.0	SL-503-SA5C-TR-5.0	SL-605-SA5C-TR-5.0	SL-646-SA5C-TR-5.0
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	05/30/2014	06/02/2014	06/04/2014	05/08/2014	05/12/2014	05/14/2014	05/29/2014	05/29/2014	06/04/2014
			SDG	PH209	PH212	PH217	PH173	PH175	PH177	PH207	PH207	PH217
			Start Depth	0.5	0.5	0.5	2	4	4	5	5	5
			End Depth				3	5	5			
Analytic Method	CAS Number	Chemical Name	Unit									
6850	14797-73-0	Perchlorate	µg/kg	5.2 U	5.1 U	5.3 U	5.2 U	5.3 U	5.5 U	5.6 U	5.4 U	5.2 U

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Z, etc. – Specific description qualifiers that are applied during validation. Definitions are provided at the beginning of Appendix A. The letters can vary and there can be more than one letter.

Trench samples collected at a discrete interval.

				Sample Name	SL-651-SA5C-TR-5.0	SL-653-SA5C-TR-5.0	SL-655-SA5C-TR-5.0	SL-951-SA5C-TR-5.0	SL-503-SA5C-TR-7.5	FDG-SL-757-SA5C-SB-8.0-9.0	SL-605-SA5C-TR-10.0	SL-651-SA5C-TR-10.0	SL-653-SA5C-TR-10.0
				Sample Type	N	N	N	FD	N	N	N	N	N
				Sample Date	05/30/2014	06/02/2014	06/04/2014	05/30/2014	05/29/2014	05/14/2014	05/29/2014	05/30/2014	06/02/2014
				SDG	PH209	PH212	PH217	PH209	PH207	PH177	PH207	PH209	PH212
				Start Depth	5	5	5	5	7.5	8	10	10	10
				End Depth						9			
Analytic Method	CAS Number	Chemical Name	Unit										
6850	14797-73-0	Perchlorate	µg/kg	5.2 U	5.1 U	5.2 U	5.2 U	5.3 U	5.3 U	5.5 U	5.3 U	5.2 U

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Trench samples collected at a discrete interval.

				Sample Name	FDG-SL-756-SA5C-SB-15.0-16.0	SL-651-SA5C-TR-15.0	SL-653-SA5C-TR-15.0
				Sample Type	N	N	N
				Sample Date	05/13/2014	05/30/2014	06/02/2014
				SDG	PH176	PH209	PH212
				Start Depth	15	15	15
				End Depth	16		
Analytic Method	CAS Number	Chemical Name	Unit				
6850	14797-73-0	Perchlorate	µg/kg		5.4 U	5.3 U	5.2 U

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-558-NBZ-SB-0.0-0.5	FDG2-SL-562-NBZ-SB-0.0-0.5	FDG2-SL-563-NBZ-SB-0.0-0.5	FDG2-SL-584-SA5D-SB-0.0-0.5	FDG2-SL-585-SA5D-SB-0.0-0.5	FDG2-SL-586-SA5D-SB-0.0-0.5	FDG2-SL-858-NBZ-SB-0.0-0.5
				Sample Type	N	N	N	N	N	N	FD
				Sample Date	06/09/2014	06/12/2014	06/12/2014	05/21/2014	05/21/2014	05/21/2014	06/09/2014
				SDG	PH224	PH231	PH231	PH193	PH193	PH193	PH224
				Start Depth	0	0	0	0	0	0	0
				End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit								
8081B	1024-57-3	Heptachlor Epoxide	µg/kg	0.83 U	0.24 J Z	0.85 U	0.85 U	0.86 U	0.85 U	0.84 U
8081B	1031-07-8	Endosulfan Sulfate	µg/kg	1.7 U	2.1 U	1.7 U	1.8 U	1.8 U	1.7 U	1.7 U
8081B	2385-85-5	Mirex	µg/kg	1.7 UJ FD	2.1 U	1.7 U	1.8 U	1.8 U	1.7 U	0.53 J FD, Z
8081B	309-00-2	Aldrin	µg/kg	0.83 U	1.0 U	0.85 U	0.85 U	0.86 U	0.85 U	0.84 U
8081B	319-84-6	Alpha-Bhc	µg/kg	0.83 U	1.0 U	0.85 U	0.85 U	0.86 U	0.85 U	0.84 U
8081B	319-85-7	Beta-Bhc	µg/kg	1.9 U	2.4 U	1.3 J Z	2.0 U	2.0 U	2.0 U	1.9 U
8081B	319-86-8	Delta-Bhc	µg/kg	0.83 U	1.0 U	0.85 U	0.85 U	0.86 U	0.85 U	0.84 U
8081B	33213-65-9	Endosulfan II	µg/kg	1.7 U	2.1 U	1.7 U	1.8 U	1.8 U	1.7 U	1.7 U
8081B	50-29-3	4,4'-DDT	µg/kg	1.6 J Z	2.1 U	0.39 J Z	12 U	7.8 J Q	1.7 U	1.9
8081B	53494-70-5	Endrin Ketone	µg/kg	1.8 U	2.2 U	1.8 U	1.9 U	1.9 U	1.9 U	1.8 U
8081B	57-74-9	Chlordane	µg/kg	17 U	21 U	17 U	19 U	18 U	17 U	17 U
8081B	58-89-9	Gamma-Bhc (Lindane)	µg/kg	0.83 U	0.34 J Z	0.85 U	0.21 J Z	0.86 U	0.85 U	0.84 U
8081B	60-57-1	Dieldrin	µg/kg	1.7 U	2.1 U	1.7 U	2.8 U	1.8 UJ FD	1.7 U	1.7 U
8081B	72-20-8	Endrin	µg/kg	1.7 U	2.1 U	1.7 U	1.8 U	1.8 U	1.7 U	1.7 U
8081B	72-43-5	Methoxychlor	µg/kg	6.7 U	8.3 U	6.9 U	6.9 U	7.0 U	6.9 U	6.8 U
8081B	72-54-8	4,4'-DDD	µg/kg	1.7 UJ FD	2.1 U	1.7 U	1.8 U	1.8 U	1.7 U	0.58 J FD, Z
8081B	72-55-9	4,4'-DDE	µg/kg	0.99 J Z	0.53 J Z	0.44 J Z	6.5	2.4	1.7 U	1.2 J Z
8081B	7421-93-4	Endrin Aldehyde	µg/kg	0.79 J Z	2.1 U	1.7 U	1.8 U	1.8 U	1.7 U	0.87 J Z
8081B	76-44-8	Heptachlor	µg/kg	0.83 U	1.0 U	0.85 U	0.85 U	0.86 U	0.85 U	0.84 U
8081B	8001-35-2	Technical Toxaphene	µg/kg	33 U	41 U	34 U	34 U	34 U	34 U	34 U
8081B	959-98-8	Endosulfan I	µg/kg	0.83 U	1.0 U	0.85 U	0.85 U	0.86 U	0.85 U	0.84 U

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-885-SA5D-SB-0.0-0.5	SL-646-SA5C-TR-0.5	SL-651-SA5C-TR-0.5	SL-653-SA5C-TR-0.5	SL-655-SA5C-TR-0.5	SL-693-SA5B-TR-0.5	SL-699-SA5B-TR-0.5	SL-707-SA5B-TR-0.5	FDG2-SL-586-SA5D-SB-2.0-3.0
				Sample Type	FD	N	N	N	N	N	N	N	N
				Sample Date	05/21/2014	06/04/2014	05/30/2014	06/02/2014	06/04/2014	05/27/2014	05/28/2014	05/27/2014	05/21/2014
				SDG	PH193	PH217	PH209	PH212	PH217	PH201	PH204	PH201	PH193
				Start Depth	0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2
				End Depth	0.5								3
Analytic Method	CAS Number	Chemical Name	Unit										
8081B	1024-57-3	Heptachlor Epoxide	µg/kg	0.86 U	0.85 U	0.87 U	0.85 U	0.88 U	0.85 U	4.3 U	0.84 U	0.86 U
8081B	1031-07-8	Endosulfan Sulfate	µg/kg	1.8 U	1.7 U	1.8 U	1.7 U	1.8 U	1.7 U	4.6 J Z	1.7 U	1.8 U
8081B	2385-85-5	Mirex	µg/kg	1.8 U	1.7 U	1.8 U	1.7 U	1.8 U	1.7 U	8.8 U	1.7 U	1.8 U
8081B	309-00-2	Aldrin	µg/kg	0.86 U	0.85 U	0.87 U	0.85 U	0.88 U	0.85 U	4.3 U	0.84 U	0.86 U
8081B	319-84-6	Alpha-Bhc	µg/kg	0.86 U	0.85 U	0.87 U	0.85 U	0.88 U	0.85 U	4.3 U	0.84 U	0.86 U
8081B	319-85-7	Beta-Bhc	µg/kg	2.0 U	1.9 U	2.0 U	1.9 U	1.4 J Z	1.9 U	9.8 U	1.9 U	2.0 U
8081B	319-86-8	Delta-Bhc	µg/kg	0.86 U	0.85 U	0.87 U	0.85 U	0.88 U	0.85 U	4.3 U	0.84 U	0.86 U
8081B	33213-65-9	Endosulfan II	µg/kg	1.8 U	1.7 U	1.8 U	1.7 U	1.8 U	1.7 U	8.8 U	0.56 J Z	1.8 U
8081B	50-29-3	4,4'-DDT	µg/kg	6.1	1.7 U	1.8 U	1.7 UJ C	1.8 U	0.40 J Z	5.5 J Z	45 J Z	1.8 U
8081B	53494-70-5	Endrin Ketone	µg/kg	1.9 U	1.8 U	1.9 U	1.8 U	1.9 U	1.8 U	9.3 U	0.92 J Z	1.9 U
8081B	57-74-9	Chlordane	µg/kg	18 U	17 U	18 U	17 U	18 U	17 U	88 U	17 U	18 U
8081B	58-89-9	Gamma-Bhc (Lindane)	µg/kg	0.86 U	0.85 U	0.87 U	0.85 U	0.88 U	0.85 U	4.3 U	0.84 U	0.86 U
8081B	60-57-1	Dieldrin	µg/kg	1.2 J FD, Z	1.7 U	1.8 U	1.7 U	1.8 U	1.7 U	8.8 U	7.0	1.8 U
8081B	72-20-8	Endrin	µg/kg	1.8 U	1.7 U	1.8 U	1.7 U	1.8 U	1.7 U	8.8 U	1.7 U	1.8 U
8081B	72-43-5	Methoxychlor	µg/kg	6.9 U	6.9 U	7.0 U	6.8 UJ C	7.1 U	6.8 U	35 U	6.8 U	6.9 U
8081B	72-54-8	4,4'-DDD	µg/kg	1.8 U	1.7 U	1.8 U	1.7 UJ C	1.8 U	1.7 U	39 U	1.4 J Z	1.8 U
8081B	72-55-9	4,4'-DDE	µg/kg	1.6 J Z	1.7 U	1.8 U	1.7 UJ C	1.8 U	1.7 U	1.8 J Z	550	1.8 U
8081B	7421-93-4	Endrin Aldehyde	µg/kg	1.8 U	1.7 U	1.8 U	1.7 U	1.8 U	1.7 U	8.8 U	1.7 U	1.8 U
8081B	76-44-8	Heptachlor	µg/kg	0.86 U	0.85 U	0.87 U	0.85 U	0.88 U	0.85 U	1.2 J Z	0.84 U	0.86 U
8081B	8001-35-2	Technical Toxaphene	µg/kg	34 U	34 U	34 U	34 U	35 U	34 U	190 U	33 U	34 U
8081B	959-98-8	Endosulfan I	µg/kg	0.86 U	0.85 U	0.87 U	0.85 U	0.88 U	0.85 U	2.7 J Z	0.84 U	0.86 U

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Trench samples collected at a discrete interval.

				Sample Name	SL-693-SA5B-TR-3.0	SL-699-SA5B-TR-3.0	SL-707-SA5B-TR-3.0	SL-693-SA5B-TR-3.5	FDG2-SL-584-SA5D-SB-4.0-5.0	FDG2-SL-585-SA5D-SB-4.0-5.0	SL-646-SA5C-TR-5.0	SL-651-SA5C-TR-5.0	SL-653-SA5C-TR-5.0
				Sample Type	N	N	N	N	N	N	N	N	N
				Sample Date	05/28/2014	05/28/2014	05/27/2014	05/27/2014	05/21/2014	05/21/2014	06/04/2014	05/30/2014	06/02/2014
				SDG	PH204	PH204	PH201	PH201	PH193	PH193	PH217	PH209	PH212
				Start Depth	3	3	3	3.5	4	4	5	5	5
				End Depth					5	5			
Analytic Method	CAS Number	Chemical Name	Unit										
8081B	1024-57-3	Heptachlor Epoxide	µg/kg	0.86 U	0.88 U	0.86 U	0.87 U	0.86 U	0.93 U	0.87 U	0.87 U	0.85 U
8081B	1031-07-8	Endosulfan Sulfate	µg/kg	1.8 U	1.1 J Z	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	1.7 U
8081B	2385-85-5	Mirex	µg/kg	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	1.7 U
8081B	309-00-2	Aldrin	µg/kg	0.86 U	0.88 U	0.86 U	0.87 U	0.86 U	0.93 U	0.87 U	0.87 U	0.85 U
8081B	319-84-6	Alpha-Bhc	µg/kg	0.86 U	0.88 U	0.86 U	0.87 U	0.86 U	0.93 U	0.87 U	0.87 U	0.85 U
8081B	319-85-7	Beta-Bhc	µg/kg	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.1 U	2.0 U	2.0 U	1.9 U
8081B	319-86-8	Delta-Bhc	µg/kg	0.86 U	0.88 U	0.86 U	0.87 U	0.86 U	0.93 U	0.87 U	0.87 U	0.85 U
8081B	33213-65-9	Endosulfan II	µg/kg	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	1.7 U
8081B	50-29-3	4,4'-DDT	µg/kg	0.69 J Z	1.8 U	1.1 J Z	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	1.7 UJ C
8081B	53494-70-5	Endrin Ketone	µg/kg	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U	1.9 U	1.8 U
8081B	57-74-9	Chlordane	µg/kg	18 U	18 U	18 U	18 U	18 U	19 U	18 U	18 U	17 U
8081B	58-89-9	Gamma-Bhc (Lindane)	µg/kg	0.86 U	0.88 U	0.86 U	0.87 U	0.86 U	0.93 U	0.87 U	0.87 U	0.85 U
8081B	60-57-1	Dieldrin	µg/kg	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	1.7 U
8081B	72-20-8	Endrin	µg/kg	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	1.7 U
8081B	72-43-5	Methoxychlor	µg/kg	7.0 U	3.4 J Z	7.0 U	7.0 U	6.9 U	7.5 U	7.0 U	7.0 U	6.8 UJ C
8081B	72-54-8	4,4'-DDD	µg/kg	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	1.7 UJ C
8081B	72-55-9	4,4'-DDE	µg/kg	1.8 U	1.8 U	10	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	1.7 UJ C
8081B	7421-93-4	Endrin Aldehyde	µg/kg	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	1.7 U
8081B	76-44-8	Heptachlor	µg/kg	0.86 U	0.54 J Z	0.86 U	0.87 U	0.86 U	0.93 U	0.87 U	0.87 U	0.85 U
8081B	8001-35-2	Technical Toxaphene	µg/kg	34 U	54 U	34 U	35 U	34 U	37 U	34 U	35 U	34 U
8081B	959-98-8	Endosulfan I	µg/kg	0.86 U	0.39 J Z	0.86 U	0.87 U	0.86 U	0.93 U	0.87 U	0.87 U	0.85 U

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Trench samples collected at a discrete interval.

			Sample Name	SL-655-SA5C-TR-5.0	SL-693-SA5B-TR-5.0	SL-951-SA5C-TR-5.0	SL-699-SA5B-TR-8.0	SL-651-SA5C-TR-10.0	SL-653-SA5C-TR-10.0	SL-651-SA5C-TR-15.0	SL-653-SA5C-TR-15.0
			Sample Type	N	N	FD	N	N	N	N	N
			Sample Date	06/04/2014	05/27/2014	05/30/2014	05/28/2014	05/30/2014	06/02/2014	05/30/2014	06/02/2014
			SDG	PH217	PH201	PH209	PH204	PH209	PH212	PH209	PH212
			Start Depth	5	5	5	8	10	10	15	15
			End Depth								
Analytic Method	CAS Number	Chemical Name	Unit								
8081B	1024-57-3	Heptachlor Epoxide	µg/kg	0.85 U	0.88 U	0.87 U	0.89 U	0.87 U	0.87 U	0.88 U	0.85 U
8081B	1031-07-8	Endosulfan Sulfate	µg/kg	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.7 U
8081B	2385-85-5	Mirex	µg/kg	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.7 U
8081B	309-00-2	Aldrin	µg/kg	0.85 U	0.88 U	0.87 U	0.89 U	0.87 U	0.87 U	0.88 U	0.85 U
8081B	319-84-6	Alpha-Bhc	µg/kg	0.85 U	0.88 U	0.87 U	0.89 U	0.87 U	0.87 U	0.88 U	0.85 U
8081B	319-85-7	Beta-Bhc	µg/kg	1.9 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.9 U
8081B	319-86-8	Delta-Bhc	µg/kg	0.85 U	0.88 U	0.87 U	0.89 U	0.87 U	0.87 U	0.88 U	0.85 U
8081B	33213-65-9	Endosulfan II	µg/kg	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.7 U
8081B	50-29-3	4,4'-DDT	µg/kg	1.7 U	1.8 U	1.8 U	1.8 U	0.57 J Z	1.8 UJ C	1.8 U	1.2 J Z, C
8081B	53494-70-5	Endrin Ketone	µg/kg	1.8 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.8 U
8081B	57-74-9	Chlordane	µg/kg	17 U	18 U	18 U	18 U	18 U	18 U	18 U	17 U
8081B	58-89-9	Gamma-Bhc (Lindane)	µg/kg	0.85 U	0.88 U	0.87 U	0.89 U	0.87 U	0.87 U	0.88 U	0.85 U
8081B	60-57-1	Dieldrin	µg/kg	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.7 U
8081B	72-20-8	Endrin	µg/kg	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.7 U
8081B	72-43-5	Methoxychlor	µg/kg	6.8 U	7.1 U	7.0 U	7.2 U	7.0 U	7.0 UJ C	7.1 U	6.8 UJ C
8081B	72-54-8	4,4'-DDD	µg/kg	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 UJ C	1.8 U	1.7 UJ C
8081B	72-55-9	4,4'-DDE	µg/kg	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 UJ C	1.8 U	1.1 J Z, C
8081B	7421-93-4	Endrin Aldehyde	µg/kg	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.7 U
8081B	76-44-8	Heptachlor	µg/kg	0.85 U	0.88 U	0.87 U	0.89 U	0.87 U	0.87 U	0.88 U	0.85 U
8081B	8001-35-2	Technical Toxaphene	µg/kg	34 U	35 U	35 U	35 U	35 U	35 U	35 U	34 U
8081B	959-98-8	Endosulfan I	µg/kg	0.85 U	0.88 U	0.87 U	0.89 U	0.87 U	0.87 U	0.88 U	0.85 U

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-558-NBZ-SB-0.0-0.5	FDG2-SL-559-NBZ-SB-0.0-0.5	FDG2-SL-560-NBZ-SB-0.0-0.5	FDG2-SL-561-NBZ-SB-0.0-0.5	FDG2-SL-562-NBZ-SB-0.0-0.5	FDG2-SL-563-NBZ-SB-0.0-0.5	FDG2-SL-564-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N
			Sample Date	06/09/2014	06/09/2014	06/11/2014	05/23/2014	06/12/2014	06/12/2014	06/10/2014
			SDG	PH224	PH224	PH229	PH197	PH231	PH231	PH227
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
9045M	pH	pH	pH	6.29	6.39	7.92	7.45	7.83	8.08	5.92

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-565-NBZ-SB-0.0-0.5	FDG2-SL-566-NBZ-SB-0.0-0.5	FDG2-SL-567-NBZ-SB-0.0-0.5	FDG2-SL-568-NBZ-SB-0.0-0.5	FDG2-SL-569-NBZ-SB-0.0-0.5	FDG2-SL-570-NBZ-SB-0.0-0.5	FDG2-SL-574-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N
			Sample Date	06/10/2014	06/10/2014	06/17/2014	06/17/2014	06/12/2014	06/12/2014	06/18/2014
			SDG	PH227	PH227	PH235	PH235	PH231	PH231	PH237
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
9045M	pH	pH	pH	5.96	6.19	6.73	6.43	6.35	5.90	5.92

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-575-NBZ-SB-0.0-0.5	FDG2-SL-578-NBZ-SB-0.0-0.5	FDG2-SL-581-NBZ-SB-0.0-0.5	FDG2-SL-584-SA5D-SB-0.0-0.5	FDG2-SL-585-SA5D-SB-0.0-0.5	FDG2-SL-586-SA5D-SB-0.0-0.5	FDG2-SL-858-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	FD
			Sample Date	06/18/2014	05/22/2014	05/22/2014	05/21/2014	05/21/2014	05/21/2014	06/09/2014
			SDG	PH237	PH196	PH196	PH193	PH193	PH193	PH224
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
9045M	pH	pH	pH	6.41	7.48	7.18	8.02	7.24	6.17	6.26

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-874-SA5A-SB-0.0-0.5	FDG2-SL-875-SA5A-SB-0.0-0.5	FDG2-SL-885-SA5D-SB-0.0-0.5	FDG-SL-1049-SA5C-SB-0.0-0.5	FDG-SL-511-SA5C-SB-0.0-0.5	FDG-SL-748-SA5C-SB-0.0-0.5	FDG-SL-749-SA5C-SB-0.0-0.5
			Sample Type	N	N	FD	FD	N	N	N
			Sample Date	05/20/2014	06/16/2014	05/21/2014	05/08/2014	05/08/2014	05/12/2014	05/08/2014
			SDG	PH188	PH234	PH193	PH173	PH173	PH175	PH173
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
9045M	pH	pH	pH	8.04	6.49	7.29	8.15	7.97	7.74	8.17

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Trench samples collected at a discrete interval.

			Sample Name	FDG-SL-757-SA5C-SB-0.0-0.5	FDG-SL-798-SA5B-SB-0.0-0.5	FDG-SL-841-SA5B-SB-0.0-0.5	FDG-SL-842-SA5B-SB-0.0-0.5	SL-838-SA5B-SB-0.0-0.5	SL-839-SA5B-SB-0.0-0.5	SL-840-SA5B-SB-0.0-0.5	SL-843-SA5B-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N
			Sample Date	05/14/2014	05/07/2014	05/14/2014	05/14/2014	01/13/2014	01/14/2014	01/13/2014	01/14/2014
			SDG	PH177	PH172	PH177	PH177	PH158	PH159	PH158	PH159
			Start Depth	0	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit								
9045M	pH	pH	pH	8.74	7.81	8.30	8.59	7.12	7.08	6.99	8.63

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Trench samples collected at a discrete interval.

			Sample Name	SL-503-SA5C-TR-0.5	SL-529-SA5B-TR-0.5	SL-534-SA8-TR-0.5	SL-548-SA8-TR-0.5	SL-569-SA6-TR-0.5	SL-570-SA6-TR-0.5	SL-587-SA5A-TR-0.5	SL-605-SA5C-TR-0.5	SL-611-SA8-TR-0.5	SL-636-SA5A-TR-0.5
			Sample Type	N	N	N	N	N	N	N	N	N	N
			Sample Date	05/29/2014	05/28/2014	05/19/2014	05/19/2014	05/20/2014	05/20/2014	05/22/2014	05/29/2014	05/20/2014	05/23/2014
			SDG	PH207	PH204	PH185	PH185	PH189	PH189	PH195	PH207	PH189	PH199
			Start Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
			End Depth										
Analytic Method	CAS Number	Chemical Name	Unit										
9045M	pH	pH	pH	6.32	8.78	8.35	8.17	8.43	7.34	7.79	7.93	7.95	8.39

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Trench samples collected at a discrete interval.

			Sample Name	SL-646-SA5C-TR-0.5	SL-651-SA5C-TR-0.5	SL-653-SA5C-TR-0.5	SL-655-SA5C-TR-0.5	SL-686-SA6-TR-0.5	SL-693-SA5B-TR-0.5	SL-699-SA5B-TR-0.5	SL-707-SA5B-TR-0.5	SL-730-SA5A-TR-0.5	FDG2-SL-1175-SA5A-SB-2.0-3.0
			Sample Type	N	N	N	N	N	N	N	N	N	FD
			Sample Date	06/04/2014	05/30/2014	06/02/2014	06/04/2014	05/21/2014	05/27/2014	05/28/2014	05/27/2014	05/22/2014	06/16/2014
			SDG	PH217	PH209	PH212	PH217	PH192	PH201	PH204	PH201	PH195	PH234
			Start Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2
			End Depth										3
Analytic Method	CAS Number	Chemical Name	Unit										
9045M	pH	pH	pH	7.59	6.70	6.79	7.77	6.09	6.85	4.52	6.46	6.36	5.86

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-586-SA5D-SB-2.0-3.0	FDG2-SL-875-SA5A-SB-2.0-3.0	FDG-SL-511-SA5C-SB-2.0-3.0	SL-529-SA5B-TR-2.0	SL-570-SA6-TR-2.0	SL-569-SA6-TR-2.5	SL-529-SA5B-TR-3.0	SL-693-SA5B-TR-3.0	SL-699-SA5B-TR-3.0
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	05/21/2014	06/16/2014	05/08/2014	05/28/2014	05/20/2014	05/20/2014	05/28/2014	05/28/2014	05/28/2014
			SDG	PH193	PH234	PH173	PH204	PH189	PH189	PH204	PH204	PH204
			Start Depth	2	2	2	2	2	2.5	3	3	3
			End Depth	3	3	3						
Analytic Method	CAS Number	Chemical Name	Unit									
9045M	pH	pH	pH	6.64	6.11	7.93	6.88	7.22	6.17	8.16	7.47	6.49

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Trench samples collected at a discrete interval.

				Sample Name	SL-707-SA5B-TR-3.0	SL-636-SA5A-TR-3.5	SL-693-SA5B-TR-3.5	FDG2-SL-1174-SA5A-SB-4.0-5.0	FDG2-SL-581-NBZ-SB-4.0-5.0	FDG2-SL-584-SA5D-SB-4.0-5.0	FDG2-SL-585-SA5D-SB-4.0-5.0	FDG2-SL-874-SA5A-SB-4.0-5.0
				Sample Type	N	N	N	N	N	N	N	N
				Sample Date	05/27/2014	05/23/2014	05/27/2014	05/20/2014	05/22/2014	05/21/2014	05/21/2014	05/20/2014
				SDG	PH201	PH199	PH201	PH188	PH196	PH193	PH193	PH188
				Start Depth	3	3.5	3.5	4	4	4	4	4
				End Depth				5	5	5	5	5
Analytic Method	CAS Number	Chemical Name	Unit									
9045M	pH	pH	pH	6.58	8.45	7.31	7.24	6.56	7.91	8.24	7.00	

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-878-SA5A-SB-4.0-5.0	FDG-SL-748-SA5C-SB-4.0-5.0	FDG-SL-757-SA5C-SB-4.0-5.0	FDG-SL-841-SA5B-SB-4.0-5.0	FDG-SL-842-SA5B-SB-4.0-5.0	SL-838-SA5B-SB-4.0-5.0	SL-839-SA5B-SB-4.0-5.0
				Sample Type	N	N	N	N	N	N	N
				Sample Date	06/11/2014	05/12/2014	05/14/2014	05/14/2014	05/14/2014	01/13/2014	01/14/2014
				SDG	PH229	PH175	PH177	PH177	PH177	PH158	PH159
				Start Depth	4	4	4	4	4	4	4
				End Depth	5	5	5	5	5	5	5
Analytic Method	CAS Number	Chemical Name	Unit								
9045M	pH	pH	pH	6.10	7.52	8.68	8.52	8.01	7.32	7.42

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Trench samples collected at a discrete interval.

			Sample Name	SL-840-SA5B-SB-4.0-5.0	SL-843-SA5B-SB-4.0-5.0	SL-503-SA5C-TR-5.0	SL-534-SA8-TR-5.0	SL-548-SA8-TR-5.0	SL-605-SA5C-TR-5.0	SL-611-SA8-TR-5.0	SL-646-SA5C-TR-5.0	SL-651-SA5C-TR-5.0	SL-653-SA5C-TR-5.0
			Sample Type	N	N	N	N	N	N	N	N	N	N
			Sample Date	01/13/2014	01/14/2014	05/29/2014	05/19/2014	05/19/2014	05/29/2014	05/20/2014	06/04/2014	05/30/2014	06/02/2014
			SDG	PH158	PH159	PH207	PH185	PH185	PH207	PH189	PH217	PH209	PH212
			Start Depth	4	4	5	5	5	5	5	5	5	5
			End Depth	5	5								
Analytic Method	CAS Number	Chemical Name	Unit										
9045M	pH	pH	pH	5.21	9.00	8.15	8.81	8.19	8.29	7.93	7.09	7.85	7.92

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Trench samples collected at a discrete interval.

			Sample Name	SL-655-SA5C-TR-5.0	SL-686-SA6-TR-5.0	SL-693-SA5B-TR-5.0	SL-848-SA8-TR-5.0	SL-951-SA5C-TR-5.0	SL-587-SA5A-TR-5.5	SL-887-SA5A-TR-5.5	SL-570-SA6-TR-6.0	SL-730-SA5A-TR-6.0	FDG2-SL-631-SA8-SB-7.0-8.0
			Sample Type	N	N	N	FD	FD	N	N	N	N	N
			Sample Date	06/04/2014	05/21/2014	05/27/2014	05/19/2014	05/30/2014	05/22/2014	05/22/2014	05/20/2014	05/22/2014	06/05/2014
			SDG	PH217	PH192	PH201	PH185	PH209	PH195	PH195	PH189	PH195	PH220
			Start Depth	5	5	5	5	5	5.5	5.5	6	6	7
			End Depth										8
Analytic Method	CAS Number	Chemical Name	Unit										
9045M	pH	pH	pH	8.57	6.18	7.51	8.11	7.63	7.72	7.55	6.54	5.95	8.01

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Trench samples collected at a discrete interval.

				Sample Name	SL-840-SA5B-SB-7.0-8.0	SL-843-SA5B-SB-7.0-8.0	SL-503-SA5C-TR-7.5	SL-636-SA5A-TR-7.5	FDG-SL-757-SA5C-SB-8.0-9.0	SL-699-SA5B-TR-8.0	FDG2-SL-581-NBZ-SB-9.0-10.0	FDG2-SL-623-SA8-SB-9.0-10.0
				Sample Type	N	N	N	N	N	N	N	N
				Sample Date	01/13/2014	01/14/2014	05/29/2014	05/23/2014	05/14/2014	05/28/2014	05/22/2014	05/21/2014
				SDG	PH158	PH159	PH207	PH199	PH177	PH204	PH196	PH193
				Start Depth	7	7	7.5	7.5	8	8	9	9
				End Depth	8	8			9		10	10
Analytic Method	CAS Number	Chemical Name	Unit									
9045M	pH	pH	pH	6.57	8.78	8.88	7.67	9.07	7.46	5.74	8.09

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-628-SA8-SB-9.0-10.0	FDG-SL-841-SA5B-SB-9.0-10.0	SL-839-SA5B-SB-9.0-10.0	SL-548-SA8-TR-10.0	SL-605-SA5C-TR-10.0	SL-651-SA5C-TR-10.0	SL-653-SA5C-TR-10.0	SL-611-SA8-TR-10.5	SL-529-SA5B-TR-11.0
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	05/22/2014	05/14/2014	01/14/2014	05/19/2014	05/29/2014	05/30/2014	06/02/2014	05/20/2014	05/28/2014
			SDG	PH196	PH177	PH159	PH185	PH207	PH209	PH212	PH189	PH204
			Start Depth	9	9	9	10	10	10	10	10.5	11
			End Depth	10	10	10						
Analytic Method	CAS Number	Chemical Name	Unit									
9045M	pH	pH	pH	7.98	8.26	7.88	8.12	7.68	8.07	8.15	8.06	8.61

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Trench samples collected at a discrete interval.

			Sample Name	SL-686-SA6-TR-11.0	FDG2-SL-874-SA5A-SB-12.0-13.0	FDG2-SL-581-NBZ-SB-13.0-14.0	FDG2-SL-623-SA8-SB-14.0-15.0	FDG2-SL-628-SA8-SB-14.0-15.0	FDG-SL-756-SA5C-SB-15.0-16.0	FDG-SL-836-SA5B-SB-15.0-16.0
			Sample Type	N	N	N	N	N	N	N
			Sample Date	05/21/2014	05/20/2014	05/22/2014	05/21/2014	05/22/2014	05/13/2014	05/13/2014
			SDG	PH192	PH188	PH196	PH193	PH196	PH176	PH176
			Start Depth	11	12	13	14	14	15	15
			End Depth		13	14	15	15	16	16
Analytic Method	CAS Number	Chemical Name	Unit							
9045M	pH	pH	pH	6.96	6.90	7.38	8.61	8.36	7.62	7.82

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Trench samples collected at a discrete interval.

			Sample Name	SL-651-SA5C-TR-15.0	SL-653-SA5C-TR-15.0	SL-839-SA5B-SB-15.5-16.5	FDG2-SL-623-SA8-SB-19.0-20.0	FDG-SL-836-SA5B-SB-19.0-20.0
			Sample Type	N	N	N	N	N
			Sample Date	05/30/2014	06/02/2014	01/14/2014	05/21/2014	05/13/2014
			SDG	PH209	PH212	PH159	PH193	PH176
			Start Depth	15	15	15.5	19	19
			End Depth			16.5	20	20
Analytic Method	CAS Number	Chemical Name	Unit					
9045M	pH	pH	pH	8.14	8.04	11.9	8.80	7.98

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Trench samples collected at a discrete interval.

				Sample Name	SL-646-SA5C-TR-0.5	SL-651-SA5C-TR-0.5	SL-653-SA5C-TR-0.5	SL-655-SA5C-TR-0.5	SL-646-SA5C-TR-5.0	SL-651-SA5C-TR-5.0	SL-653-SA5C-TR-5.0	SL-655-SA5C-TR-5.0	SL-951-SA5C-TR-5.0	SL-651-SA5C-TR-10.0	SL-653-SA5C-TR-10.0	SL-651-SA5C-TR-15.0	SL-653-SA5C-TR-15.0
				Sample Type	N	N	N	N	N	N	N	N	FD	N	N	N	N
				Sample Date	06/04/2014	05/30/2014	06/02/2014	06/04/2014	06/04/2014	05/30/2014	06/02/2014	06/04/2014	05/30/2014	05/30/2014	06/02/2014	05/30/2014	06/02/2014
				SDG	PH217	PH209	PH212	PH217	PH217	PH209	PH212	PH217	PH209	PH209	PH212	PH209	PH212
				Start Depth	0.5	0.5	0.5	0.5	5	5	5	5	5	10	10	15	15
				End Depth													
Analytic Method	CAS Number	Chemical Name	Unit														
8270D	100-01-6	4-Nitroaniline	µg/kg	170 U	170 UJ L	170 UJ L	180 U	170 U	170 UJ L	170 UJ L	170 U	170 UJ L	180 UJ L	170 UJ L	180 UJ L	170 UJ L
8270D	100-02-7	4-Nitrophenol	µg/kg	510 U	520 U	510 U	530 U	520 U	520 U	510 U	520 U	520 U	530 U	520 U	530 U	520 U
8270D	100-51-6	Benzyl Alcohol	µg/kg	340 U	520 U	510 U	350 U	350 U	520 U	510 U	340 U	520 U	530 U	520 U	530 U	520 U
8270D	101-55-3	4-Bromophenyl-phenylether	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	105-67-9	2,4-Dimethylphenol	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	106-44-5	4-Methylphenol	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	106-46-7	1,4-Dichlorobenzene	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	106-47-8	4-Chloroaniline	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	108-68-9	3,5-Dimethylphenol	µg/kg	170 U	170 U	170 U	180 U	170 U	170 U	170 U	170 U	170 U	180 U	170 U	180 U	170 U
8270D	108-95-2	Phenol	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	110-86-1	Pyridine	µg/kg	170 U	170 U	170 U	180 U	170 U	170 U	170 U	170 U	170 U	180 U	170 U	180 U	170 U
8270D	111-44-4	bis(2-chloroethyl) ether	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	111-76-2	2-butoxyethanol	µg/kg	170 U	--	--	180 U	180 U	--	--	180 U	--	--	--	--	--
8270D	111-91-1	bis(2-chloroethoxy)methane	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	118-74-1	Hexachlorobenzene	µg/kg	17 U	18 U	17 U	18 U	18 U	18 U	17 U	18 U	18 U	18 U	18 U	18 U	18 U
8270D	119-64-2	Tetralin	µg/kg	170 UJ L	--	--	180 UJ L	170 UJ L	--	--	170 UJ Q, L	--	--	--	--	--
8270D	120-82-1	1,2,4-Trichlorobenzene	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	120-83-2	2,4-Dichlorophenol	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	122-66-7	1,2-Diphenylhydrazine	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	122-99-6	2-phenoxyethanol	µg/kg	170 U	--	--	180 U	180 U	--	--	180 U	--	--	--	--	--
8270D	129-00-0	Pyrene	µg/kg	--	5 J Z	--	--	--	4 J Z	--	--	--	--	--	--	--
8270D	132-64-9	Dibenzofuran	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	191-24-2	Benzo(g,h,i)perylene	µg/kg	--	4 J Z	--	--	--	--	--	--	--	--	--	--	--
8270D	205-99-2	Benzo(b)fluoranthene	µg/kg	--	5 J Z	5 J Z	--	--	5 J Z	--	--	5 J Z	5 J Z	--	4 J Z	--
8270D	206-44-0	Fluoranthene	µg/kg	--	4 J Z	--	--	--	4 J Z	--	--	--	--	--	--	--
8270D	218-01-9	Chrysene	µg/kg	--	5 J Z	--	--	--	--	--	--	4 J Z	--	--	--	--
8270D	39638-32-9	bis(2-chloroisopropyl) ether	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	50-32-8	Benzo(a)pyrene	µg/kg	--	4 J Z	4 J Z	--	--	4 J Z	--	--	4 J Z	4 J Z	--	4 J Z	--
8270D	51-28-5	2,4-Dinitrophenol	µg/kg	670 U	1000 U	1000 U	700 U	690 U	1000 U	1000 U	680 U	1000 U	1100 U	1000 U	1100 U	1000 U
8270D	534-52-1	4,6-Dinitro-2-methylphenol	µg/kg	510 U	520 UJ L	510 UJ L	530 U	520 U	520 UJ L	510 UJ L	520 U	520 UJ L	530 UJ L	520 UJ L	530 UJ L	520 UJ L
8270D	541-73-1	1,3-Dichlorobenzene	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	56-55-3	Benzo(a)anthracene	µg/kg	--	4 J Z	--	--	--	4 J Z	--	--	--	--	--	--	--
8270D	59-50-7	4-Chloro-3-methylphenol	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	621-64-7	N-Nitroso-di-n-propylamine	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	62-53-3	Aniline	µg/kg	340 U	520 U	510 U	350 U	350 U	520 U	510 U	340 U	520 U	530 U	520 U	530 U	520 U
8270D	65-85-0	Benzoic Acid	µg/kg	510 U	520 U	510 U	530 U	520 U	520 U	510 U	520 U	520 U	530 U	520 U	530 U	520 U
8270D	67-72-1	Hexachloroethane	µg/kg	170 U	170 U	170 U	180 U	170 U	170 U	170 U	170 U	170 U	180 U	170 U	180 U	170 U
8270D	7005-72-3	4-Chlorophenyl-phenylether	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	77-47-4	Hexachlorocyclopentadiene	µg/kg	510 U	520 U	510 U	530 U	520 U	520 U	510 U	520 U	520 U	530 U	520 U	530 U	520 U
8270D	78-59-1	Isophorone	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	85-01-8	Phenanthrene	µg/kg	--	--	--	--	--	4 J Z	--	--	--	--	--	--	--
8270D	86-30-6	N-Nitrosodiphenylamine	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	86-74-8	Carbazole	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	87-65-0	2,6-Dichlorophenol	µg/kg	34 U	35 U	34 U	35 U	35 U	35 R Q	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	87-68-3	Hexachlorobutadiene	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	87-86-5	Pentachlorophenol	µg/kg	170 U	180 U	170 U	180 U	180 U	180 U	170 U	180 U	180 U	180 U	180 U	180 U	180 U
8270D	88-06-2	2,4,6-Trichlorophenol	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	88-74-4	2-Nitroaniline	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	88-75-5	2-Nitrophenol	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	91-58-7	2-Chloronaphthalene	µg/kg	34 U	34 U	34 U	35 U	34 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	91-94-1	3,3'-Dichlorobenzidine	µg/kg	340 U	350 U	340 U	350 U	350 U	350 U	340 U	340 U	350 U	350 U	350 U	350 U	340 U
8270D	92-52-4	1,1'-Biphenyl	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	92-87-5	Benzidine	µg/kg	1700 U	3500 U	3400 U	1800 U	1700 U	3500 UJ Q	3400 U	1700 UJ Q	3500 U	3500 U	3500 U	3500 U	3400 U
8270D	95-48-7	2-Methylphenol	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	95-50-1	1,2-Dichlorobenzene	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	95-57-8	2-Chlorophenol	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	95-95-4	2,4,5-Trichlorophenol	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	98-95-3	Nitrobenzene	µg/kg	34 U	35 U	34 U	35 U	35 U	35 U	34 U	34 U	35 U	35 U	35 U	35 U	34 U
8270D	99-09-2	3-Nitroaniline	µg/kg	170 U	170 U	170 U	180 U	170 U	170 U	170 U	170 U	170 U	180 U	170 U	180 U	170 U
8270D	NDPA122-39-4	Diphenylamine	µg/kg	170 U	170 U	170 U	180 U	170 U	170 U	170 U	170 U	170 U	180 U	170 U	180 U	170 U

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Trench samples collected at a discrete interval.

			Sample Name	SL-646-SA5C-TR-0.5	SL-651-SA5C-TR-0.5	SL-653-SA5C-TR-0.5	SL-655-SA5C-TR-0.5	SL-646-SA5C-TR-5.0	SL-651-SA5C-TR-5.0	SL-653-SA5C-TR-5.0	SL-655-SA5C-TR-5.0	SL-951-SA5C-TR-5.0	SL-651-SA5C-TR-10.0
			Sample Type	N	N	N	N	N	N	N	N	FD	N
			Sample Date	06/04/2014	05/30/2014	06/02/2014	06/04/2014	06/04/2014	05/30/2014	06/02/2014	06/04/2014	05/30/2014	05/30/2014
			SDG	PH217	PH209	PH212	PH217	PH217	PH209	PH212	PH217	PH209	PH209
			Start Depth	0.5	0.5	0.5	0.5	5	5	5	5	5	10
			End Depth										
Analytic Method	CAS Number	Chemical Name	Unit										
8015B	84-15-1	o-Terphenyl	mg/kg	0.17 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
8015B	92-06-8	m-Terphenyl	mg/kg	0.17 U	0.18 U	0.17 U	0.51 J Q	0.18 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U
8015B	92-94-4	p-Terphenyl	mg/kg	0.17 U	0.18 U	0.17 U	0.98 J Q	0.18 U	0.18 U	0.17 U	0.18 U	0.18 U	0.18 U

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Trench samples collected at a discrete interval.

			Sample Name	SL-653-SA5C-TR-10.0	SL-651-SA5C-TR-15.0	SL-653-SA5C-TR-15.0
			Sample Type	N	N	N
			Sample Date	06/02/2014	05/30/2014	06/02/2014
			SDG	PH212	PH209	PH212
			Start Depth	10	15	15
			End Depth			
Analytic Method	CAS Number	Chemical Name	Unit			
8015B	84-15-1	o-Terphenyl	mg/kg	0.18 U	0.18 U	0.18 U
8015B	92-06-8	m-Terphenyl	mg/kg	0.18 U	0.18 U	0.18 U
8015B	92-94-4	p-Terphenyl	mg/kg	0.18 U	0.18 U	0.18 U

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-558-NBZ-SB-0.0-0.5	FDG2-SL-559-NBZ-SB-0.0-0.5	FDG2-SL-560-NBZ-SB-0.0-0.5	FDG2-SL-561-NBZ-SB-0.0-0.5	FDG2-SL-562-NBZ-SB-0.0-0.5	FDG2-SL-563-NBZ-SB-0.0-0.5	FDG2-SL-564-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N
			Sample Date	06/09/2014	06/09/2014	06/11/2014	05/23/2014	06/12/2014	06/12/2014	06/10/2014
			SDG	PH224	PH224	PH229	PH197	PH231	PH231	PH227
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.1 U	5.1 U	5.1 U	10 U	6.2 U	5.1 U	5.1 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	3.4 J Z	5.1 U	5.6	4.1 J Z	3.3 J Z	5.1 U	3.6 J Z
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	28 J Q	4.4 J Z	59	44	14	7.2	23
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	47 J Q	11	96	99	32	16	30
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.1 U	5.1 U	5.1 U	10 U	6.2 U	5.1 U	5.1 U

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-565-NBZ-SB-0.0-0.5	FDG2-SL-566-NBZ-SB-0.0-0.5	FDG2-SL-567-NBZ-SB-0.0-0.5	FDG2-SL-568-NBZ-SB-0.0-0.5	FDG2-SL-569-NBZ-SB-0.0-0.5	FDG2-SL-570-NBZ-SB-0.0-0.5	FDG2-SL-571-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N
			Sample Date	06/10/2014	06/10/2014	06/17/2014	06/17/2014	06/12/2014	06/12/2014	06/11/2014
			SDG	PH227	PH227	PH235	PH235	PH231	PH231	PH229
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	2.4 J Z	25 U	5.1 U	26 U	5.0 U	5.0 U	11 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	6.7	23 J Z	2.4 J Z	27	5.0 U	5.0 U	11 J Z
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	45	210	16 J Q	130	18	5.6	71
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	61	400	37 J Q	260	37	12	140
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	6.4	25 U	5.1 U	26 U	5.0 U	5.0 U	11 U

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-572-NBZ-SB-0.0-0.5	FDG2-SL-573-NBZ-SB-0.0-0.5	FDG2-SL-574-NBZ-SB-0.0-0.5	FDG2-SL-575-NBZ-SB-0.0-0.5	FDG2-SL-576-NBZ-SB-0.0-0.5	FDG2-SL-577-NBZ-SB-0.0-0.5	FDG2-SL-578-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N
			Sample Date	06/17/2014	06/18/2014	06/18/2014	06/18/2014	06/10/2014	06/11/2014	05/22/2014
			SDG	PH235	PH237	PH237	PH237	PH227	PH229	PH196
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.1 U	25 U	5.1 U	5.0 U	5.1 U	5.1 U	5.4 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	7.3	14 J Z	4.2 J Z	4.5 J Z	2.8 J Z	3.0 J Z	5.4 U
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	62	100	25	20	18	18	5.4 U
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	98	320	38	46	35	40	11 U
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.1 U	25 U	5.1 U	5.0 U	5.1 U	5.1 U	5.4 U

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-581-NBZ-SB-0.0-0.5	FDG2-SL-582-NBZ-SB-0.0-0.5	FDG2-SL-583-NBZ-SB-0.0-0.5	FDG2-SL-584-NBZ-SB-0.0-0.5	FDG2-SL-584-SA5D-SB-0.0-0.5	FDG2-SL-585-NBZ-SB-0.0-0.5	FDG2-SL-585-SA5D-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N
			Sample Date	05/22/2014	06/13/2014	06/12/2014	06/13/2014	05/21/2014	06/13/2014	05/21/2014
			SDG	PH196	PH233	PH231	PH233	PH193	PH233	PH193
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.3 U	5.2 U	5.0 U	5.0 U	5.2 UJ C	5.1 U	5.3 UJ C
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	2.6 J Z	3.7 J Z	5.0 U	5.0 U	3.1 J Z, C	3.5 J Z	5.3 UJ FD, C
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	8.6	22	9.5	22	30 J C	18	7.3 J FD, Q, C
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	21	73	23	36	48 J C	40	18 J FD, Q, C
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.3 U	5.2 U	5.0 U	5.0 U	5.2 UJ C	5.1 U	5.3 UJ C

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-586-NBZ-SB-0.0-0.5	FDG2-SL-586-SA5D-SB-0.0-0.5	FDG2-SL-612-SA5D-SB-0.0-0.5	FDG2-SL-613-SA5D-SB-0.0-0.5	FDG2-SL-614-SA5D-SB-0.0-0.5	FDG2-SL-623-SA8-SB-0.0-0.5	FDG2-SL-624-SA8-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N
			Sample Date	06/13/2014	05/21/2014	06/10/2014	06/10/2014	06/10/2014	05/21/2014	06/05/2014
			SDG	PH233	PH193	PH227	PH227	PH227	PH193	PH220
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.1 U	5.2 UJ C	26 U	5.2 U	5.1 U	5.4 UJ C	5.1 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	5.1 U	5.2 UJ C	20 J Z	9.1	2.1 J Z	2.8 J Z, C	2.1 J Z
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	12	11 J C	140	48	14	13 J C	12
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	30	22 J C	250	82	36	20 J C	21
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.1 U	5.2 UJ C	13 J Z	2.1 J Z	5.1 U	5.4 UJ C	5.1 U

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-625-SA8-SB-0.0-0.5	FDG2-SL-626-SA8-SB-0.0-0.5	FDG2-SL-628-SA8-SB-0.0-0.5	FDG2-SL-629-SA8-SB-0.0-0.5	FDG2-SL-630-SA8-SB-0.0-0.5	FDG2-SL-631-SA8-SB-0.0-0.5	FDG2-SL-632-SA8-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N
			Sample Date	06/05/2014	06/06/2014	05/22/2014	06/11/2014	06/10/2014	06/05/2014	06/09/2014
			SDG	PH220	PH221	PH196	PH229	PH227	PH220	PH224
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.1 U	5.1 U	5.2 U	5.1 U	5.2 U	5.3 U	5.1 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	5.1	2.3 J Z	4.2 J Z	2.8 J Z	3.3 J Z	4.5 J Z	5.6
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	49	8.5	27	24	21	25	41
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	86	15	51	46	35	46 J Q	63
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	3.8 J Z	5.1 U	5.2 U	5.1 U	5.2 U	5.3 U	5.1 U

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-691-SA6-SB-0.0-0.5	FDG2-SL-692-SA6-SB-0.0-0.5	FDG2-SL-693-SA6-SB-0.0-0.5	FDG2-SL-694-SA6-SB-0.0-0.5	FDG2-SL-695-SA6-SB-0.0-0.5	FDG2-SL-858-NBZ-SB-0.0-0.5	FDG2-SL-874-SA5A-SB-0.0-0.5
			Sample Type	N	N	N	N	N	FD	N
			Sample Date	06/06/2014	06/06/2014	06/06/2014	06/11/2014	06/11/2014	06/09/2014	05/20/2014
			SDG	PH221	PH221	PH221	PH229	PH229	PH224	PH188
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.0 U	5.1 U	5.0 U	5.0 U	5.0 U	5.1 U	5.3 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	2.2 J Z	5.1 U	5.0 U	2.3 J Z	5.0 U	5.3	5.3 U
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	13	10	12	9.9	9.7	42	5.3 U
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	19	23	24	26	27	66	11 U
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.0 U	5.1 U	5.0 U	5.0 U	5.0 U	5.1 U	5.3 U

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-875-SA5A-SB-0.0-0.5	FDG2-SL-876-SA5A-SB-0.0-0.5	FDG2-SL-877-SA5A-SB-0.0-0.5	FDG2-SL-878-SA5A-SB-0.0-0.5	FDG2-SL-885-SA5D-SB-0.0-0.5	FDG-SL-798-SA5B-SB-0.0-0.5	FDG-SL-841-SA5B-SB-0.0-0.5
			Sample Type	N	N	N	N	FD	N	N
			Sample Date	06/16/2014	06/16/2014	06/16/2014	06/11/2014	05/21/2014	05/07/2014	05/14/2014
			SDG	PH234	PH234	PH234	PH229	PH193	PH172	PH177
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.0 U	10 U	5.0 U	5.1 U	26 U	5.1 U	5.2 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	5.0 U	10 U	5.0 U	2.3 J Z	13 J FD, Z	5.1 U	5.2 U
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	16	32	6.7	24	150 J FD	19 J Q	5.2 U
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	58	90	17	53	350 J FD	38 J Q	10 U
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.0 U	10 U	5.0 U	5.1 U	26 U	5.1 U	5.2 U

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Trench samples collected at a discrete interval.

			Sample Name	FDG-SL-842-SA5B-SB-0.0-0.5	SL-838-SA5B-SB-0.0-0.5	SL-839-SA5B-SB-0.0-0.5	SL-840-SA5B-SB-0.0-0.5	SL-843-SA5B-SB-0.0-0.5	SL-503-SA5C-TR-0.5	SL-529-SA5B-TR-0.5	SL-534-SA8-TR-0.5	SL-548-SA8-TR-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	05/14/2014	01/13/2014	01/14/2014	01/13/2014	01/14/2014	05/29/2014	05/28/2014	05/19/2014	05/19/2014
			SDG	PH177	PH158	PH159	PH158	PH159	PH207	PH204	PH185	PH185
			Start Depth	0	0	0	0	0	0.5	0.5	0.5	0.5
			End Depth	0.5	0.5	0.5	0.5	0.5				
Analytic Method	CAS Number	Chemical Name	Unit									
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.2 U	5.3 U	5.3 U	5.3 U	5.6 U	5.3 U	5.2 U	5.2 U	5.5 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	5.2 U	5.3 U	5.3 U	5.3 U	5.6 U	4.3 J Z	5.2 U	5.2 U	5.5 U
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	4.9 J Z	5.3 U	5.3 U	7.1	7.0	20	33	4.6 J Z	6.0
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	9.8 J Z	11 U	11 U	15	11	35	83	11	17
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.2 U	5.3 U	5.3 U	5.3 U	5.6 U	5.3 U	5.2 U	5.2 U	5.5 U

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Trench samples collected at a discrete interval.

			Sample Name	SL-569-SA6-TR-0.5	SL-570-SA6-TR-0.5	SL-587-SA5A-TR-0.5	SL-605-SA5C-TR-0.5	SL-611-SA8-TR-0.5	SL-636-SA5A-TR-0.5	SL-646-SA5C-TR-0.5	SL-651-SA5C-TR-0.5	SL-653-SA5C-TR-0.5	SL-655-SA5C-TR-0.5
			Sample Type	N	N	N	N	N	N	N	N	N	N
			Sample Date	05/20/2014	05/20/2014	05/22/2014	05/29/2014	05/20/2014	05/23/2014	06/04/2014	05/30/2014	06/02/2014	06/04/2014
			SDG	PH189	PH189	PH195	PH207	PH189	PH199	PH217	PH209	PH212	PH217
			Start Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
			End Depth										
Analytic Method	CAS Number	Chemical Name	Unit										
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.1 U	5.2 U	10 U	5.3 U	5.4 U	5.1 U	5.1 U	5.2 U	5.1 U	5.3 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	5.1 U	5.2 U	10 U	2.3 J Z	5.4 U	5.1 U	5.1 U	5.2 U	5.1 U	5.3 U
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	5.1 U	7.5	29	10	42	13	5.6	10	5.1 U	3.5 J Z
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	10 U	19	87	16	56	43	11	18	10 U	5.0 J Z
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.1 U	5.2 U	10 U	5.3 U	5.4 U	5.1 U	5.1 U	5.2 U	5.1 U	5.3 U

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Trench samples collected at a discrete interval.

			Sample Name	SL-686-SA6-TR-0.5	SL-693-SA5B-TR-0.5	SL-699-SA5B-TR-0.5	SL-707-SA5B-TR-0.5	SL-730-SA5A-TR-0.5	FDG2-SL-1175-SA5A-SB-2.0-3.0	FDG2-SL-576-NBZ-SB-2.0-3.0	FDG2-SL-586-SA5D-SB-2.0-3.0
			Sample Type	N	N	N	N	N	FD	N	N
			Sample Date	05/21/2014	05/27/2014	05/28/2014	05/27/2014	05/22/2014	06/16/2014	06/10/2014	05/21/2014
			SDG	PH192	PH201	PH204	PH201	PH195	PH234	PH227	PH193
			Start Depth	0.5	0.5	0.5	0.5	0.5	2	2	2
			End Depth						3	3	3
Analytic Method	CAS Number	Chemical Name	Unit								
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.1 U	5.1 U	7.6	5.1 U	10 U	5.1 U	5.2 U	5.3 UJ C
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	3.1 J Z	5.1 U	36	5.1 U	10 U	5.1 U	5.2 U	5.3 UJ C
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	30	6.8	64	14	18	13 J FD	7.8	5.3 UJ C
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	55	14	65	20	50	36 J FD	21	11 UJ C
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.1 U	5.1 U	7.9	5.1 U	10 U	5.1 U	5.2 U	5.3 UJ C

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-875-SA5A-SB-2.0-3.0	SL-529-SA5B-TR-2.0	SL-570-SA6-TR-2.0	SL-569-SA6-TR-2.5	FDG2-SL-582-NBZ-SB-3.0-3.5	FDG2-SL-877-SA5A-SB-3.0-4.0	SL-529-SA5B-TR-3.0	SL-693-SA5B-TR-3.0	SL-699-SA5B-TR-3.0
				Sample Type	N	N	N	N	N	N	N	N	N
				Sample Date	06/16/2014	05/28/2014	05/20/2014	05/20/2014	06/13/2014	06/16/2014	05/28/2014	05/28/2014	05/28/2014
				SDG	PH234	PH204	PH189	PH189	PH233	PH234	PH204	PH204	PH204
				Start Depth	2	2	2	2.5	3	3	3	3	3
				End Depth	3				3.5	4			
Analytic Method	CAS Number	Chemical Name	Unit										
8015M	PHCC12C14	EFH (C12-C14)	mg/kg		10 U	5.4 U	5.3 U	5.3 U	5.5 U	5.1 U	5.4 U	5.2 U	5.3 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg		10 U	5.4 U	5.3 U	5.3 U	5.5 U	5.1 U	5.4 U	5.2 U	3.3 J Z
8015M	PHCC21C30	EFH (C21-C30)	mg/kg		33 J FD, Q	10	5.3 U	5.3 U	8.1	5.1 U	14	6.5	9.4
8015M	PHCC30C40	EFH (C30-C40)	mg/kg		85 J FD	14	11 U	11 U	24	10 U	33	13	13
8015M	PHCC8C11	EFH (C8-C11)	mg/kg		10 U	5.4 U	5.3 U	5.3 U	5.5 U	5.1 U	5.4 U	5.2 U	5.3 U

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Trench samples collected at a discrete interval.

			Sample Name	SL-707-SA5B-TR-3.0	SL-636-SA5A-TR-3.5	SL-693-SA5B-TR-3.5	FDG2-SL-1174-SA5A-SB-4.0-5.0	FDG2-SL-581-NBZ-SB-4.0-5.0	FDG2-SL-584-SA5D-SB-4.0-5.0	FDG2-SL-585-SA5D-SB-4.0-5.0	FDG2-SL-623-SA8-SB-4.0-5.0
			Sample Type	N	N	N	N	N	N	N	N
			Sample Date	05/27/2014	05/23/2014	05/27/2014	05/20/2014	05/22/2014	05/21/2014	05/21/2014	05/21/2014
			SDG	PH201	PH199	PH201	PH188	PH196	PH193	PH193	PH193
			Start Depth	3	3.5	3.5	4	4	4	4	4
			End Depth				5	5	5	5	5
Analytic Method	CAS Number	Chemical Name	Unit								
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.2 U	5.3 U	5.3 U	5.4 U	5.5 U	5.3 UJ C	5.7 UJ C	5.3 UJ C
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	5.2 U	5.3 U	5.3 U	5.4 U	5.5 U	5.3 UJ C	5.7 UJ C	5.3 UJ C
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	3.2 J Z	4.8 J Z	5.3 U	11	5.5 U	5.3 UJ C	5.7 UJ C	5.3 UJ C
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	10 U	18	11 U	21	11 U	11 UJ C	11 UJ C	11 UJ C
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.2 U	5.3 U	5.3 U	5.4 U	5.5 U	5.3 UJ C	5.7 UJ C	5.3 UJ C

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-626-SA8-SB-4.0-5.0	FDG2-SL-628-SA8-SB-4.0-5.0	FDG2-SL-630-SA8-SB-4.0-5.0	FDG2-SL-874-SA5A-SB-4.0-5.0	FDG2-SL-876-SA5A-SB-4.0-5.0	FDG2-SL-878-SA5A-SB-4.0-5.0	FDG2-SL-930-SA8-SB-4.0-5.0
			Sample Type	N	N	N	N	N	N	FD
			Sample Date	06/06/2014	05/22/2014	06/10/2014	05/20/2014	06/16/2014	06/11/2014	06/10/2014
			SDG	PH221	PH196	PH227	PH188	PH234	PH229	PH227
			Start Depth	4	4	4	4	4	4	4
			End Depth	5	5	5	5	5	5	5
Analytic Method	CAS Number	Chemical Name	Unit							
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	6.8	5.6 U	5.5 U	5.4 U	5.2 U	5.1 U	5.5 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	16	5.6 U	3.7 J Q, Z	5.4 U	5.2 U	5.1 U	4.8 J Z
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	69	15	26 J Q	16 J Q	5.2 U	13	35
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	35	28	42 J Q	31 J Q	10 U	28	61
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.3 U	5.6 U	5.5 U	5.4 U	5.2 U	5.1 U	5.5 U

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Trench samples collected at a discrete interval.

			Sample Name	FDG-SL-841-SA5B-SB-4.0-5.0	FDG-SL-842-SA5B-SB-4.0-5.0	SL-838-SA5B-SB-4.0-5.0	SL-839-SA5B-SB-4.0-5.0	SL-840-SA5B-SB-4.0-5.0	SL-843-SA5B-SB-4.0-5.0	FDG2-SL-631-SA8-SB-4.5-5.0	SL-503-SA5C-TR-5.0
			Sample Type	N	N	N	N	N	N	N	N
			Sample Date	05/14/2014	05/14/2014	01/13/2014	01/14/2014	01/13/2014	01/14/2014	06/05/2014	05/29/2014
			SDG	PH177	PH177	PH158	PH159	PH158	PH159	PH220	PH207
			Start Depth	4	4	4	4	4	4	4.5	5
			End Depth	5	5	5	5	5	5	5	
Analytic Method	CAS Number	Chemical Name	Unit								
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.5 U	5.3 U	5.5 U	5.5 U	5.5 U	5.7 U	5.5 U	5.6 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	5.5 U	5.3 U	5.5 U	5.5 U	5.5 U	5.7 U	7.5	5.6 U
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	3.7 J Z	5.6	5.5 U	5.5 U	5.5 U	4.8 J Z	36	5.6 U
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	9.3 J Z	12	11 U	11 U	11 U	11	80	11 U
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.5 U	5.3 U	5.5 U	5.5 U	5.5 U	5.7 U	5.5 U	5.6 U

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Trench samples collected at a discrete interval.

			Sample Name	SL-534-SA8-TR-5.0	SL-548-SA8-TR-5.0	SL-605-SA5C-TR-5.0	SL-611-SA8-TR-5.0	SL-646-SA5C-TR-5.0	SL-651-SA5C-TR-5.0	SL-653-SA5C-TR-5.0	SL-655-SA5C-TR-5.0	SL-686-SA6-TR-5.0	SL-693-SA5B-TR-5.0
			Sample Type	N	N	N	N	N	N	N	N	N	N
			Sample Date	05/19/2014	05/19/2014	05/29/2014	05/20/2014	06/04/2014	05/30/2014	06/02/2014	06/04/2014	05/21/2014	05/27/2014
			SDG	PH185	PH185	PH207	PH189	PH217	PH209	PH212	PH217	PH192	PH201
			Start Depth	5	5	5	5	5	5	5	5	5	5
			End Depth										
Analytic Method	CAS Number	Chemical Name	Unit										
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.3 U	5.8 U	5.4 U	5.5 U	5.2 U	5.2 U	5.1 U	5.2 U	5.3 U	5.3 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	5.3 U	5.8 U	5.4 U	5.5 U	5.2 U	5.2 U	5.1 U	5.2 U	5.3 U	5.3 U
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	5.3 U	5.8 UJ FD	8.5	6.1	2.3 J Z	4.6 J FD, Z	5.1 U	5.2 U	5.3 U	5.0 J Z
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	5.0 J Z	12 UJ FD	14	12	10 U	8.8 J FD, Q, Z	10 U	10 U	11 U	14
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.3 U	5.8 U	5.4 U	5.5 U	5.2 U	5.2 U	5.1 U	5.2 U	5.3 U	5.3 U

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Trench samples collected at a discrete interval.

			Sample Name	SL-848-SA8-TR-5.0	SL-951-SA5C-TR-5.0	SL-587-SA5A-TR-5.5	SL-887-SA5A-TR-5.5	SL-570-SA6-TR-6.0	SL-730-SA5A-TR-6.0	FDG2-SL-630-SA8-SB-7.0-8.0	FDG2-SL-631-SA8-SB-7.0-8.0	SL-840-SA5B-SB-7.0-8.0
			Sample Type	FD	FD	N	N	N	N	N	N	N
			Sample Date	05/19/2014	05/30/2014	05/22/2014	05/22/2014	05/20/2014	05/22/2014	06/10/2014	06/05/2014	01/13/2014
			SDG	PH185	PH209	PH195	PH195	PH189	PH195	PH227	PH220	PH158
			Start Depth	5	5	5.5	5.5	6	6	7	7	7
			End Depth							8	8	8
Analytic Method	CAS Number	Chemical Name	Unit									
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.7 U	5.2 U	5.5 U	5.5 U	5.4 U	5.4 U	5.4 U	6.0 U	5.8 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	5.7 U	5.2 U	5.5 U	5.5 U	5.4 U	5.4 U	3.4 J Z	2.9 J Z	5.8 U
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	2.9 J FD, Z	5.2 UJ FD	5.5 U	5.5 U	5.4 U	5.4 U	24	8.9	5.8 U
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	15 J FD	10 UJ FD	11 U	11 U	11 U	11 U	50	14	12 U
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.7 U	5.2 U	5.5 U	5.5 U	5.4 U	5.4 U	5.4 U	6.0 U	5.8 U

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Trench samples collected at a discrete interval.

			Sample Name	SL-843-SA5B-SB-7.0-8.0	SL-503-SA5C-TR-7.5	SL-636-SA5A-TR-7.5	SL-699-SA5B-TR-8.0	FDG2-SL-581-NBZ-SB-9.0-10.0	FDG2-SL-623-SA8-SB-9.0-10.0	FDG2-SL-628-SA8-SB-9.0-10.0	FDG-SL-841-SA5B-SB-9.0-10.0
			Sample Type	N	N	N	N	N	N	N	N
			Sample Date	01/14/2014	05/29/2014	05/23/2014	05/28/2014	05/22/2014	05/21/2014	05/22/2014	05/14/2014
			SDG	PH159	PH207	PH199	PH204	PH196	PH193	PH196	PH177
			Start Depth	7	7.5	7.5	8	9	9	9	9
			End Depth	8				10	10	10	10
Analytic Method	CAS Number	Chemical Name	Unit								
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.6 U	5.3 U	5.3 U	5.4 U	5.6 U	5.3 UJ C	5.3 U	5.5 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	5.6 U	5.3 U	5.3 U	5.4 U	5.6 U	5.3 UJ C	5.3 U	5.5 U
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	5.1 J Z	5.3 U	5.3 U	5.4 U	5.6 U	5.3 UJ C	5.3 U	5.5 U
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	17	11 U	11 U	11 U	11 U	11 UJ C	11 U	11 U
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.6 U	5.3 U	5.3 U	5.4 U	5.6 U	5.3 UJ C	5.3 U	5.5 U

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Trench samples collected at a discrete interval.

			Sample Name	SL-839-SA5B-SB-9.0-10.0	SL-548-SA8-TR-10.0	SL-605-SA5C-TR-10.0	SL-651-SA5C-TR-10.0	SL-653-SA5C-TR-10.0	SL-611-SA8-TR-10.5	SL-529-SA5B-TR-11.0	SL-686-SA6-TR-11.0	FDG2-SL-874-SA5A-SB-12.0-13.0
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	01/14/2014	05/19/2014	05/29/2014	05/30/2014	06/02/2014	05/20/2014	05/28/2014	05/21/2014	05/20/2014
			SDG	PH159	PH185	PH207	PH209	PH212	PH189	PH204	PH192	PH188
			Start Depth	9	10	10	10	10	10.5	11	11	12
			End Depth	10								13
Analytic Method	CAS Number	Chemical Name	Unit									
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.5 U	5.7 U	5.5 U	5.3 U	5.2 U	5.6 U	11 U	5.2 U	5.4 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	5.5 U	5.7 U	5.5 U	5.3 U	5.2 U	5.6 U	7.9 J Z	5.2 U	5.4 U
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	4.2 J Z	5.7 U	3.5 J Z	3.2 J Z	5.2 U	8.1	49	5.2 U	5.4 U
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	12	11 U	8.4 J Z	11 U	10 U	13	110	10 U	11 U
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.5 U	5.7 U	5.5 U	5.3 U	5.2 U	5.6 U	11 U	5.2 U	5.4 U

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-581-NBZ-SB-13.0-14.0	FDG2-SL-623-SA8-SB-14.0-15.0	FDG2-SL-628-SA8-SB-14.0-15.0	FDG-SL-836-SA5B-SB-15.0-16.0	SL-651-SA5C-TR-15.0	SL-653-SA5C-TR-15.0	SL-839-SA5B-SB-15.5-16.5
			Sample Type	N	N	N	N	N	N	N
			Sample Date	05/22/2014	05/21/2014	05/22/2014	05/13/2014	05/30/2014	06/02/2014	01/14/2014
			SDG	PH196	PH193	PH196	PH176	PH209	PH212	PH159
			Start Depth	13	14	14	15	15	15	15.5
			End Depth	14	15	15	16			16.5
Analytic Method	CAS Number	Chemical Name	Unit							
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.4 U	5.3 UJ C	5.3 U	5.9 U	5.3 U	5.2 U	5.8 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	5.4 U	5.3 UJ C	5.3 U	5.9 U	5.3 U	5.2 U	5.8 U
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	5.4 U	5.3 UJ C	4.1 J Z	3.4 J Z	5.3 U	6.3	4.6 J Z
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	11 U	11 UJ C	11 U	12 U	11 U	9.1 J Z	7.4 J Z
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.4 U	5.3 UJ C	5.3 U	5.9 U	5.3 U	5.2 U	4.5 J Z

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-623-SA8-SB-19.0-20.0	FDG-SL-836-SA5B-SB-19.0-20.0
			Sample Type	N	N
			Sample Date	05/21/2014	05/13/2014
			SDG	PH193	PH176
			Start Depth	19	19
			End Depth	20	20
Analytic Method	CAS Number	Chemical Name	Unit		
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.2 UJ C	26 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	5.2 UJ C	26 U
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	5.2 UJ C	130
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	10 UJ C	310
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.2 UJ C	26 U

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-558-NBZ-SB-0.0-0.5	FDG2-SL-559-NBZ-SB-0.0-0.5	FDG2-SL-560-NBZ-SB-0.0-0.5	FDG2-SL-561-NBZ-SB-0.0-0.5	FDG2-SL-562-NBZ-SB-0.0-0.5	FDG2-SL-563-NBZ-SB-0.0-0.5
				Sample Type	N	N	N	N	N	N
				Sample Date	06/09/2014	06/09/2014	06/11/2014	05/23/2014	06/12/2014	06/12/2014
				SDG	PH224	PH224	PH229	PH197	PH231	PH231
				Start Depth	0	0	0	0	0	0
				End Depth	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
8015M	PHCC12C14SILICA	EFH (C12-C14) w/ Silica Gel	mg/kg		5.1 UJ S, L	5.1 UJ L	5.1 UJ L	5.0 U	6.2 UJ L	5.1 UJ L
8015M	PHCC15C20SILICA	EFH (C15-C20) w/ Silica Gel	mg/kg		5.1 UJ S, L	5.1 UJ L	5.1 UJ L	5.0 U	6.2 UJ L	5.1 UJ L
8015M	PHCC21C30SILICA	EFH (C21-C30) w/ Silica Gel	mg/kg		4.1 J S, L, Z	5.1 UJ L	12 J L	16	2.6 J L, Z	5.1 UJ L
8015M	PHCC30C40SILICA	EFH (C30-C40) w/ Silica Gel	mg/kg		10 UJ FD, S	10 U	5.0 J Z	7.2 J Z	12 U	10 U
8015M	PHCC8C11SILICA	EFH (C8-C11) w/ Silica Gel	mg/kg		5.1 UJ S, Q, L	5.1 UJ L	5.1 UJ L	5.0 U	6.2 UJ L	5.1 UJ L

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-564-NBZ-SB-0.0-0.5	FDG2-SL-565-NBZ-SB-0.0-0.5	FDG2-SL-566-NBZ-SB-0.0-0.5	FDG2-SL-567-NBZ-SB-0.0-0.5	FDG2-SL-568-NBZ-SB-0.0-0.5	FDG2-SL-569-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N
			Sample Date	06/10/2014	06/10/2014	06/10/2014	06/17/2014	06/17/2014	06/12/2014
			SDG	PH227	PH227	PH227	PH235	PH235	PH231
			Start Depth	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit						
8015M	PHCC12C14SILICA	EFH (C12-C14) w/ Silica Gel	mg/kg	5.1 UJ L	5.1 UJ L	5.1 UJ L	5.1 U	5.3 UJ L	5.0 UJ S, L
8015M	PHCC15C20SILICA	EFH (C15-C20) w/ Silica Gel	mg/kg	5.1 UJ L	5.1 UJ L	5.5 J L	5.1 U	5.3 UJ L	5.0 UJ S, L
8015M	PHCC21C30SILICA	EFH (C21-C30) w/ Silica Gel	mg/kg	2.5 J L, Z	3.3 J L, Z	61 J L	3.1 J Z	4.9 J L, Z	5.0 UJ S, L
8015M	PHCC30C40SILICA	EFH (C30-C40) w/ Silica Gel	mg/kg	4.4 J Z	4.8 J Z	100	10 U	8.3 J L, Z	10 UJ S
8015M	PHCC8C11SILICA	EFH (C8-C11) w/ Silica Gel	mg/kg	5.1 UJ L	5.1 UJ L	5.1 UJ L	5.1 U	5.3 UJ L	5.0 UJ S, L

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-570-NBZ-SB-0.0-0.5	FDG2-SL-571-NBZ-SB-0.0-0.5	FDG2-SL-572-NBZ-SB-0.0-0.5	FDG2-SL-573-NBZ-SB-0.0-0.5	FDG2-SL-574-NBZ-SB-0.0-0.5	FDG2-SL-575-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N
			Sample Date	06/12/2014	06/11/2014	06/17/2014	06/18/2014	06/18/2014	06/18/2014
			SDG	PH231	PH229	PH235	PH237	PH237	PH237
			Start Depth	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit						
8015M	PHCC12C14SILICA	EFH (C12-C14) w/ Silica Gel	mg/kg	5.0 UJ L	5.3 UJ L	5.0 U	5.0 U	5.1 U	5.0 U
8015M	PHCC15C20SILICA	EFH (C15-C20) w/ Silica Gel	mg/kg	5.0 UJ L	5.3 UJ L	5.0 U	5.0 U	5.1 U	5.0 U
8015M	PHCC21C30SILICA	EFH (C21-C30) w/ Silica Gel	mg/kg	5.0 UJ L	12 J L	14	27	3.9 J Z	9.8
8015M	PHCC30C40SILICA	EFH (C30-C40) w/ Silica Gel	mg/kg	10 U	10 J Z	14	56	5.7 J Z	16
8015M	PHCC8C11SILICA	EFH (C8-C11) w/ Silica Gel	mg/kg	5.0 UJ L	5.3 UJ L	5.0 U	5.0 U	5.1 U	5.0 U

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-576-NBZ-SB-0.0-0.5	FDG2-SL-577-NBZ-SB-0.0-0.5	FDG2-SL-578-NBZ-SB-0.0-0.5	FDG2-SL-581-NBZ-SB-0.0-0.5	FDG2-SL-582-NBZ-SB-0.0-0.5	FDG2-SL-583-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N
			Sample Date	06/10/2014	06/11/2014	05/22/2014	05/22/2014	06/13/2014	06/12/2014
			SDG	PH227	PH229	PH196	PH196	PH233	PH231
			Start Depth	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit						
8015M	PHCC12C14SILICA	EFH (C12-C14) w/ Silica Gel	mg/kg	5.1 UJ L	5.1 UJ L	5.4 U	5.3 U	5.2 UJ L	5.0 UJ L
8015M	PHCC15C20SILICA	EFH (C15-C20) w/ Silica Gel	mg/kg	5.1 UJ L	5.1 UJ L	5.4 U	5.3 U	5.2 UJ L	5.0 UJ L
8015M	PHCC21C30SILICA	EFH (C21-C30) w/ Silica Gel	mg/kg	3.1 J L, Z	2.1 J L, Z	5.4 U	5.3 U	3.0 J L, Z	5.0 UJ L
8015M	PHCC30C40SILICA	EFH (C30-C40) w/ Silica Gel	mg/kg	10 U	10 U	11 U	11 U	6.2 J Z	10 U
8015M	PHCC8C11SILICA	EFH (C8-C11) w/ Silica Gel	mg/kg	5.1 UJ L	5.1 UJ L	5.4 U	5.3 U	5.2 UJ L	5.0 UJ L

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-584-NBZ-SB-0.0-0.5	FDG2-SL-584-SA5D-SB-0.0-0.5	FDG2-SL-585-NBZ-SB-0.0-0.5	FDG2-SL-585-SA5D-SB-0.0-0.5	FDG2-SL-586-NBZ-SB-0.0-0.5	FDG2-SL-586-SA5D-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N
			Sample Date	06/13/2014	05/21/2014	06/13/2014	05/21/2014	06/13/2014	05/21/2014
			SDG	PH233	PH193	PH233	PH193	PH233	PH193
			Start Depth	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit						
8015M	PHCC12C14SILICA	EFH (C12-C14) w/ Silica Gel	mg/kg	5.0 UJ S, L	5.2 U	5.1 UJ S, L	5.3 U	5.1 UJ S, L	5.2 U
8015M	PHCC15C20SILICA	EFH (C15-C20) w/ Silica Gel	mg/kg	5.0 UJ S, L	5.2 U	5.1 UJ S, L	5.3 U	5.1 UJ S, L	5.2 U
8015M	PHCC21C30SILICA	EFH (C21-C30) w/ Silica Gel	mg/kg	6.8 J S, L	21	5.1 UJ S, L	2.7 J FD, Q, Z	5.1 UJ S, L	5.2 U
8015M	PHCC30C40SILICA	EFH (C30-C40) w/ Silica Gel	mg/kg	10 UJ S	25	10 UJ S	5.7 J FD, Q, Z	10 UJ S	10 U
8015M	PHCC8C11SILICA	EFH (C8-C11) w/ Silica Gel	mg/kg	5.0 UJ S, L	5.2 U	5.1 UJ S, L	5.3 U	5.1 UJ S, L	5.2 U

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-612-SA5D-SB-0.0-0.5	FDG2-SL-613-SA5D-SB-0.0-0.5	FDG2-SL-614-SA5D-SB-0.0-0.5	FDG2-SL-623-SA8-SB-0.0-0.5	FDG2-SL-624-SA8-SB-0.0-0.5	FDG2-SL-625-SA8-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N
			Sample Date	06/10/2014	06/10/2014	06/10/2014	05/21/2014	06/05/2014	06/05/2014
			SDG	PH227	PH227	PH227	PH193	PH220	PH220
			Start Depth	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit						
8015M	PHCC12C14SILICA	EFH (C12-C14) w/ Silica Gel	mg/kg	5.1 UJ L	5.2 UJ L	5.1 UJ L	5.4 U	5.1 UJ L	5.1 UJ L
8015M	PHCC15C20SILICA	EFH (C15-C20) w/ Silica Gel	mg/kg	5.1 UJ L	5.2 UJ L	5.1 UJ L	5.4 U	5.1 UJ L	5.1 UJ L
8015M	PHCC21C30SILICA	EFH (C21-C30) w/ Silica Gel	mg/kg	10 J L	2.2 J L, Z	2.8 J L, Z	5.4 U	5.1 U	3.9 J Z
8015M	PHCC30C40SILICA	EFH (C30-C40) w/ Silica Gel	mg/kg	26	4.2 J Z	8.2 J Z	11 U	10 U	8.3 J Z
8015M	PHCC8C11SILICA	EFH (C8-C11) w/ Silica Gel	mg/kg	5.1 UJ L	5.2 UJ L	5.1 UJ L	5.4 U	5.1 UJ L	5.1 UJ L

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-626-SA8-SB-0.0-0.5	FDG2-SL-628-SA8-SB-0.0-0.5	FDG2-SL-629-SA8-SB-0.0-0.5	FDG2-SL-630-SA8-SB-0.0-0.5	FDG2-SL-631-SA8-SB-0.0-0.5	FDG2-SL-632-SA8-SB-0.0-0.5	FDG2-SL-691-SA6-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N
			Sample Date	06/06/2014	05/22/2014	06/11/2014	06/10/2014	06/05/2014	06/09/2014	06/06/2014
			SDG	PH221	PH196	PH229	PH227	PH220	PH224	PH221
			Start Depth	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
8015M	PHCC12C14SILICA	EFH (C12-C14) w/ Silica Gel	mg/kg	5.1 UJ L	5.2 U	5.1 UJ L	5.2 UJ L	5.3 UJ L	5.1 UJ S, L	5.0 UJ L
8015M	PHCC15C20SILICA	EFH (C15-C20) w/ Silica Gel	mg/kg	5.1 UJ L	5.2 U	5.1 UJ L	5.2 UJ L	5.3 UJ L	5.1 UJ S, L	5.0 UJ L
8015M	PHCC21C30SILICA	EFH (C21-C30) w/ Silica Gel	mg/kg	5.1 U	3.9 J Z	3.8 J L, Z	3.3 J L, Z	2.3 J Z	4.2 J S, L, Z	5.0 U
8015M	PHCC30C40SILICA	EFH (C30-C40) w/ Silica Gel	mg/kg	10 U	5.5 J Z	10 U	5.2 J Z	4.6 J Z	4.3 J S, Z	10 U
8015M	PHCC8C11SILICA	EFH (C8-C11) w/ Silica Gel	mg/kg	5.1 UJ L	5.2 U	5.1 UJ L	5.2 UJ L	5.3 UJ L	5.1 UJ S, L	5.0 UJ L

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-692-SA6-SB-0.0-0.5	FDG2-SL-693-SA6-SB-0.0-0.5	FDG2-SL-694-SA6-SB-0.0-0.5	FDG2-SL-695-SA6-SB-0.0-0.5	FDG2-SL-858-NBZ-SB-0.0-0.5	FDG2-SL-874-SA5A-SB-0.0-0.5
				Sample Type	N	N	N	N	FD	N
				Sample Date	06/06/2014	06/06/2014	06/11/2014	06/11/2014	06/09/2014	05/20/2014
				SDG	PH221	PH221	PH229	PH229	PH224	PH188
				Start Depth	0	0	0	0	0	0
				End Depth	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit							
8015M	PHCC12C14SILICA	EFH (C12-C14) w/ Silica Gel	mg/kg		5.1 UJ L	5.0 UJ L	5.0 UJ L	5.0 UJ L	5.1 UJ S, L	5.3 U
8015M	PHCC15C20SILICA	EFH (C15-C20) w/ Silica Gel	mg/kg		5.1 UJ L	5.0 UJ L	5.0 UJ L	5.0 UJ L	5.1 UJ S, L	5.3 U
8015M	PHCC21C30SILICA	EFH (C21-C30) w/ Silica Gel	mg/kg		5.1 U	3.4 J Z	5.0 UJ L	5.0 UJ L	5.0 J S, L, Z	5.3 U
8015M	PHCC30C40SILICA	EFH (C30-C40) w/ Silica Gel	mg/kg		10 U	10 U	10 U	10 U	5.4 J FD, S, Z	11 U
8015M	PHCC8C11SILICA	EFH (C8-C11) w/ Silica Gel	mg/kg		5.1 UJ L	5.0 UJ L	5.0 UJ L	5.0 UJ L	5.1 UJ S, L	5.3 U

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-875-SA5A-SB-0.0-0.5	FDG2-SL-876-SA5A-SB-0.0-0.5	FDG2-SL-877-SA5A-SB-0.0-0.5	FDG2-SL-878-SA5A-SB-0.0-0.5	FDG2-SL-885-SA5D-SB-0.0-0.5	FDG-SL-798-SA5B-SB-0.0-0.5
			Sample Type	N	N	N	N	FD	N
			Sample Date	06/16/2014	06/16/2014	06/16/2014	06/11/2014	05/21/2014	05/07/2014
			SDG	PH234	PH234	PH234	PH229	PH193	PH172
			Start Depth	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit						
8015M	PHCC12C14SILICA	EFH (C12-C14) w/ Silica Gel	mg/kg	5.0 U	5.0 U	5.0 UJ L	5.1 UJ L	10 U	5.1 U
8015M	PHCC15C20SILICA	EFH (C15-C20) w/ Silica Gel	mg/kg	5.0 U	5.0 U	5.0 UJ L	5.1 UJ L	10 U	5.1 U
8015M	PHCC21C30SILICA	EFH (C21-C30) w/ Silica Gel	mg/kg	5.8	16	5.0 UJ L	6.5 J L	55 J FD	8.5 J Q
8015M	PHCC30C40SILICA	EFH (C30-C40) w/ Silica Gel	mg/kg	17	25	10 UJ L	4.6 J Z	100 J FD	8.9 J Q, Z
8015M	PHCC8C11SILICA	EFH (C8-C11) w/ Silica Gel	mg/kg	5.0 U	5.0 U	5.0 UJ L	5.1 UJ L	10 U	5.1 U

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Trench samples collected at a discrete interval.

				Sample Name	FDG-SL-841-SA5B-SB-0.0-0.5	FDG-SL-842-SA5B-SB-0.0-0.5	SL-503-SA5C-TR-0.5	SL-529-SA5B-TR-0.5	SL-534-SA8-TR-0.5	SL-548-SA8-TR-0.5	SL-569-SA6-TR-0.5	SL-570-SA6-TR-0.5	SL-587-SA5A-TR-0.5
				Sample Type	N	N	N	N	N	N	N	N	N
				Sample Date	05/14/2014	05/14/2014	05/29/2014	05/28/2014	05/19/2014	05/19/2014	05/20/2014	05/20/2014	05/22/2014
				SDG	PH177	PH177	PH207	PH204	PH185	PH185	PH189	PH189	PH195
				Start Depth	0	0	0.5	0.5	0.5	0.5	0.5	0.5	0.5
				End Depth	0.5	0.5							
Analytic Method	CAS Number	Chemical Name	Unit										
8015M	PHCC12C14SILICA	EFH (C12-C14) w/ Silica Gel	mg/kg	5.2 UJ L	5.2 UJ L	5.3 UJ L	5.2 UJ L	5.2 UJ L	5.5 UJ S, L	5.1 U	5.2 U	5.2 U
8015M	PHCC15C20SILICA	EFH (C15-C20) w/ Silica Gel	mg/kg	5.2 UJ L	5.2 UJ L	5.3 UJ L	5.2 UJ L	5.2 UJ L	5.5 UJ S, L	5.1 U	5.2 U	5.2 U
8015M	PHCC21C30SILICA	EFH (C21-C30) w/ Silica Gel	mg/kg	5.2 UJ L	2.3 J L, Z	5.3 UJ L	18 J L	5.2 UJ L	5.5 UJ S, L	5.1 U	5.2 U	15
8015M	PHCC30C40SILICA	EFH (C30-C40) w/ Silica Gel	mg/kg	10 U	10 U	11 U	40	10 U	11 UJ S	10 U	10 U	37
8015M	PHCC8C11SILICA	EFH (C8-C11) w/ Silica Gel	mg/kg	5.2 UJ L	5.2 UJ L	5.3 UJ L	5.2 UJ L	5.2 UJ L	5.5 UJ S, L	5.1 U	5.2 U	5.2 U

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Trench samples collected at a discrete interval.

				Sample Name	SL-605-SA5C-TR-0.5	SL-611-SA8-TR-0.5	SL-636-SA5A-TR-0.5	SL-646-SA5C-TR-0.5	SL-651-SA5C-TR-0.5	SL-653-SA5C-TR-0.5	SL-655-SA5C-TR-0.5	SL-686-SA6-TR-0.5	SL-693-SA5B-TR-0.5	SL-699-SA5B-TR-0.5
				Sample Type	N	N	N	N	N	N	N	N	N	N
				Sample Date	05/29/2014	05/20/2014	05/23/2014	06/04/2014	05/30/2014	06/02/2014	06/04/2014	05/21/2014	05/27/2014	05/28/2014
				SDG	PH207	PH189	PH199	PH217	PH209	PH212	PH217	PH192	PH201	PH204
				Start Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
				End Depth										
Analytic Method	CAS Number	Chemical Name	Unit											
8015M	PHCC12C14SILICA	EFH (C12-C14) w/ Silica Gel	mg/kg		5.3 UJ S, L	5.4 U	5.1 U	5.1 UJ L	5.2 U	5.1 U	5.3 UJ L	5.1 U	5.1 UJ S, L	4.6 J L, Z
8015M	PHCC15C20SILICA	EFH (C15-C20) w/ Silica Gel	mg/kg		5.3 UJ S, L	5.4 U	5.1 U	5.1 UJ L	5.2 U	5.1 U	5.3 UJ L	5.1 U	5.1 UJ S, L	16 J L
8015M	PHCC21C30SILICA	EFH (C21-C30) w/ Silica Gel	mg/kg		3.9 J S, L, Z	29	6.0	5.1 U	5.2 U	5.1 U	5.3 U	12	5.1 UJ S, L	23 J L
8015M	PHCC30C40SILICA	EFH (C30-C40) w/ Silica Gel	mg/kg		5.1 J S, Z	30	14	10 U	10 U	10 U	11 U	10	10 UJ S	22
8015M	PHCC8C11SILICA	EFH (C8-C11) w/ Silica Gel	mg/kg		5.3 UJ S, L	5.4 U	5.1 U	5.1 UJ L	5.2 UJ L	5.1 UJ L	5.3 UJ L	5.1 U	5.1 UJ S, L	5.6 J L

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Trench samples collected at a discrete interval.

				Sample Name	SL-707-SA5B-TR-0.5	SL-730-SA5A-TR-0.5	FDG2-SL-1175-SA5A-SB-2.0-3.0	FDG2-SL-576-NBZ-SB-2.0-3.0	FDG2-SL-586-SA5D-SB-2.0-3.0	FDG2-SL-875-SA5A-SB-2.0-3.0	SL-529-SA5B-TR-2.0	SL-570-SA6-TR-2.0
				Sample Type	N	N	FD	N	N	N	N	N
				Sample Date	05/27/2014	05/22/2014	06/16/2014	06/10/2014	05/21/2014	06/16/2014	05/28/2014	05/20/2014
				SDG	PH201	PH195	PH234	PH227	PH193	PH234	PH204	PH189
				Start Depth	0.5	0.5	2	2	2	2	2	2
				End Depth			3	3	3	3		
Analytic Method	CAS Number	Chemical Name	Unit									
8015M	PHCC12C14SILICA	EFH (C12-C14) w/ Silica Gel	mg/kg	5.1 UJ L	5.1 U	5.1 U	5.2 UJ L	5.3 U	5.1 U	5.4 UJ S, L	5.3 U
8015M	PHCC15C20SILICA	EFH (C15-C20) w/ Silica Gel	mg/kg	5.1 UJ L	5.1 U	5.1 U	5.2 UJ L	5.3 U	5.1 U	5.4 UJ S, L	5.3 U
8015M	PHCC21C30SILICA	EFH (C21-C30) w/ Silica Gel	mg/kg	5.1 UJ L	2.1 J Z	3.6 J FD, Z	5.2 UJ L	5.3 U	26 J FD, Q	3.2 J S, L, Z	5.3 U
8015M	PHCC30C40SILICA	EFH (C30-C40) w/ Silica Gel	mg/kg	10 U	10 U	14 J FD	10 U	11 U	67 J FD	5.2 J S, Z	11 U
8015M	PHCC8C11SILICA	EFH (C8-C11) w/ Silica Gel	mg/kg	5.1 UJ L	5.1 U	5.1 U	5.2 UJ L	5.3 U	5.1 U	5.4 UJ S, L	5.3 U

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Trench samples collected at a discrete interval.

			Sample Name	SL-569-SA6-TR-2.5	FDG2-SL-582-NBZ-SB-3.0-3.5	FDG2-SL-877-SA5A-SB-3.0-4.0	SL-529-SA5B-TR-3.0	SL-693-SA5B-TR-3.0	SL-699-SA5B-TR-3.0	SL-707-SA5B-TR-3.0	SL-636-SA5A-TR-3.5	SL-693-SA5B-TR-3.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	05/20/2014	06/13/2014	06/16/2014	05/28/2014	05/28/2014	05/28/2014	05/27/2014	05/23/2014	05/27/2014
			SDG	PH189	PH233	PH234	PH204	PH204	PH204	PH201	PH199	PH201
			Start Depth	2.5	3	3	3	3	3	3	3.5	3.5
			End Depth		3.5	4						
Analytic Method	CAS Number	Chemical Name	Unit									
8015M	PHCC12C14SILICA	EFH (C12-C14) w/ Silica Gel	mg/kg	5.3 U	5.5 UJ S, L	5.1 U	5.4 UJ L	5.2 UJ S, L	5.3 UJ L	5.2 UJ L	5.3 U	5.3 UJ L
8015M	PHCC15C20SILICA	EFH (C15-C20) w/ Silica Gel	mg/kg	5.3 U	5.5 UJ S, L	5.1 U	5.4 UJ L	5.2 UJ S, L	5.3 UJ L	5.2 UJ L	5.3 U	5.3 UJ L
8015M	PHCC21C30SILICA	EFH (C21-C30) w/ Silica Gel	mg/kg	5.3 U	5.5 UJ S, L	5.1 U	7.7 J L	5.2 UJ S, L	5.3 UJ L	5.2 UJ L	5.3 U	5.3 UJ L
8015M	PHCC30C40SILICA	EFH (C30-C40) w/ Silica Gel	mg/kg	11 U	11 UJ S	10 U	16	10 UJ S	11 U	10 U	11 U	11 U
8015M	PHCC8C11SILICA	EFH (C8-C11) w/ Silica Gel	mg/kg	5.3 U	5.5 UJ S, L	5.1 U	5.4 UJ L	5.2 UJ S, L	5.3 UJ L	5.2 UJ L	5.3 U	5.3 UJ L

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Trench samples collected at a discrete interval.

				Sample Name	FDG2-SL-1174-SA5A-SB-4.0-5.0	FDG2-SL-581-NBZ-SB-4.0-5.0	FDG2-SL-584-SA5D-SB-4.0-5.0	FDG2-SL-585-SA5D-SB-4.0-5.0	FDG2-SL-623-SA8-SB-4.0-5.0	FDG2-SL-626-SA8-SB-4.0-5.0
				Sample Type	N	N	N	N	N	N
				Sample Date	05/20/2014	05/22/2014	05/21/2014	05/21/2014	05/21/2014	06/06/2014
				SDG	PH188	PH196	PH193	PH193	PH193	PH221
				Start Depth	4	4	4	4	4	4
				End Depth	5	5	5	5	5	5
Analytic Method	CAS Number	Chemical Name	Unit							
8015M	PHCC12C14SILICA	EFH (C12-C14) w/ Silica Gel	mg/kg	5.4 U	5.5 U	5.3 U	5.7 U	5.3 U	3.3 J L, Z
8015M	PHCC15C20SILICA	EFH (C15-C20) w/ Silica Gel	mg/kg	5.4 U	5.5 U	5.3 U	5.7 U	5.3 U	5.1 J L, Z
8015M	PHCC21C30SILICA	EFH (C21-C30) w/ Silica Gel	mg/kg	5.4 U	5.5 U	5.3 U	5.7 U	5.3 U	5.3 U
8015M	PHCC30C40SILICA	EFH (C30-C40) w/ Silica Gel	mg/kg	11 U	11 U	11 U	11 U	11 U	11 U
8015M	PHCC8C11SILICA	EFH (C8-C11) w/ Silica Gel	mg/kg	5.4 U	5.5 U	5.3 U	5.7 U	5.3 U	5.3 UJ L

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-628-SA8-SB-4.0-5.0	FDG2-SL-630-SA8-SB-4.0-5.0	FDG2-SL-874-SA5A-SB-4.0-5.0	FDG2-SL-876-SA5A-SB-4.0-5.0	FDG2-SL-878-SA5A-SB-4.0-5.0	FDG2-SL-930-SA8-SB-4.0-5.0
			Sample Type	N	N	N	N	N	FD
			Sample Date	05/22/2014	06/10/2014	05/20/2014	06/16/2014	06/11/2014	06/10/2014
			SDG	PH196	PH227	PH188	PH234	PH229	PH227
			Start Depth	4	4	4	4	4	4
			End Depth	5	5	5	5	5	5
Analytic Method	CAS Number	Chemical Name	Unit						
8015M	PHCC12C14SILICA	EFH (C12-C14) w/ Silica Gel	mg/kg	5.6 U	5.5 UJ L	5.4 U	5.2 U	5.1 UJ L	5.5 UJ L
8015M	PHCC15C20SILICA	EFH (C15-C20) w/ Silica Gel	mg/kg	5.6 U	5.5 UJ L	5.4 U	5.2 U	5.1 UJ L	5.5 UJ L
8015M	PHCC21C30SILICA	EFH (C21-C30) w/ Silica Gel	mg/kg	3.7 J Z	14 J Q, L	5.4 U	5.2 U	2.1 J L, Z	19 J L
8015M	PHCC30C40SILICA	EFH (C30-C40) w/ Silica Gel	mg/kg	4.6 J Z	14 J Q	11 U	10 U	10 U	21
8015M	PHCC8C11SILICA	EFH (C8-C11) w/ Silica Gel	mg/kg	5.6 U	5.5 UJ L	5.4 U	5.2 U	5.1 UJ L	5.5 UJ L

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Trench samples collected at a discrete interval.

				Sample Name	FDG-SL-841-SA5B-SB-4.0-5.0	FDG-SL-842-SA5B-SB-4.0-5.0	FDG2-SL-631-SA8-SB-4.5-5.0	SL-503-SA5C-TR-5.0	SL-534-SA8-TR-5.0	SL-548-SA8-TR-5.0	SL-605-SA5C-TR-5.0	SL-611-SA8-TR-5.0
				Sample Type	N	N	N	N	N	N	N	N
				Sample Date	05/14/2014	05/14/2014	06/05/2014	05/29/2014	05/19/2014	05/19/2014	05/29/2014	05/20/2014
				SDG	PH177	PH177	PH220	PH207	PH185	PH185	PH207	PH189
				Start Depth	4	4	4.5					
				End Depth	5	5	5	5	5	5	5	5
Analytic Method	CAS Number	Chemical Name	Unit									
8015M	PHCC12C14SILICA	EFH (C12-C14) w/ Silica Gel	mg/kg	5.5 UJ L	5.3 UJ S, L	5.5 UJ L	5.6 UJ S, L	5.3 UJ L	5.8 UJ S, L	5.4 UJ L	5.5 U
8015M	PHCC15C20SILICA	EFH (C15-C20) w/ Silica Gel	mg/kg	5.5 UJ L	5.3 UJ S, L	5.5 UJ L	5.6 UJ S, L	5.3 UJ L	5.8 UJ S, L	5.4 UJ L	5.5 U
8015M	PHCC21C30SILICA	EFH (C21-C30) w/ Silica Gel	mg/kg	5.5 UJ L	5.3 UJ S, L	3.0 J Z	5.6 UJ S, L	5.3 UJ L	5.8 UJ S, L	3.5 J L, Z	5.5 U
8015M	PHCC30C40SILICA	EFH (C30-C40) w/ Silica Gel	mg/kg	11 U	11 UJ S	7.4 J Z	11 UJ S	11 U	12 UJ S	5.0 J Z	11 U
8015M	PHCC8C11SILICA	EFH (C8-C11) w/ Silica Gel	mg/kg	5.5 UJ L	5.3 UJ S, L	5.5 UJ L	5.6 UJ S, L	5.3 UJ L	5.8 UJ S, L	5.4 UJ L	5.5 U

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Trench samples collected at a discrete interval.

				Sample Name	SL-646-SA5C-TR-5.0	SL-651-SA5C-TR-5.0	SL-653-SA5C-TR-5.0	SL-655-SA5C-TR-5.0	SL-686-SA6-TR-5.0	SL-693-SA5B-TR-5.0	SL-848-SA8-TR-5.0	SL-951-SA5C-TR-5.0	SL-587-SA5A-TR-5.5	SL-887-SA5A-TR-5.5
				Sample Type	N	N	N	N	N	N	FD	FD	N	N
				Sample Date	06/04/2014	05/30/2014	06/02/2014	06/04/2014	05/21/2014	05/27/2014	05/19/2014	05/30/2014	05/22/2014	05/22/2014
				SDG	PH217	PH209	PH212	PH217	PH192	PH201	PH185	PH209	PH195	PH195
				Start Depth	5	5	5	5	5	5	5	5	5.5	5.5
				End Depth										
Analytic Method	CAS Number	Chemical Name	Unit											
8015M	PHCC12C14SILICA	EFH (C12-C14) w/ Silica Gel	mg/kg	5.2 UJ L	5.2 U	5.1 U	5.2 UJ L	5.3 U	5.3 UJ L	5.7 UJ S, L	5.2 U	5.5 U	5.5 U
8015M	PHCC15C20SILICA	EFH (C15-C20) w/ Silica Gel	mg/kg	5.2 UJ L	5.2 U	5.1 U	5.2 UJ L	5.3 U	5.3 UJ L	5.7 UJ S, L	5.2 U	5.5 U	5.5 U
8015M	PHCC21C30SILICA	EFH (C21-C30) w/ Silica Gel	mg/kg	5.2 U	5.2 U	5.1 U	5.2 U	5.3 U	5.3 UJ L	5.7 UJ S, L	5.2 U	5.5 U	5.5 U
8015M	PHCC30C40SILICA	EFH (C30-C40) w/ Silica Gel	mg/kg	10 U	10 U	10 U	10 U	11 U	11 U	11 UJ S	10 U	11 U	11 U
8015M	PHCC8C11SILICA	EFH (C8-C11) w/ Silica Gel	mg/kg	5.2 UJ L	5.2 UJ L	5.1 UJ L	5.2 UJ L	5.3 U	5.3 UJ L	5.7 UJ S, L	5.2 UJ L	5.5 U	5.5 U

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Trench samples collected at a discrete interval.

				Sample Name	SL-570-SA6-TR-6.0	SL-730-SA5A-TR-6.0	FDG2-SL-630-SA8-SB-7.0-8.0	FDG2-SL-631-SA8-SB-7.0-8.0	SL-503-SA5C-TR-7.5	SL-636-SA5A-TR-7.5	SL-699-SA5B-TR-8.0	FDG2-SL-581-NBZ-SB-9.0-10.0
				Sample Type	N	N	N	N	N	N	N	N
				Sample Date	05/20/2014	05/22/2014	06/10/2014	06/05/2014	05/29/2014	05/23/2014	05/28/2014	05/22/2014
				SDG	PH189	PH195	PH227	PH220	PH207	PH199	PH204	PH196
				Start Depth	6	6	7	7	7.5	7.5	8	9
				End Depth			8	8				10
Analytic Method	CAS Number	Chemical Name	Unit									
8015M	PHCC12C14SILICA	EFH (C12-C14) w/ Silica Gel	mg/kg	5.4 U	5.4 U	5.4 UJ L	6.0 UJ L	5.3 UJ S, L	5.3 U	5.4 UJ L	5.6 UJ S
8015M	PHCC15C20SILICA	EFH (C15-C20) w/ Silica Gel	mg/kg	5.4 U	5.4 U	5.4 UJ L	6.0 UJ L	5.3 UJ S, L	5.3 U	5.4 UJ L	5.6 UJ S
8015M	PHCC21C30SILICA	EFH (C21-C30) w/ Silica Gel	mg/kg	5.4 U	5.4 U	8.8 J L	6.0 U	5.3 UJ S, L	5.3 U	5.4 UJ L	5.6 UJ S
8015M	PHCC30C40SILICA	EFH (C30-C40) w/ Silica Gel	mg/kg	11 U	11 U	11	12 U	11 UJ S	11 U	11 U	11 UJ S
8015M	PHCC8C11SILICA	EFH (C8-C11) w/ Silica Gel	mg/kg	5.4 U	5.4 U	5.4 UJ L	6.0 UJ L	5.3 UJ S, L	5.3 U	5.4 UJ L	5.6 UJ S

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-623-SA8-SB-9.0-10.0	FDG2-SL-628-SA8-SB-9.0-10.0	FDG-SL-841-SA5B-SB-9.0-10.0	SL-548-SA8-TR-10.0	SL-605-SA5C-TR-10.0	SL-651-SA5C-TR-10.0	SL-653-SA5C-TR-10.0	SL-611-SA8-TR-10.5
			Sample Type	N	N	N	N	N	N	N	N
			Sample Date	05/21/2014	05/22/2014	05/14/2014	05/19/2014	05/29/2014	05/30/2014	06/02/2014	05/20/2014
			SDG	PH193	PH196	PH177	PH185	PH207	PH209	PH212	PH189
			Start Depth	9	9	9	10	10	10	10	10.5
			End Depth	10	10	10					
Analytic Method	CAS Number	Chemical Name	Unit								
8015M	PHCC12C14SILICA	EFH (C12-C14) w/ Silica Gel	mg/kg	5.3 U	5.3 U	5.5 UJ L	5.7 UJ S, L	5.5 UJ S, L	5.3 U	5.2 U	5.6 UJ S
8015M	PHCC15C20SILICA	EFH (C15-C20) w/ Silica Gel	mg/kg	5.3 U	5.3 U	5.5 UJ L	5.7 UJ S, L	5.5 UJ S, L	5.3 U	5.2 U	5.6 UJ S
8015M	PHCC21C30SILICA	EFH (C21-C30) w/ Silica Gel	mg/kg	5.3 U	5.3 U	5.5 UJ L	5.7 UJ S, L	5.5 UJ S, L	5.3 U	5.2 U	5.6 UJ S
8015M	PHCC30C40SILICA	EFH (C30-C40) w/ Silica Gel	mg/kg	11 U	11 U	11 U	11 UJ S	11 UJ S	11 U	10 U	11 UJ S
8015M	PHCC8C11SILICA	EFH (C8-C11) w/ Silica Gel	mg/kg	5.3 U	5.3 U	5.5 UJ L	5.7 UJ S, L	5.5 UJ S, L	5.3 UJ L	5.2 UJ L	5.6 UJ S

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Trench samples collected at a discrete interval.

				Sample Name	SL-529-SA5B-TR-11.0	SL-686-SA6-TR-11.0	FDG2-SL-874-SA5A-SB-12.0-13.0	FDG2-SL-581-NBZ-SB-13.0-14.0	FDG2-SL-623-SA8-SB-14.0-15.0	FDG2-SL-628-SA8-SB-14.0-15.0	FDG-SL-836-SA5B-SB-15.0-16.0
				Sample Type	N	N	N	N	N	N	N
				Sample Date	05/28/2014	05/21/2014	05/20/2014	05/22/2014	05/21/2014	05/22/2014	05/13/2014
				SDG	PH204	PH192	PH188	PH196	PH193	PH196	PH176
				Start Depth	11	11	12	13	14	14	15
				End Depth			13	14	15	15	16
Analytic Method	CAS Number	Chemical Name	Unit								
8015M	PHCC12C14SILICA	EFH (C12-C14) w/ Silica Gel	mg/kg	5.5 UJ L	5.2 U	5.4 U	5.4 U	5.3 U	5.3 U	5.9 UJ S, L	
8015M	PHCC15C20SILICA	EFH (C15-C20) w/ Silica Gel	mg/kg	4.6 J L, Z	5.2 U	5.4 U	5.4 U	5.3 U	5.3 U	5.9 UJ S, L	
8015M	PHCC21C30SILICA	EFH (C21-C30) w/ Silica Gel	mg/kg	28 J L	5.2 U	5.4 U	5.4 U	5.3 U	2.4 J Z	5.9 UJ S, L	
8015M	PHCC30C40SILICA	EFH (C30-C40) w/ Silica Gel	mg/kg	58	10 U	11 U	11 U	11 U	11 U	12 UJ S	
8015M	PHCC8C11SILICA	EFH (C8-C11) w/ Silica Gel	mg/kg	5.5 UJ L	5.2 U	5.4 U	5.4 U	5.3 U	5.3 U	5.9 UJ S, L	

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Trench samples collected at a discrete interval.

			Sample Name	SL-651-SA5C-TR-15.0	SL-653-SA5C-TR-15.0	FDG2-SL-623-SA8-SB-19.0-20.0	FDG-SL-836-SA5B-SB-19.0-20.0
			Sample Type	N	N	N	N
			Sample Date	05/30/2014	06/02/2014	05/21/2014	05/13/2014
			SDG	PH209	PH212	PH193	PH176
			Start Depth	15	15	19	19
			End Depth			20	20
Analytic Method	CAS Number	Chemical Name	Unit				
8015M	PHCC12C14SILICA	EFH (C12-C14) w/ Silica Gel	mg/kg	5.3 U	5.2 U	5.2 U	11 UJ L
8015M	PHCC15C20SILICA	EFH (C15-C20) w/ Silica Gel	mg/kg	5.3 U	5.2 U	5.2 U	15 J L
8015M	PHCC21C30SILICA	EFH (C21-C30) w/ Silica Gel	mg/kg	5.3 U	5.2 U	5.2 U	94 J L
8015M	PHCC30C40SILICA	EFH (C30-C40) w/ Silica Gel	mg/kg	11 U	10 U	10 U	210
8015M	PHCC8C11SILICA	EFH (C8-C11) w/ Silica Gel	mg/kg	5.3 UJ L	5.2 UJ L	5.2 U	11 UJ L

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-1175-SA5A-SB-2.0-3.0	FDG2-SL-576-NBZ-SB-2.0-3.0	FDG2-SL-586-SA5D-SB-2.0-3.0	FDG2-SL-875-SA5A-SB-2.0-3.0	SL-529-SA5B-TR-2.0	SL-570-SA6-TR-2.0	SL-569-SA6-TR-2.5
			Sample Type	FD	N	N	N	N	N	N
			Sample Date	06/16/2014	06/10/2014	05/21/2014	06/16/2014	05/28/2014	05/20/2014	05/20/2014
			SDG	PH234	PH227	PH193	PH234	PH204	PH189	PH189
			Start Depth	2	2	2	2	2	2	2.5
			End Depth	3	3	3	3			
Analytic Method	CAS Number	Chemical Name	Unit							
8015M	GROC5C12	Gasoline Range Organics (C5-C12)	mg/kg	1.0 U	1.3 U	1.0 U	1.1 U	1.0 U	1 U	0.9 U

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-582-NBZ-SB-3.0-3.5	FDG2-SL-877-SA5A-SB-3.0-4.0	SL-529-SA5B-TR-3.0	SL-693-SA5B-TR-3.0	SL-699-SA5B-TR-3.0	SL-707-SA5B-TR-3.0	SL-636-SA5A-TR-3.5	SL-693-SA5B-TR-3.5
			Sample Type	N	N	N	N	N	N	N	N
			Sample Date	06/13/2014	06/16/2014	05/28/2014	05/28/2014	05/28/2014	05/27/2014	05/23/2014	05/27/2014
			SDG	PH233	PH234	PH204	PH204	PH204	PH201	PH199	PH201
			Start Depth	3	3	3	3	3	3	3.5	3.5
			End Depth	3.5	4						
Analytic Method	CAS Number	Chemical Name	Unit								
8015M	GROC5C12	Gasoline Range Organics (C5-C12)	mg/kg	1.1 U	1.0 U	9.4 U	1.3 U	1 U	1.1 U	1 U	1.2 U

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-1174-SA5A-SB-4.0-5.0	FDG2-SL-581-NBZ-SB-4.0-5.0	FDG2-SL-584-SA5D-SB-4.0-5.0	FDG2-SL-585-SA5D-SB-4.0-5.0	FDG2-SL-623-SA8-SB-4.0-5.0	FDG2-SL-626-SA8-SB-4.0-5.0
			Sample Type	N	N	N	N	N	N
			Sample Date	05/20/2014	05/22/2014	05/21/2014	05/21/2014	05/21/2014	06/06/2014
			SDG	PH188	PH196	PH193	PH193	PH193	PH221
			Start Depth	4	4	4	4	4	4
			End Depth	5	5	5	5	5	5
Analytic Method	CAS Number	Chemical Name	Unit						
8015M	GROC5C12	Gasoline Range Organics (C5-C12)	mg/kg	1 U	1.1 U	1 U	1.1 U	1.0 U	1.1 U

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Trench samples collected at a discrete interval.

			Sample Name	FDG2-SL-628-SA8-SB-4.0-5.0	FDG2-SL-630-SA8-SB-4.0-5.0	FDG2-SL-874-SA5A-SB-4.0-5.0	FDG2-SL-876-SA5A-SB-4.0-5.0	FDG2-SL-878-SA5A-SB-4.0-5.0	FDG2-SL-930-SA8-SB-4.0-5.0
			Sample Type	N	N	N	N	N	FD
			Sample Date	05/22/2014	06/10/2014	05/20/2014	06/16/2014	06/11/2014	06/10/2014
			SDG	PH196	PH227	PH188	PH234	PH229	PH227
			Start Depth	4	4	4	4	4	4
			End Depth	5	5	5	5	5	5
Analytic Method	CAS Number	Chemical Name	Unit						
8015M	GROC5C12	Gasoline Range Organics (C5-C12)	mg/kg	1.1 U	1.2 U	1.0 U	1.1 U	1.0 U	1.2 U

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Trench samples collected at a discrete interval.

			Sample Name	FDG-SL-841-SA5B-SB-4.0-5.0	FDG-SL-842-SA5B-SB-4.0-5.0	SL-838-SA5B-SB-4.0-5.0	SL-839-SA5B-SB-4.0-5.0	SL-840-SA5B-SB-4.0-5.0	SL-843-SA5B-SB-4.0-5.0	FDG2-SL-631-SA8-SB-4.5-5.0
			Sample Type	N	N	N	N	N	N	N
			Sample Date	05/14/2014	05/14/2014	01/13/2014	01/14/2014	01/13/2014	01/14/2014	06/05/2014
			SDG	PH177	PH177	PH158	PH159	PH158	PH159	PH220
			Start Depth	4	4	4	4	4	4	4.5
			End Depth	5	5	5	5	5	5	5
Analytic Method	CAS Number	Chemical Name	Unit							
8015M	GROC5C12	Gasoline Range Organics (C5-C12)	mg/kg	1.0 U	1.0 U	1.0 U	1.1 U	0.9 U	1.0 U	1 U

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Trench samples collected at a discrete interval.

			Sample Name	SL-503-SA5C-TR-5.0	SL-534-SA8-TR-5.0	SL-548-SA8-TR-5.0	SL-605-SA5C-TR-5.0	SL-611-SA8-TR-5.0	SL-646-SA5C-TR-5.0	SL-651-SA5C-TR-5.0	SL-653-SA5C-TR-5.0	SL-655-SA5C-TR-5.0	SL-686-SA6-TR-5.0
			Sample Type	N	N	N	N	N	N	N	N	N	N
			Sample Date	05/29/2014	05/19/2014	05/19/2014	05/29/2014	05/20/2014	06/04/2014	05/30/2014	06/02/2014	06/04/2014	05/21/2014
			SDG	PH207	PH185	PH185	PH207	PH189	PH217	PH209	PH212	PH217	PH192
			Start Depth	5	5	5	5	5	5	5	5	5	5
			End Depth										
Analytic Method	CAS Number	Chemical Name	Unit										
8015M	GROC5C12	Gasoline Range Organics (C5-C12)	mg/kg	1.1 U	1.0 U	1.1 U	1.1 U	1.1 U	1.1 U	1.0 U	1.0 U	1 U	1.0 U

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Trench samples collected at a discrete interval.

			Sample Name	SL-693-SA5B-TR-5.0	SL-848-SA8-TR-5.0	SL-951-SA5C-TR-5.0	SL-587-SA5A-TR-5.5	SL-887-SA5A-TR-5.5	SL-570-SA6-TR-6.0	SL-730-SA5A-TR-6.0	FDG2-SL-630-SA8-SB-7.0-8.0	FDG2-SL-631-SA8-SB-7.0-8.0
			Sample Type	N	FD	FD	N	N	N	N	N	N
			Sample Date	05/27/2014	05/19/2014	05/30/2014	05/22/2014	05/22/2014	05/20/2014	05/22/2014	06/10/2014	06/05/2014
			SDG	PH201	PH185	PH209	PH195	PH195	PH189	PH195	PH227	PH220
			Start Depth	5	5	5	5.5	5.5	6	6	7	7
			End Depth								8	8
Analytic Method	CAS Number	Chemical Name	Unit									
8015M	GROC5C12	Gasoline Range Organics (C5-C12)	mg/kg	1 U	1.0 U	1.0 U	1 U	1.1 U	1.0 U	0.9 U	1.2 U	1.1 U

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Trench samples collected at a discrete interval.

			Sample Name	SL-840-SA5B-SB-7.0-8.0	SL-843-SA5B-SB-7.0-8.0	SL-503-SA5C-TR-7.5	SL-636-SA5A-TR-7.5	SL-699-SA5B-TR-8.0	FDG2-SL-581-NBZ-SB-9.0-10.0	FDG2-SL-623-SA8-SB-9.0-10.0	FDG2-SL-628-SA8-SB-9.0-10.0
			Sample Type	N	N	N	N	N	N	N	N
			Sample Date	01/13/2014	01/14/2014	05/29/2014	05/23/2014	05/28/2014	05/22/2014	05/21/2014	05/22/2014
			SDG	PH158	PH159	PH207	PH199	PH204	PH196	PH193	PH196
			Start Depth	7	7	7.5	7.5	8	9	9	9
			End Depth	8	8				10	10	10
Analytic Method	CAS Number	Chemical Name	Unit								
8015M	GROC5C12	Gasoline Range Organics (C5-C12)	mg/kg	1.2 U	1.1 U	1.2 U	1.1 U	1 U	1.1 U	1.0 U	1.0 U

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Trench samples collected at a discrete interval.

			Sample Name	FDG-SL-841-SA5B-SB-9.0-10.0	SL-839-SA5B-SB-9.0-10.0	SL-548-SA8-TR-10.0	SL-605-SA5C-TR-10.0	SL-651-SA5C-TR-10.0	SL-653-SA5C-TR-10.0	SL-611-SA8-TR-10.5	SL-529-SA5B-TR-11.0
			Sample Type	N	N	N	N	N	N	N	N
			Sample Date	05/14/2014	01/14/2014	05/19/2014	05/29/2014	05/30/2014	06/02/2014	05/20/2014	05/28/2014
			SDG	PH177	PH159	PH185	PH207	PH209	PH212	PH189	PH204
			Start Depth	9	9	10	10	10	10	10.5	11
			End Depth	10	10						
Analytic Method	CAS Number	Chemical Name	Unit								
8015M	GROC5C12	Gasoline Range Organics (C5-C12)	mg/kg	1.1 U	1.1 U	1 U	1.1 U	1.1 U	1 U	1.0 U	1 U

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Trench samples collected at a discrete interval.

			Sample Name	SL-686-SA6-TR-11.0	FDG2-SL-874-SA5A-SB-12.0-13.0	FDG2-SL-581-NBZ-SB-13.0-14.0	FDG2-SL-623-SA8-SB-14.0-15.0	FDG2-SL-628-SA8-SB-14.0-15.0	FDG-SL-836-SA5B-SB-15.0-16.0	SL-651-SA5C-TR-15.0
			Sample Type	N	N	N	N	N	N	N
			Sample Date	05/21/2014	05/20/2014	05/22/2014	05/21/2014	05/22/2014	05/13/2014	05/30/2014
			SDG	PH192	PH188	PH196	PH193	PH196	PH176	PH209
			Start Depth	11	12	13	14	14	15	15
			End Depth		13	14	15	15	16	
Analytic Method	CAS Number	Chemical Name	Unit							
8015M	GROC5C12	Gasoline Range Organics (C5-C12)	mg/kg	1 U	1 U	1.1 U	1.1 U	1.3 U	1.1 U	1.0 U

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Trench samples collected at a discrete interval.

			Sample Name	SL-653-SA5C-TR-15.0	SL-839-SA5B-SB-15.5-16.5	FDG2-SL-623-SA8-SB-19.0-20.0	FDG-SL-836-SA5B-SB-19.0-20.0
			Sample Type	N	N	N	N
			Sample Date	06/02/2014	01/14/2014	05/21/2014	05/13/2014
			SDG	PH212	PH159	PH193	PH176
			Start Depth	15	15.5	19	19
			End Depth		16.5	20	20
Analytic Method	CAS Number	Chemical Name	Unit				
8015M	GROC5C12	Gasoline Range Organics (C5-C12)	mg/kg	1.0 U	1.2 U	1.1 U	2.2

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Trench samples collected at a discrete interval.

				Sample Name	SVL-501-SA5B-SB-0.75-1.25	SVL-563-SA5C-SB-1.0-1.5	SVL-577-SA6-SB-1.0-2.0	SVL-611-SA5A-SB-1.35-1.85	SVL-536-SA5B-SB-1.5-2.0	SVL-538-SA5B-SB-1.5-2.0	SVL-552-SA5A-SB-1.5-2.0	SVL-554-SA5A-SB-1.5-2.0	SVL-574-SA5A-SB-1.5-2.0
				Sample Type	N	N	N	N	N	N	N	N	N
				Sample Date	05/12/2014	06/02/2014	06/11/2014	06/09/2014	06/11/2014	05/15/2014	06/05/2014	06/05/2014	06/04/2014
				SDG	PH174	PH211	PH228	PH223	PH228	PH178	PH219	PH219	PH216
				Start Depth	0.75	1	1	1.4	1.5	1.5	1.5	1.5	1.5
				End Depth	1.25	1.5	2	1.9	2	2	2	2	2
Analytic Method	CAS Number	Chemical Name	Unit										
8260B	100-41-4	Ethylbenzene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	100-42-5	Styrene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	10061-01-5	cis-1,3-Dichloropropene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	10061-02-6	trans-1,3-Dichloropropene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	103-65-1	n-Propylbenzene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	104-51-8	n-Butylbenzene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	106-43-4	4-Chlorotoluene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	106-46-7	1,4-Dichlorobenzene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	106-93-4	1,2-Dibromoethane	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	107-02-8	Acrolein	µg/kg	89 U	110 U	100 U	97 U	100 U	90 U	110 U	110 U	110 U	
8260B	107-06-2	1,2-Dichloroethane	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	107-13-1	Acrylonitrile	µg/kg	18 U	21 U	20 U	19 U	20 U	18 U	22 U	22 U	22 U	
8260B	108-05-4	Vinyl Acetate	µg/kg	9 U	11 U	10 U	10 U	10 U	9 U	11 U	11 U	11 U	
8260B	108-10-1	4-Methyl-2-pentanone (MIBK)	µg/kg	9 U	11 U	10 U	10 U	10 U	9 U	11 U	11 U	11 U	
8260B	108-20-3	Di isopropyl Ether	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	108-67-8	1,3,5-Trimethylbenzene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	108-86-1	Bromobenzene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	108-88-3	Toluene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	108-90-7	Chlorobenzene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	110-75-8	2-Chloroethyl Vinyl Ether	µg/kg	9 U	11 U	10 U	10 U	10 U	9 U	11 U	11 U	11 U	
8260B	120-82-1	1,2,4-Trichlorobenzene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	124-48-1	Dibromochloromethane	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	127-18-4	Tetrachloroethene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	135-98-8	2-Phenylbutane	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	142-28-9	1,3-Dichloropropane	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	156-59-2	cis-1,2-Dichloroethene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	156-60-5	trans-1,2-Dichloroethene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	1634-04-4	Methyl Tert-Butyl Ether	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	179601-23-1	m,p-Xylene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	541-73-1	1,3-Dichlorobenzene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	544-10-5	1-Chlorohexane	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	56-23-5	Carbon Tetrachloride	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	563-58-6	1,1-Dichloropropene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	591-78-6	2-Hexanone	µg/kg	9 U	11 U	10 U	10 U	10 U	9 U	11 U	11 U	11 U	
8260B	594-20-7	2,2-Dichloropropane	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	630-20-6	1,1,1,2-Tetrachloroethane	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	637-92-3	tert-Butyl ethyl ether	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	67-64-1	Acetone	µg/kg	18 U	21 U	20 U	19 U	20 U	18 U	22 U	22 U	22 U	
8260B	67-66-3	Chloroform	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	71-43-2	Benzene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	71-55-6	1,1,1-Trichloroethane	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	74-83-9	Bromomethane	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	74-87-3	Chloromethane	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	74-88-4	Methyl Iodide	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	74-95-3	Dibromomethane	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	74-97-5	Bromochloromethane	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	75-00-3	Chloroethane	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	75-01-4	Vinyl Chloride	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	75-09-2	Methylene Chloride	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	75-15-0	Carbon Disulfide	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	75-25-2	Bromoform	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	75-27-4	Bromodichloromethane	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	75-34-3	1,1-Dichloroethane	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	75-35-4	1,1-Dichloroethene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	75-65-0	Tertiary butyl alcohol	µg/kg	44 U	53 U	51 U	49 U	51 U	45 U	55 U	54 U	56 U	
8260B	75-69-4	Trichlorofluoromethane	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	75-71-8	Dichlorodifluoromethane	µg/kg	4 U	5 U	5 U	5 U	5 U	4 UJ C	5 U	5 U	6 U	
8260B	75-88-7	2-Chloro-1,1,1-trifluoroethane	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U	
8260B	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/kg	4 U	5 U	5 U	5 U	5 U	4 UJ C	5 U	5 U	6 U	

				Sample Name	SVL-501-SA5B-SB-0.75-1.25	SVL-563-SA5C-SB-1.0-1.5	SVL-577-SA6-SB-1.0-2.0	SVL-611-SA5A-SB-1.35-1.85	SVL-536-SA5B-SB-1.5-2.0	SVL-538-SA5B-SB-1.5-2.0	SVL-552-SA5A-SB-1.5-2.0	SVL-554-SA5A-SB-1.5-2.0	SVL-574-SA5A-SB-1.5-2.0
				Sample Type	N	N	N	N	N	N	N	N	N
				Sample Date	05/12/2014	06/02/2014	06/11/2014	06/09/2014	06/11/2014	05/15/2014	06/05/2014	06/05/2014	06/04/2014
				SDG	PH174	PH211	PH228	PH223	PH228	PH178	PH219	PH219	PH216
				Start Depth	0.75	1	1	1.4	1.5	1.5	1.5	1.5	1.5
				End Depth	1.25	1.5	2	1.9	2	2	2	2	2
Analytic Method	CAS Number	Chemical Name	Unit										
8260B	78-87-5	1,2-Dichloropropane	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U
8260B	78-93-3	2-Butanone (MEK)	µg/kg	9 U	11 U	10 U	10 U	10 U	9 U	11 U	11 U	11 U
8260B	79-00-5	1,1,2-Trichloroethane	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U
8260B	79-01-6	Trichloroethene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U
8260B	79-34-5	1,1,2,2-Tetrachloroethane	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U
8260B	79-38-9	Chlorotrifluoroethylene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U
8260B	87-61-6	1,2,3-Trichlorobenzene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U
8260B	87-68-3	Hexachloro-1,3-butadiene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U
8260B	95-47-6	o-Xylene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U
8260B	95-49-8	2-Chlorotoluene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U
8260B	95-50-1	1,2-Dichlorobenzene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U
8260B	95-63-6	1,2,4-Trimethylbenzene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U
8260B	96-12-8	1,2-Dibromo-3-chloropropane	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U
8260B	96-18-4	1,2,3-Trichloropropane	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U
8260B	98-06-6	tert-Butylbenzene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U
8260B	98-82-8	Isopropylbenzene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U
8260B	994-05-8	Tertiary amyl methyl ether	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U
8260B	99-87-6	Cymene	µg/kg	4 U	5 U	5 U	5 U	5 U	4 U	5 U	5 U	6 U

U – Compound not detected above reporting limit
J – Result is an estimated value
R – Result is rejected
Z, etc. – Specific description qualifiers that are applied during validation.
Definitions are provided at the beginning of Appendix A. The letters can vary and there can be more than one letter.

				Sample Name	SVL-630-SA5A-SB-1.5-2.0	SVL-536-SA5D-SB-1.8-2.3	FDG2-SL-1175-SA5A-SB-2.0-3.0	FDG2-SL-875-SA5A-SB-2.0-3.0	SVL-504-SA8-SB-2.0-2.5	SVL-527-SA6-SB-2.0-3.0	SVL-543-SA5B-SB-2.0-2.5	SVL-551-SA5C-SB-2.0-2.8	SVL-566-SA5B-SB-2.0-2.5
				Sample Type	N	N	FD	N	N	N	N	N	N
				Sample Date	06/09/2014	05/23/2014	06/16/2014	06/16/2014	05/16/2014	06/09/2014	05/14/2014	05/28/2014	05/15/2014
				SDG	PH223	PH198	PH234	PH234	PH181	PH223	PH182	PH203	PH178
				Start Depth	1.5	1.8	2	2	2	2	2	2	2
				End Depth	2	2.3	3	3	2.5	3	2.5	2.8	2.5
Analytic Method	CAS Number	Chemical Name	Unit										
8260B	100-41-4	Ethylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	100-42-5	Styrene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	10061-01-5	cis-1,3-Dichloropropene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	10061-02-6	trans-1,3-Dichloropropene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	103-65-1	n-Propylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	104-51-8	n-Butylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	106-43-4	4-Chlorotoluene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	106-46-7	1,4-Dichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	106-93-4	1,2-Dibromoethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	107-02-8	Acrolein	µg/kg	110 U	110 U	100 U	100 U	100 U	110 U	110 U	100 U	95 U	
8260B	107-06-2	1,2-Dichloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	107-13-1	Acrylonitrile	µg/kg	21 U	21 U	21 U	21 U	21 U	22 U	23 U	20 U	19 U	
8260B	108-05-4	Vinyl Acetate	µg/kg	11 U	11 U	10 U	10 UJ Q	10 U	11 U	11 U	10 U	9 U	
8260B	108-10-1	4-Methyl-2-pentanone (MIBK)	µg/kg	11 U	11 U	10 U	10 U	10 U	11 U	11 U	10 U	9 U	
8260B	108-20-3	Di isopropyl Ether	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	108-67-8	1,3,5-Trimethylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	108-86-1	Bromobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	108-88-3	Toluene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	108-90-7	Chlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	110-75-8	2-Chloroethyl Vinyl Ether	µg/kg	11 U	11 U	10 U	10 U	10 U	11 U	11 U	10 U	9 U	
8260B	120-82-1	1,2,4-Trichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	124-48-1	Dibromochloromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	127-18-4	Tetrachloroethene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	135-98-8	2-Phenylbutane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	142-28-9	1,3-Dichloropropane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	156-59-2	cis-1,2-Dichloroethene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	156-60-5	trans-1,2-Dichloroethene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	1634-04-4	Methyl Tert-Butyl Ether	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	179601-23-1	m,p-Xylene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	541-73-1	1,3-Dichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	544-10-5	1-Chlorohexane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	56-23-5	Carbon Tetrachloride	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	563-58-6	1,1-Dichloropropene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	591-78-6	2-Hexanone	µg/kg	11 U	11 U	10 U	10 U	10 U	11 U	11 U	10 U	9 U	
8260B	594-20-7	2,2-Dichloropropane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	630-20-6	1,1,1,2-Tetrachloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	637-92-3	tert-Butyl ethyl ether	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	67-64-1	Acetone	µg/kg	21 U	21 U	21 U	21 U	21 U	22 U	23 U	20 U	19 U	
8260B	67-66-3	Chloroform	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	71-43-2	Benzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	71-55-6	1,1,1-Trichloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	74-83-9	Bromomethane	µg/kg	5 U	5 U	5 UJ C	5 UJ C	5 U	6 U	6 U	5 U	5 U	
8260B	74-87-3	Chloromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	74-88-4	Methyl Iodide	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	74-95-3	Dibromomethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	74-97-5	Bromochloromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	75-00-3	Chloroethane	µg/kg	5 U	5 U	5 UJ C	5 UJ C	5 U	6 U	6 U	5 U	5 U	
8260B	75-01-4	Vinyl Chloride	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	75-09-2	Methylene Chloride	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	75-15-0	Carbon Disulfide	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	75-25-2	Bromoform	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	75-27-4	Bromodichloromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	75-34-3	1,1-Dichloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	75-35-4	1,1-Dichloroethene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	75-65-0	Tertiary butyl alcohol	µg/kg	53 U	53 U	52 U	51 U	52 U	56 U	56 U	51 U	47 U	
8260B	75-69-4	Trichlorofluoromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	75-71-8	Dichlorodifluoromethane	µg/kg	5 U	5 U	5 UJ C	5 UJ C	5 U	6 U	6 U	5 U	5 UJ C	
8260B	75-88-7	2-Chloro-1,1,1-trifluoroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U	
8260B	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 UJ C	

				Sample Name	SVL-630-SA5A-SB-1.5-2.0	SVL-536-SA5D-SB-1.8-2.3	FDG2-SL-1175-SA5A-SB-2.0-3.0	FDG2-SL-875-SA5A-SB-2.0-3.0	SVL-504-SA8-SB-2.0-2.5	SVL-527-SA6-SB-2.0-3.0	SVL-543-SA5B-SB-2.0-2.5	SVL-551-SA5C-SB-2.0-2.8	SVL-566-SA5B-SB-2.0-2.5
				Sample Type	N	N	FD	N	N	N	N	N	N
				Sample Date	06/09/2014	05/23/2014	06/16/2014	06/16/2014	05/16/2014	06/09/2014	05/14/2014	05/28/2014	05/15/2014
				SDG	PH223	PH198	PH234	PH234	PH181	PH223	PH182	PH203	PH178
				Start Depth	1.5	1.8	2	2	2	2	2	2	2
				End Depth	2	2.3	3	3	2.5	3	2.5	2.8	2.5
Analytic Method	CAS Number	Chemical Name	Unit										
8260B	78-87-5	1,2-Dichloropropane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U
8260B	78-93-3	2-Butanone (MEK)	µg/kg	11 U	11 U	10 U	10 U	10 U	11 U	11 U	10 U	9 U
8260B	79-00-5	1,1,2-Trichloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U
8260B	79-01-6	Trichloroethene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U
8260B	79-34-5	1,1,2,2-Tetrachloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U
8260B	79-38-9	Chlorotrifluoroethylene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U
8260B	87-61-6	1,2,3-Trichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U
8260B	87-68-3	Hexachloro-1,3-butadiene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U
8260B	95-47-6	o-Xylene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U
8260B	95-49-8	2-Chlorotoluene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U
8260B	95-50-1	1,2-Dichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U
8260B	95-63-6	1,2,4-Trimethylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U
8260B	96-12-8	1,2-Dibromo-3-chloropropane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U
8260B	96-18-4	1,2,3-Trichloropropane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U
8260B	98-06-6	tert-Butylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U
8260B	98-82-8	Isopropylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U
8260B	994-05-8	Tertiary amyl methyl ether	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U
8260B	99-87-6	Cymene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	6 U	5 U	5 U

U – Compound not detected above reporting limit
J – Result is an estimated value
R – Result is rejected
Z, etc. – Specific description qualifiers that are applied during validation.
Definitions are provided at the beginning of Appendix A. The letters can vary and there can be more than one letter.

				Sample Name	SVL-531-SA5C-SB-2.5-2.9	SVL-559-SA5C-SB-2.5-3.0	SVL-569-SA5B-SB-2.5-3.0	SVL-571-SA5A-SB-2.5-3.0	SVL-576-SA5A-SB-2.5-3.0	SVL-521-SA5B-SB-3.0-3.5	SVL-534-SA5B-SB-3.0-3.5	SVL-545-SA5C-SB-3.0-3.5	SVL-557-SA5C-SB-3.0-3.5
				Sample Type	N	N	N	N	N	N	N	N	N
				Sample Date	05/20/2014	05/29/2014	06/11/2014	06/04/2014	06/04/2014	05/14/2014	05/15/2014	05/28/2014	05/29/2014
				SDG	PH186	PH206	PH228	PH216	PH216	PH182	PH178	PH203	PH206
				Start Depth	2.5	2.5	2.5	2.5	2.5	3	3	3	3
				End Depth	2.9	3	3	3	3	3.5	3.5	3.5	3.5
Analytic Method	CAS Number	Chemical Name	Unit										
8260B	100-41-4	Ethylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	100-42-5	Styrene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	10061-01-5	cis-1,3-Dichloropropene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	10061-02-6	trans-1,3-Dichloropropene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	103-65-1	n-Propylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	104-51-8	n-Butylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	106-43-4	4-Chlorotoluene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	106-46-7	1,4-Dichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	106-93-4	1,2-Dibromoethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	107-02-8	Acrolein	µg/kg	100 U	110 U	93 U	100 U	100 U	99 U	95 U	120 U	120 U	
8260B	107-06-2	1,2-Dichloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	107-13-1	Acrylonitrile	µg/kg	20 U	21 U	19 U	20 U	21 U	20 U	19 U	23 U	23 U	
8260B	108-05-4	Vinyl Acetate	µg/kg	10 U	11 U	9 U	10 U	10 U	10 U	9 U	12 U	12 U	
8260B	108-10-1	4-Methyl-2-pentanone (MIBK)	µg/kg	10 U	11 U	9 U	10 U	10 U	10 U	9 U	12 U	12 U	
8260B	108-20-3	Di isopropyl Ether	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	108-67-8	1,3,5-Trimethylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	108-86-1	Bromobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	108-88-3	Toluene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	108-90-7	Chlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	110-75-8	2-Chloroethyl Vinyl Ether	µg/kg	10 U	11 U	9 U	10 U	10 U	10 U	9 U	12 U	12 U	
8260B	120-82-1	1,2,4-Trichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	124-48-1	Dibromochloromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	127-18-4	Tetrachloroethene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	135-98-8	2-Phenylbutane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	142-28-9	1,3-Dichloropropane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	156-59-2	cis-1,2-Dichloroethene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	156-60-5	trans-1,2-Dichloroethene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	1634-04-4	Methyl Tert-Butyl Ether	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	179601-23-1	m,p-Xylene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	541-73-1	1,3-Dichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	544-10-5	1-Chlorohexane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	56-23-5	Carbon Tetrachloride	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	563-58-6	1,1-Dichloropropene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	591-78-6	2-Hexanone	µg/kg	10 U	11 U	9 U	10 U	10 U	10 U	9 U	12 U	12 U	
8260B	594-20-7	2,2-Dichloropropane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	630-20-6	1,1,1,2-Tetrachloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	637-92-3	tert-Butyl ethyl ether	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	67-64-1	Acetone	µg/kg	20 U	21 U	19 U	20 U	21 U	20 U	19 U	23 U	23 U	
8260B	67-66-3	Chloroform	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	71-43-2	Benzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	71-55-6	1,1,1-Trichloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	74-83-9	Bromomethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	74-87-3	Chloromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	74-88-4	Methyl Iodide	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	74-95-3	Dibromomethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	74-97-5	Bromochloromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	75-00-3	Chloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	75-01-4	Vinyl Chloride	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	75-09-2	Methylene Chloride	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	75-15-0	Carbon Disulfide	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	75-25-2	Bromoform	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	75-27-4	Bromodichloromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	75-34-3	1,1-Dichloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	75-35-4	1,1-Dichloroethene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	75-65-0	Tertiary butyl alcohol	µg/kg	51 U	53 U	46 U	50 U	52 U	49 U	47 U	58 U	59 U	
8260B	75-69-4	Trichlorofluoromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	75-71-8	Dichlorodifluoromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ C	6 U	6 U	
8260B	75-88-7	2-Chloro-1,1,1-trifluoroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	
8260B	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ C	6 U	6 U	

				Sample Name	SVL-531-SA5C-SB-2.5-2.9	SVL-559-SA5C-SB-2.5-3.0	SVL-569-SA5B-SB-2.5-3.0	SVL-571-SA5A-SB-2.5-3.0	SVL-576-SA5A-SB-2.5-3.0	SVL-521-SA5B-SB-3.0-3.5	SVL-534-SA5B-SB-3.0-3.5	SVL-545-SA5C-SB-3.0-3.5	SVL-557-SA5C-SB-3.0-3.5
				Sample Type	N	N	N	N	N	N	N	N	N
				Sample Date	05/20/2014	05/29/2014	06/11/2014	06/04/2014	06/04/2014	05/14/2014	05/15/2014	05/28/2014	05/29/2014
				SDG	PH186	PH206	PH228	PH216	PH216	PH182	PH178	PH203	PH206
				Start Depth	2.5	2.5	2.5	2.5	2.5	3	3	3	3
				End Depth	2.9	3	3	3	3	3.5	3.5	3.5	3.5
Analytic Method	CAS Number	Chemical Name	Unit										
8260B	78-87-5	1,2-Dichloropropane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U
8260B	78-93-3	2-Butanone (MEK)	µg/kg	10 U	11 U	9 U	10 U	10 U	10 U	9 U	12 U	12 U
8260B	79-00-5	1,1,2-Trichloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U
8260B	79-01-6	Trichloroethene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U
8260B	79-34-5	1,1,2,2-Tetrachloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U
8260B	79-38-9	Chlorotrifluoroethylene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U
8260B	87-61-6	1,2,3-Trichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U
8260B	87-68-3	Hexachloro-1,3-butadiene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U
8260B	95-47-6	o-Xylene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U
8260B	95-49-8	2-Chlorotoluene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U
8260B	95-50-1	1,2-Dichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U
8260B	95-63-6	1,2,4-Trimethylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U
8260B	96-12-8	1,2-Dibromo-3-chloropropane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U
8260B	96-18-4	1,2,3-Trichloropropane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U
8260B	98-06-6	tert-Butylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U
8260B	98-82-8	Isopropylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U
8260B	994-05-8	Tertiary amyl methyl ether	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U
8260B	99-87-6	Cymene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U

U – Compound not detected above reporting limit
J – Result is an estimated value
R – Result is rejected
Z, etc. – Specific description qualifiers that are applied during validation.
Definitions are provided at the beginning of Appendix A. The letters can vary and there can be more than one letter.

				Sample Name	SVL-566-SA5A-SB-3.0-3.5	SVL-627-SA5A-SB-3.0-3.5	SVL-532-SA8-SB-3.5-4.0	SVL-586-SA5B-SB-3.75-4.25	SVL-986-SA5B-SB-3.75-4.25	SVL-574-SA6-SB-3.8-4.3	SVL-529-SA5A-SB-4.0-4.5	SVL-532-SA5B-SB-4.0-5.0	SVL-532-SA5D-SB-4.0-4.5
				Sample Type	N	N	N	N	FD	N	N	N	N
				Sample Date	06/04/2014	06/06/2014	06/12/2014	06/04/2014	06/04/2014	06/09/2014	06/05/2014	05/13/2014	05/27/2014
				SDG	PH216	PH222	PH230	PH216	PH216	PH223	PH219	PH180	PH200
				Start Depth	3	3	3.5	3.75	3.75	3.8	4	4	4
				End Depth	3.5	3.5	4	4.25	4.25	4.3	4.5	5	4.5
Analytic Method	CAS Number	Chemical Name	Unit										
8260B	100-41-4	Ethylbenzene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	100-42-5	Styrene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	10061-01-5	cis-1,3-Dichloropropene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	10061-02-6	trans-1,3-Dichloropropene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	103-65-1	n-Propylbenzene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	104-51-8	n-Butylbenzene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	106-43-4	4-Chlorotoluene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	106-46-7	1,4-Dichlorobenzene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	106-93-4	1,2-Dibromoethane	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	107-02-8	Acrolein	µg/kg	110 U	110 U	110 U	110 U	110 U	100 U	110 U	93 U	100 U	
8260B	107-06-2	1,2-Dichloroethane	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	107-13-1	Acrylonitrile	µg/kg	22 U	22 U	23 U	22 U	22 U	20 U	21 U	19 U	21 U	
8260B	108-05-4	Vinyl Acetate	µg/kg	11 U	11 U	11 U	11 U	11 U	10 U	11 U	9 U	10 U	
8260B	108-10-1	4-Methyl-2-pentanone (MIBK)	µg/kg	11 U	11 U	11 U	11 U	11 U	10 U	11 U	9 U	10 U	
8260B	108-20-3	Di isopropyl Ether	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	108-67-8	1,3,5-Trimethylbenzene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	108-86-1	Bromobenzene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	108-88-3	Toluene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	108-90-7	Chlorobenzene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	110-75-8	2-Chloroethyl Vinyl Ether	µg/kg	11 U	11 U	11 U	11 U	11 U	10 U	11 U	9 U	10 U	
8260B	120-82-1	1,2,4-Trichlorobenzene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	124-48-1	Dibromochloromethane	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	127-18-4	Tetrachloroethene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	135-98-8	2-Phenylbutane	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	142-28-9	1,3-Dichloropropane	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	156-59-2	cis-1,2-Dichloroethene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	156-60-5	trans-1,2-Dichloroethene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	1634-04-4	Methyl Tert-Butyl Ether	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	179601-23-1	m,p-Xylene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	541-73-1	1,3-Dichlorobenzene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	544-10-5	1-Chlorohexane	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	56-23-5	Carbon Tetrachloride	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	563-58-6	1,1-Dichloropropene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	591-78-6	2-Hexanone	µg/kg	11 U	11 U	11 U	11 U	11 U	10 U	11 U	9 U	10 U	
8260B	594-20-7	2,2-Dichloropropane	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	630-20-6	1,1,1,2-Tetrachloroethane	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	637-92-3	tert-Butyl ethyl ether	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	67-64-1	Acetone	µg/kg	22 U	16 J Z	23 U	22 U	22 U	11 J Z	21 U	19 U	21 U	
8260B	67-66-3	Chloroform	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	71-43-2	Benzene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	71-55-6	1,1,1-Trichloroethane	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	74-83-9	Bromomethane	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	74-87-3	Chloromethane	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	74-88-4	Methyl Iodide	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	74-95-3	Dibromomethane	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	74-97-5	Bromochloromethane	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	75-00-3	Chloroethane	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	75-01-4	Vinyl Chloride	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	75-09-2	Methylene Chloride	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	75-15-0	Carbon Disulfide	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	75-25-2	Bromoform	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	75-27-4	Bromodichloromethane	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	75-34-3	1,1-Dichloroethane	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	75-35-4	1,1-Dichloroethene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	75-65-0	Tertiary butyl alcohol	µg/kg	56 U	54 U	56 U	54 U	55 U	50 U	53 U	46 U	52 U	
8260B	75-69-4	Trichlorofluoromethane	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	75-71-8	Dichlorodifluoromethane	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	75-88-7	2-Chloro-1,1,1-trifluoroethane	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

				Sample Name	SVL-566-SA5A-SB-3.0-3.5	SVL-627-SA5A-SB-3.0-3.5	SVL-532-SA8-SB-3.5-4.0	SVL-586-SA5B-SB-3.75-4.25	SVL-986-SA5B-SB-3.75-4.25	SVL-574-SA6-SB-3.8-4.3	SVL-529-SA5A-SB-4.0-4.5	SVL-532-SA5B-SB-4.0-5.0	SVL-532-SA5D-SB-4.0-4.5
				Sample Type	N	N	N	N	FD	N	N	N	N
				Sample Date	06/04/2014	06/06/2014	06/12/2014	06/04/2014	06/04/2014	06/09/2014	06/05/2014	05/13/2014	05/27/2014
				SDG	PH216	PH222	PH230	PH216	PH216	PH223	PH219	PH180	PH200
				Start Depth	3	3	3.5	3.75	3.75	3.8	4	4	4
				End Depth	3.5	3.5	4	4.25	4.25	4.3	4.5	5	4.5
Analytic Method	CAS Number	Chemical Name	Unit										
8260B	78-87-5	1,2-Dichloropropane	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	78-93-3	2-Butanone (MEK)	µg/kg	11 U	11 U	11 U	11 U	11 U	10 U	11 U	9 U	10 U	
8260B	79-00-5	1,1,2-Trichloroethane	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	
8260B	79-01-6	Trichloroethene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	
8260B	79-34-5	1,1,2,2-Tetrachloroethane	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	
8260B	79-38-9	Chlorotrifluoroethylene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	
8260B	87-61-6	1,2,3-Trichlorobenzene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	
8260B	87-68-3	Hexachloro-1,3-butadiene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	
8260B	95-47-6	o-Xylene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	
8260B	95-49-8	2-Chlorotoluene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	
8260B	95-50-1	1,2-Dichlorobenzene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	
8260B	95-63-6	1,2,4-Trimethylbenzene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	
8260B	96-12-8	1,2-Dibromo-3-chloropropane	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	
8260B	96-18-4	1,2,3-Trichloropropane	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	
8260B	98-06-6	tert-Butylbenzene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	
8260B	98-82-8	Isopropylbenzene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	
8260B	994-05-8	Tertiary amyl methyl ether	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	
8260B	99-87-6	Cymene	µg/kg	6 U	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	

U – Compound not detected above reporting limit
J – Result is an estimated value
R – Result is rejected
Z, etc. – Specific description qualifiers that are applied during validation.
Definitions are provided at the beginning of Appendix A. The letters can vary and there can be more than one letter.

				Sample Name	SVL-551-SA6-SB-4.0-5.0	SVL-576-SA5B-SB-4.0-4.3	SVL-832-SA5B-SB-4.0-5.0	SVL-546-SA8-SB-4.4-4.9	SVL-846-SA8-SB-4.4-4.9	SVL-511-SA5D-SB-4.5-5.5	SVL-524-SA8-SB-4.5-5.5	SVL-553-SA5D-SB-4.5-5.5	SVL-556-SA5D-SB-4.5-5.5
				Sample Type	N	N	FD	N	N	N	N	N	N
				Sample Date	06/10/2014	06/02/2014	05/13/2014	06/12/2014	06/12/2014	05/22/2014	05/19/2014	06/03/2014	06/03/2014
				SDG	PH226	PH211	PH180	PH230	PH230	PH194	PH183	PH214	PH214
				Start Depth	4	4	4	4.4	4.4	4.5	4.5	4.5	4.5
				End Depth	5	4.3	5	4.9	4.9	5.5	5.5	5.5	5.5
Analytic Method	CAS Number	Chemical Name	Unit										
8260B	100-41-4	Ethylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	100-42-5	Styrene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	10061-01-5	cis-1,3-Dichloropropene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	10061-02-6	trans-1,3-Dichloropropene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	103-65-1	n-Propylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	104-51-8	n-Butylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	106-43-4	4-Chlorotoluene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	106-46-7	1,4-Dichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	106-93-4	1,2-Dibromoethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	107-02-8	Acrolein	µg/kg	100 U	110 U	93 U	100 U	100 U	100 U	94 U	110 U	100 U	
8260B	107-06-2	1,2-Dichloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	107-13-1	Acrylonitrile	µg/kg	20 U	21 U	19 U	21 U	20 U	20 U	19 U	23 U	21 U	
8260B	108-05-4	Vinyl Acetate	µg/kg	10 U	11 U	9 U	10 UJ Q	10 U	10 U	9 U	11 U	10 U	
8260B	108-10-1	4-Methyl-2-pentanone (MIBK)	µg/kg	10 U	11 U	9 U	10 U	10 U	10 U	9 U	11 U	10 U	
8260B	108-20-3	Di isopropyl Ether	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	108-67-8	1,3,5-Trimethylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	108-86-1	Bromobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	108-88-3	Toluene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	108-90-7	Chlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	110-75-8	2-Chloroethyl Vinyl Ether	µg/kg	10 U	11 U	9 U	10 U	10 U	10 U	9 U	11 U	10 U	
8260B	120-82-1	1,2,4-Trichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	124-48-1	Dibromochloromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	127-18-4	Tetrachloroethene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	135-98-8	2-Phenylbutane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	142-28-9	1,3-Dichloropropane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	156-59-2	cis-1,2-Dichloroethene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	156-60-5	trans-1,2-Dichloroethene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	1634-04-4	Methyl Tert-Butyl Ether	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	179601-23-1	m,p-Xylene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	541-73-1	1,3-Dichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	544-10-5	1-Chlorohexane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	56-23-5	Carbon Tetrachloride	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	563-58-6	1,1-Dichloropropene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	591-78-6	2-Hexanone	µg/kg	10 U	11 U	9 U	10 U	10 U	10 U	9 U	11 U	10 U	
8260B	594-20-7	2,2-Dichloropropane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	630-20-6	1,1,1,2-Tetrachloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	637-92-3	tert-Butyl ethyl ether	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	67-64-1	Acetone	µg/kg	20 U	21 U	19 U	21 U	20 U	20 U	19 U	23 U	21 U	
8260B	67-66-3	Chloroform	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	71-43-2	Benzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	71-55-6	1,1,1-Trichloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	74-83-9	Bromomethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	74-87-3	Chloromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	74-88-4	Methyl Iodide	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	74-95-3	Dibromomethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	74-97-5	Bromochloromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	75-00-3	Chloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	75-01-4	Vinyl Chloride	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	75-09-2	Methylene Chloride	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	75-15-0	Carbon Disulfide	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	75-25-2	Bromoform	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	75-27-4	Bromodichloromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	75-34-3	1,1-Dichloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	75-35-4	1,1-Dichloroethene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	75-65-0	Tertiary butyl alcohol	µg/kg	50 U	53 U	47 U	51 U	50 U	50 U	47 U	56 U	52 U	
8260B	75-69-4	Trichlorofluoromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	75-71-8	Dichlorodifluoromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	75-88-7	2-Chloro-1,1,1-trifluoroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	
8260B	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U	

				Sample Name	SVL-551-SA6-SB-4.0-5.0	SVL-576-SA5B-SB-4.0-4.3	SVL-832-SA5B-SB-4.0-5.0	SVL-546-SA8-SB-4.4-4.9	SVL-846-SA8-SB-4.4-4.9	SVL-511-SA5D-SB-4.5-5.5	SVL-524-SA8-SB-4.5-5.5	SVL-553-SA5D-SB-4.5-5.5	SVL-556-SA5D-SB-4.5-5.5
				Sample Type	N	N	FD	N	N	N	N	N	N
				Sample Date	06/10/2014	06/02/2014	05/13/2014	06/12/2014	06/12/2014	05/22/2014	05/19/2014	06/03/2014	06/03/2014
				SDG	PH226	PH211	PH180	PH230	PH230	PH194	PH183	PH214	PH214
				Start Depth	4	4	4	4.4	4.4	4.5	4.5	4.5	4.5
				End Depth	5	4.3	5	4.9	4.9	5.5	5.5	5.5	5.5
Analytic Method	CAS Number	Chemical Name	Unit										
8260B	78-87-5	1,2-Dichloropropane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U
8260B	78-93-3	2-Butanone (MEK)	µg/kg	10 U	11 U	9 U	10 U	10 U	10 U	9 U	11 U	10 U
8260B	79-00-5	1,1,2-Trichloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U
8260B	79-01-6	Trichloroethene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U
8260B	79-34-5	1,1,2,2-Tetrachloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U
8260B	79-38-9	Chlorotrifluoroethylene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U
8260B	87-61-6	1,2,3-Trichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U
8260B	87-68-3	Hexachloro-1,3-butadiene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U
8260B	95-47-6	o-Xylene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U
8260B	95-49-8	2-Chlorotoluene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U
8260B	95-50-1	1,2-Dichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U
8260B	95-63-6	1,2,4-Trimethylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U
8260B	96-12-8	1,2-Dibromo-3-chloropropane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U
8260B	96-18-4	1,2,3-Trichloropropane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U
8260B	98-06-6	tert-Butylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U
8260B	98-82-8	Isopropylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U
8260B	994-05-8	Tertiary amyl methyl ether	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U
8260B	99-87-6	Cymene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	5 U

U – Compound not detected above reporting limit
J – Result is an estimated value
R – Result is rejected
Z, etc. – Specific description qualifiers that are applied during validation.
Definitions are provided at the beginning of Appendix A. The letters can vary and there can be more than one letter.

				Sample Name	SVL-563-SA5B-SB-4.5-5.0	SVL-602-SA5B-SB-4.5-5.0	SVL-811-SA5D-SB-4.5-5.5	SVL-507-SA5C-SB-5.0-6.0	SVL-512-SA5D-SB-5.0-6.0	SVL-515-SA5D-SB-5.0-6.0	SVL-517-SA8-SB-5.0-6.0	SVL-525-SA5C-SB-5.0-6.0	SVL-528-SA8-SB-5.0-6.0
				Sample Type	N	N	FD	N	N	N	N	N	N
				Sample Date	06/11/2014	06/03/2014	05/22/2014	05/28/2014	05/21/2014	05/21/2014	05/19/2014	05/20/2014	05/19/2014
				SDG	PH228	PH214	PH194	PH203	PH190	PH190	PH183	PH186	PH183
				Start Depth	4.5	4.5	4.5	5	5	5	5	5	5
				End Depth	5	5	5.5	6	6	6	6	6	6
Analytic Method	CAS Number	Chemical Name	Unit										
8260B	100-41-4	Ethylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	100-42-5	Styrene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	10061-01-5	cis-1,3-Dichloropropene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	10061-02-6	trans-1,3-Dichloropropene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	103-65-1	n-Propylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	104-51-8	n-Butylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	106-43-4	4-Chlorotoluene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	106-46-7	1,4-Dichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	106-93-4	1,2-Dibromoethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	107-02-8	Acrolein	µg/kg	97 U	110 U	110 U	96 U	110 U	110 U	110 U	94 U	120 U
8260B	107-06-2	1,2-Dichloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	107-13-1	Acrylonitrile	µg/kg	19 U	22 U	21 U	19 U	21 U	23 U	21 U	19 U	24 U
8260B	108-05-4	Vinyl Acetate	µg/kg	10 U	11 U	11 U	10 U	11 U	11 U	11 U	9 U	12 U
8260B	108-10-1	4-Methyl-2-pentanone (MIBK)	µg/kg	10 U	11 U	11 U	10 U	11 U	11 U	11 U	9 U	12 U
8260B	108-20-3	Di isopropyl Ether	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	108-67-8	1,3,5-Trimethylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	108-86-1	Bromobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	108-88-3	Toluene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	108-90-7	Chlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	110-75-8	2-Chloroethyl Vinyl Ether	µg/kg	10 U	11 U	11 U	10 U	11 U	11 U	11 U	9 U	12 U
8260B	120-82-1	1,2,4-Trichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	124-48-1	Dibromochloromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	127-18-4	Tetrachloroethene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	135-98-8	2-Phenylbutane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	142-28-9	1,3-Dichloropropane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	156-59-2	cis-1,2-Dichloroethene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	156-60-5	trans-1,2-Dichloroethene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	1634-04-4	Methyl Tert-Butyl Ether	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	179601-23-1	m,p-Xylene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	541-73-1	1,3-Dichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	544-10-5	1-Chlorohexane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	56-23-5	Carbon Tetrachloride	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	563-58-6	1,1-Dichloropropene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	591-78-6	2-Hexanone	µg/kg	10 U	11 U	11 U	10 U	11 U	11 U	11 U	9 U	12 U
8260B	594-20-7	2,2-Dichloropropane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	630-20-6	1,1,1,2-Tetrachloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	637-92-3	tert-Butyl ethyl ether	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	67-64-1	Acetone	µg/kg	19 U	22 U	21 U	19 U	21 U	23 U	21 U	32	24 U
8260B	67-66-3	Chloroform	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	71-43-2	Benzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	71-55-6	1,1,1-Trichloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	74-83-9	Bromomethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	74-87-3	Chloromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	74-88-4	Methyl Iodide	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	74-95-3	Dibromomethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	74-97-5	Bromochloromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	75-00-3	Chloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	75-01-4	Vinyl Chloride	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	75-09-2	Methylene Chloride	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	75-15-0	Carbon Disulfide	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	75-25-2	Bromoform	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	75-27-4	Bromodichloromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	75-34-3	1,1-Dichloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	75-35-4	1,1-Dichloroethene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	75-65-0	Tertiary butyl alcohol	µg/kg	49 U	55 U	53 U	48 U	53 U	57 U	53 U	47 U	61 U
8260B	75-69-4	Trichlorofluoromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	75-71-8	Dichlorodifluoromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	75-88-7	2-Chloro-1,1,1-trifluoroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U

				Sample Name	SVL-563-SA5B-SB-4.5-5.0	SVL-602-SA5B-SB-4.5-5.0	SVL-811-SA5D-SB-4.5-5.5	SVL-507-SA5C-SB-5.0-6.0	SVL-512-SA5D-SB-5.0-6.0	SVL-515-SA5D-SB-5.0-6.0	SVL-517-SA8-SB-5.0-6.0	SVL-525-SA5C-SB-5.0-6.0	SVL-528-SA8-SB-5.0-6.0
				Sample Type	N	N	FD	N	N	N	N	N	N
				Sample Date	06/11/2014	06/03/2014	05/22/2014	05/28/2014	05/21/2014	05/21/2014	05/19/2014	05/20/2014	05/19/2014
				SDG	PH228	PH214	PH194	PH203	PH190	PH190	PH183	PH186	PH183
				Start Depth	4.5	4.5	4.5	5	5	5	5	5	5
				End Depth	5	5	5.5	6	6	6	6	6	6
Analytic Method	CAS Number	Chemical Name	Unit										
8260B	78-87-5	1,2-Dichloropropane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	78-93-3	2-Butanone (MEK)	µg/kg	10 U	11 U	11 U	10 U	11 U	11 U	11 U	4 J Z	12 U
8260B	79-00-5	1,1,2-Trichloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	79-01-6	Trichloroethene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	79-34-5	1,1,2,2-Tetrachloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	79-38-9	Chlorotrifluoroethylene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	87-61-6	1,2,3-Trichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	87-68-3	Hexachloro-1,3-butadiene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	95-47-6	o-Xylene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	95-49-8	2-Chlorotoluene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	95-50-1	1,2-Dichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	95-63-6	1,2,4-Trimethylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	96-12-8	1,2-Dibromo-3-chloropropane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	96-18-4	1,2,3-Trichloropropane	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	98-06-6	tert-Butylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	98-82-8	Isopropylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	994-05-8	Tertiary amyl methyl ether	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U
8260B	99-87-6	Cymene	µg/kg	5 U	5 U	5 U	5 U	5 U	6 U	5 U	5 U	6 U

U – Compound not detected above reporting limit
J – Result is an estimated value
R – Result is rejected
Z, etc. – Specific description qualifiers that are applied during validation.
Definitions are provided at the beginning of Appendix A. The letters can vary and there can be more than one letter.

			Sample Name	SVL-546-SA5D-SB-5.0-6.0	SVL-550-SA5D-SB-5.0-6.0	SVL-577-SA5B-SB-5.3-5.8	SVL-518-SA5C-SB-5.5-6.0	SVL-549-SA5C-SB-6.3-6.8	SVL-519-SA8-SB-7.5-8.0	SVL-562-SA5B-SB-8.0-9.0	SVL-553-SA5D-SB-9.0-10.0	SVL-517-SA8-SB-10.0-11.0
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	05/27/2014	05/27/2014	06/04/2014	06/02/2014	06/10/2014	05/16/2014	06/10/2014	06/03/2014	05/19/2014
			SDG	PH200	PH200	PH216	PH211	PH226	PH181	PH226	PH214	PH183
			Start Depth	5	5	5.3	5.5	6.3	7.5	8	9	10
			End Depth	6	6	5.8	6	6.8	8	9	10	11
Analytic Method	CAS Number	Chemical Name	Unit									
8260B	100-41-4	Ethylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	100-42-5	Styrene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	10061-01-5	cis-1,3-Dichloropropene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	10061-02-6	trans-1,3-Dichloropropene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	103-65-1	n-Propylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	104-51-8	n-Butylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	106-43-4	4-Chlorotoluene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	106-46-7	1,4-Dichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	106-93-4	1,2-Dibromoethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	107-02-8	Acrolein	µg/kg	100 U	100 U	94 U	110 U	91 U	110 U	100 U	98 U	110 U
8260B	107-06-2	1,2-Dichloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	107-13-1	Acrylonitrile	µg/kg	21 U	20 U	19 U	22 U	18 U	22 U	21 U	20 U	21 U
8260B	108-05-4	Vinyl Acetate	µg/kg	10 U	10 U	9 U	11 U	9 U	11 U	10 U	10 U	11 U
8260B	108-10-1	4-Methyl-2-pentanone (MIBK)	µg/kg	10 U	10 U	9 U	11 U	9 U	11 U	10 U	10 U	11 U
8260B	108-20-3	Di isopropyl Ether	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	108-67-8	1,3,5-Trimethylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	108-86-1	Bromobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	108-88-3	Toluene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	108-90-7	Chlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	110-75-8	2-Chloroethyl Vinyl Ether	µg/kg	10 U	10 U	9 U	11 U	9 U	11 U	10 U	10 U	11 U
8260B	120-82-1	1,2,4-Trichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	124-48-1	Dibromochloromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	127-18-4	Tetrachloroethene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	135-98-8	2-Phenylbutane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	142-28-9	1,3-Dichloropropane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	156-59-2	cis-1,2-Dichloroethene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	156-60-5	trans-1,2-Dichloroethene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	1634-04-4	Methyl Tert-Butyl Ether	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	179601-23-1	m,p-Xylene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	541-73-1	1,3-Dichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	544-10-5	1-Chlorohexane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	56-23-5	Carbon Tetrachloride	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	563-58-6	1,1-Dichloropropene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	591-78-6	2-Hexanone	µg/kg	10 U	10 U	9 U	11 U	9 U	11 U	10 U	10 U	11 U
8260B	594-20-7	2,2-Dichloropropane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	630-20-6	1,1,1,2-Tetrachloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	637-92-3	tert-Butyl ethyl ether	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	67-64-1	Acetone	µg/kg	21 U	20 U	19 U	22 U	18 U	22 U	21 U	20 U	21 U
8260B	67-66-3	Chloroform	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	71-43-2	Benzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	71-55-6	1,1,1-Trichloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	74-83-9	Bromomethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	74-87-3	Chloromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	74-88-4	Methyl Iodide	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	74-95-3	Dibromomethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	74-97-5	Bromochloromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	75-00-3	Chloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	75-01-4	Vinyl Chloride	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	75-09-2	Methylene Chloride	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	75-15-0	Carbon Disulfide	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	75-25-2	Bromoform	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	75-27-4	Bromodichloromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	75-34-3	1,1-Dichloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	75-35-4	1,1-Dichloroethene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	75-65-0	Tertiary butyl alcohol	µg/kg	51 U	51 U	47 U	55 U	45 U	54 U	52 U	49 U	54 U
8260B	75-69-4	Trichlorofluoromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	75-71-8	Dichlorodifluoromethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	75-88-7	2-Chloro-1,1,1-trifluoroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

				Sample Name	SVL-546-SA5D-SB-5.0-6.0	SVL-550-SA5D-SB-5.0-6.0	SVL-577-SA5B-SB-5.3-5.8	SVL-518-SA5C-SB-5.5-6.0	SVL-549-SA5C-SB-6.3-6.8	SVL-519-SA8-SB-7.5-8.0	SVL-562-SA5B-SB-8.0-9.0	SVL-553-SA5D-SB-9.0-10.0	SVL-517-SA8-SB-10.0-11.0
				Sample Type	N	N	N	N	N	N	N	N	N
				Sample Date	05/27/2014	05/27/2014	06/04/2014	06/02/2014	06/10/2014	05/16/2014	06/10/2014	06/03/2014	05/19/2014
				SDG	PH200	PH200	PH216	PH211	PH226	PH181	PH226	PH214	PH183
				Start Depth	5	5	5.3	5.5	6.3	7.5	8	9	10
				End Depth	6	6	5.8	6	6.8	8	9	10	11
Analytic Method	CAS Number	Chemical Name	Unit										
8260B	78-87-5	1,2-Dichloropropane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	78-93-3	2-Butanone (MEK)	µg/kg	10 U	10 U	9 U	11 U	9 U	11 U	10 U	10 U	11 U	
8260B	79-00-5	1,1,2-Trichloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	79-01-6	Trichloroethene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	79-34-5	1,1,2,2-Tetrachloroethane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	79-38-9	Chlorotrifluoroethylene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	87-61-6	1,2,3-Trichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	87-68-3	Hexachloro-1,3-butadiene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	95-47-6	o-Xylene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	95-49-8	2-Chlorotoluene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	95-50-1	1,2-Dichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	95-63-6	1,2,4-Trimethylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	96-12-8	1,2-Dibromo-3-chloropropane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	96-18-4	1,2,3-Trichloropropane	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	98-06-6	tert-Butylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	98-82-8	Isopropylbenzene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	994-05-8	Tertiary amyl methyl ether	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
8260B	99-87-6	Cymene	µg/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

U – Compound not detected above reporting limit
J – Result is an estimated value
R – Result is rejected
Z, etc. – Specific description qualifiers that are applied during validation.
Definitions are provided at the beginning of Appendix A. The letters can vary and there can be more than one letter.

				Sample Name	SVL-525-SA5C-SB-10.0-11.0	SVL-556-SA5D-SB-10.0-11.0	SVL-561-SA5C-SB-10.5-11.0	SVL-518-SA5C-SB-11.0-11.5	SVL-528-SA8-SB-11.0-12.0	SVL-553-SA5D-SB-14.0-15.0	SVL-525-SA5C-SB-15.0-16.0	SVL-517-SA8-SB-15.5-16.5
				Sample Type	N	N	N	N	N	N	N	N
				Sample Date	05/20/2014	06/03/2014	06/10/2014	06/02/2014	05/19/2014	06/03/2014	05/20/2014	05/19/2014
				SDG	PH186	PH214	PH226	PH211	PH183	PH214	PH186	PH183
				Start Depth	10	10	10.5	11	11	14	15	15.5
				End Depth	11	11	11	11.5	12	15	16	16.5
Analytic Method	CAS Number	Chemical Name	Unit									
8260B	100-41-4	Ethylbenzene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	100-42-5	Styrene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	10061-01-5	cis-1,3-Dichloropropene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	10061-02-6	trans-1,3-Dichloropropene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	103-65-1	n-Propylbenzene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	104-51-8	n-Butylbenzene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	106-43-4	4-Chlorotoluene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	106-46-7	1,4-Dichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	106-93-4	1,2-Dibromoethane	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	107-02-8	Acrolein	µg/kg	100 U	100 U	90 U	100 U	120 U	110 U	100 U	110 U	
8260B	107-06-2	1,2-Dichloroethane	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	107-13-1	Acrylonitrile	µg/kg	20 U	21 U	18 U	21 U	25 U	21 U	20 U	21 U	
8260B	108-05-4	Vinyl Acetate	µg/kg	10 U	10 U	9 U	10 U	12 U	11 U	10 U	11 U	
8260B	108-10-1	4-Methyl-2-pentanone (MIBK)	µg/kg	10 U	10 U	9 U	10 U	12 U	11 U	10 U	11 U	
8260B	108-20-3	Di isopropyl Ether	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	108-67-8	1,3,5-Trimethylbenzene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	108-86-1	Bromobenzene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	108-88-3	Toluene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	108-90-7	Chlorobenzene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	110-75-8	2-Chloroethyl Vinyl Ether	µg/kg	10 U	10 U	9 U	10 U	12 U	11 U	10 U	11 U	
8260B	120-82-1	1,2,4-Trichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	124-48-1	Dibromochloromethane	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	127-18-4	Tetrachloroethene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	135-98-8	2-Phenylbutane	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	142-28-9	1,3-Dichloropropane	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	156-59-2	cis-1,2-Dichloroethene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	156-60-5	trans-1,2-Dichloroethene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	1634-04-4	Methyl Tert-Butyl Ether	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	179601-23-1	m,p-Xylene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	541-73-1	1,3-Dichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	544-10-5	1-Chlorohexane	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	56-23-5	Carbon Tetrachloride	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	563-58-6	1,1-Dichloropropene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	591-78-6	2-Hexanone	µg/kg	10 U	10 U	9 U	10 U	12 U	11 U	10 U	11 U	
8260B	594-20-7	2,2-Dichloropropane	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	630-20-6	1,1,1,2-Tetrachloroethane	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	637-92-3	tert-Butyl ethyl ether	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	67-64-1	Acetone	µg/kg	20 U	21 U	18 U	21 U	25 U	21 U	20 U	21 U	
8260B	67-66-3	Chloroform	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	71-43-2	Benzene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	71-55-6	1,1,1-Trichloroethane	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	74-83-9	Bromomethane	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	74-87-3	Chloromethane	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	74-88-4	Methyl Iodide	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	74-95-3	Dibromomethane	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	74-97-5	Bromochloromethane	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	75-00-3	Chloroethane	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	75-01-4	Vinyl Chloride	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	75-09-2	Methylene Chloride	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	75-15-0	Carbon Disulfide	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	75-25-2	Bromoform	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	75-27-4	Bromodichloromethane	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	75-34-3	1,1-Dichloroethane	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	75-35-4	1,1-Dichloroethene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	75-65-0	Tertiary butyl alcohol	µg/kg	51 U	51 U	45 U	51 U	62 U	53 U	51 U	53 U	
8260B	75-69-4	Trichlorofluoromethane	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	75-71-8	Dichlorodifluoromethane	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	75-88-7	2-Chloro-1,1,1-trifluoroethane	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	
8260B	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	

				Sample Name	SVL-525-SA5C-SB-10.0-11.0	SVL-556-SA5D-SB-10.0-11.0	SVL-561-SA5C-SB-10.5-11.0	SVL-518-SA5C-SB-11.0-11.5	SVL-528-SA8-SB-11.0-12.0	SVL-553-SA5D-SB-14.0-15.0	SVL-525-SA5C-SB-15.0-16.0	SVL-517-SA8-SB-15.5-16.5
				Sample Type	N	N	N	N	N	N	N	N
				Sample Date	05/20/2014	06/03/2014	06/10/2014	06/02/2014	05/19/2014	06/03/2014	05/20/2014	05/19/2014
				SDG	PH186	PH214	PH226	PH211	PH183	PH214	PH186	PH183
				Start Depth	10	10	10.5	11	11	14	15	15.5
				End Depth	11	11	11	11.5	12	15	16	16.5
Analytic Method	CAS Number	Chemical Name	Unit									
8260B	78-87-5	1,2-Dichloropropane	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U
8260B	78-93-3	2-Butanone (MEK)	µg/kg	10 U	10 U	9 U	10 U	12 U	11 U	10 U	11 U
8260B	79-00-5	1,1,2-Trichloroethane	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U
8260B	79-01-6	Trichloroethene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U
8260B	79-34-5	1,1,2,2-Tetrachloroethane	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U
8260B	79-38-9	Chlorotrifluoroethylene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U
8260B	87-61-6	1,2,3-Trichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U
8260B	87-68-3	Hexachloro-1,3-butadiene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U
8260B	95-47-6	o-Xylene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U
8260B	95-49-8	2-Chlorotoluene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U
8260B	95-50-1	1,2-Dichlorobenzene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U
8260B	95-63-6	1,2,4-Trimethylbenzene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U
8260B	96-12-8	1,2-Dibromo-3-chloropropane	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U
8260B	96-18-4	1,2,3-Trichloropropane	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U
8260B	98-06-6	tert-Butylbenzene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U
8260B	98-82-8	Isopropylbenzene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U
8260B	994-05-8	Tertiary amyl methyl ether	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U
8260B	99-87-6	Cymene	µg/kg	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U

U – Compound not detected above reporting limit
J – Result is an estimated value
R – Result is rejected
Z, etc. – Specific description qualifiers that are applied during validation.
Definitions are provided at the beginning of Appendix A. The letters can vary and there can be more than one letter.

			Sample Name	SVL-553-SA5D-SB-19.0-20.0
			Sample Type	N
			Sample Date	06/03/2014
			SDG	PH214
			Start Depth	19
			End Depth	20
Analytic Method	CAS Number	Chemical Name	Unit	
8260B	100-41-4	Ethylbenzene	µg/kg	5 U
8260B	100-42-5	Styrene	µg/kg	5 U
8260B	10061-01-5	cis-1,3-Dichloropropene	µg/kg	5 U
8260B	10061-02-6	trans-1,3-Dichloropropene	µg/kg	5 U
8260B	103-65-1	n-Propylbenzene	µg/kg	5 U
8260B	104-51-8	n-Butylbenzene	µg/kg	5 U
8260B	106-43-4	4-Chlorotoluene	µg/kg	5 U
8260B	106-46-7	1,4-Dichlorobenzene	µg/kg	5 U
8260B	106-93-4	1,2-Dibromoethane	µg/kg	5 U
8260B	107-02-8	Acrolein	µg/kg	100 U
8260B	107-06-2	1,2-Dichloroethane	µg/kg	5 U
8260B	107-13-1	Acrylonitrile	µg/kg	21 U
8260B	108-05-4	Vinyl Acetate	µg/kg	10 U
8260B	108-10-1	4-Methyl-2-pentanone (MIBK)	µg/kg	10 U
8260B	108-20-3	Di isopropyl Ether	µg/kg	5 U
8260B	108-67-8	1,3,5-Trimethylbenzene	µg/kg	5 U
8260B	108-86-1	Bromobenzene	µg/kg	5 U
8260B	108-88-3	Toluene	µg/kg	5 U
8260B	108-90-7	Chlorobenzene	µg/kg	5 U
8260B	110-75-8	2-Chloroethyl Vinyl Ether	µg/kg	10 U
8260B	120-82-1	1,2,4-Trichlorobenzene	µg/kg	5 U
8260B	124-48-1	Dibromochloromethane	µg/kg	5 U
8260B	127-18-4	Tetrachloroethene	µg/kg	5 U
8260B	135-98-8	2-Phenylbutane	µg/kg	5 U
8260B	142-28-9	1,3-Dichloropropane	µg/kg	5 U
8260B	156-59-2	cis-1,2-Dichloroethene	µg/kg	5 U
8260B	156-60-5	trans-1,2-Dichloroethene	µg/kg	5 U
8260B	1634-04-4	Methyl Tert-Butyl Ether	µg/kg	5 U
8260B	179601-23-1	m,p-Xylene	µg/kg	5 U
8260B	541-73-1	1,3-Dichlorobenzene	µg/kg	5 U
8260B	544-10-5	1-Chlorohexane	µg/kg	5 U
8260B	56-23-5	Carbon Tetrachloride	µg/kg	5 U
8260B	563-58-6	1,1-Dichloropropene	µg/kg	5 U
8260B	591-78-6	2-Hexanone	µg/kg	10 U
8260B	594-20-7	2,2-Dichloropropane	µg/kg	5 U
8260B	630-20-6	1,1,1,2-Tetrachloroethane	µg/kg	5 U
8260B	637-92-3	tert-Butyl ethyl ether	µg/kg	5 U
8260B	67-64-1	Acetone	µg/kg	21 U
8260B	67-66-3	Chloroform	µg/kg	5 U
8260B	71-43-2	Benzene	µg/kg	5 U
8260B	71-55-6	1,1,1-Trichloroethane	µg/kg	5 U
8260B	74-83-9	Bromomethane	µg/kg	5 U
8260B	74-87-3	Chloromethane	µg/kg	5 U
8260B	74-88-4	Methyl Iodide	µg/kg	5 U
8260B	74-95-3	Dibromomethane	µg/kg	5 U
8260B	74-97-5	Bromochloromethane	µg/kg	5 U
8260B	75-00-3	Chloroethane	µg/kg	5 U
8260B	75-01-4	Vinyl Chloride	µg/kg	5 U
8260B	75-09-2	Methylene Chloride	µg/kg	5 U
8260B	75-15-0	Carbon Disulfide	µg/kg	5 U
8260B	75-25-2	Bromoform	µg/kg	5 U
8260B	75-27-4	Bromodichloromethane	µg/kg	5 U
8260B	75-34-3	1,1-Dichloroethane	µg/kg	5 U
8260B	75-35-4	1,1-Dichloroethene	µg/kg	5 U
8260B	75-65-0	Tertiary butyl alcohol	µg/kg	52 U
8260B	75-69-4	Trichlorofluoromethane	µg/kg	5 U
8260B	75-71-8	Dichlorodifluoromethane	µg/kg	5 U
8260B	75-88-7	2-Chloro-1,1,1-trifluoroethane	µg/kg	5 U
8260B	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/kg	5 U

			Sample Name	SVL-553-SA5D-SB-19.0-20.0
			Sample Type	N
			Sample Date	06/03/2014
			SDG	PH214
			Start Depth	19
			End Depth	20
Analytic Method	CAS Number	Chemical Name	Unit	
8260B	78-87-5	1,2-Dichloropropane	µg/kg	5 U
8260B	78-93-3	2-Butanone (MEK)	µg/kg	10 U
8260B	79-00-5	1,1,2-Trichloroethane	µg/kg	5 U
8260B	79-01-6	Trichloroethene	µg/kg	5 U
8260B	79-34-5	1,1,2,2-Tetrachloroethane	µg/kg	5 U
8260B	79-38-9	Chlorotrifluoroethylene	µg/kg	5 U
8260B	87-61-6	1,2,3-Trichlorobenzene	µg/kg	5 U
8260B	87-68-3	Hexachloro-1,3-butadiene	µg/kg	5 U
8260B	95-47-6	o-Xylene	µg/kg	5 U
8260B	95-49-8	2-Chlorotoluene	µg/kg	5 U
8260B	95-50-1	1,2-Dichlorobenzene	µg/kg	5 U
8260B	95-63-6	1,2,4-Trimethylbenzene	µg/kg	5 U
8260B	96-12-8	1,2-Dibromo-3-chloropropane	µg/kg	5 U
8260B	96-18-4	1,2,3-Trichloropropane	µg/kg	5 U
8260B	98-06-6	tert-Butylbenzene	µg/kg	5 U
8260B	98-82-8	Isopropylbenzene	µg/kg	5 U
8260B	994-05-8	Tertiary amyl methyl ether	µg/kg	5 U
8260B	99-87-6	Cymene	µg/kg	5 U

U – Compound not detected above reporting limit
J – Result is an estimated value
R – Result is rejected
Z, etc. – Specific description qualifiers that are applied during validation.
Definitions are provided at the beginning of Appendix A. The letters can vary and there can be more than one letter.

Appendix B
Laboratory Reports
(On CD)

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

January 24, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 01/14/2014
Group Number: 1445714
SDG: PH158
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SL-840-SA5B-SB-0.0-0.5 Soil	7335015
SL-840-SA5B-SB-4.0-5.0 Soil	7335016
SL-840-SA5B-SB-7.0-8.0 Soil	7335017
SL-838-SA5B-SB-0.0-0.5 Soil	7335018
SL-838-SA5B-SB-4.0-5.0 Soil	7335019
SL-838-SA5B-SB-4.0-5.0MS Soil	7335020
SL-838-SA5B-SB-4.0-5.0MSD Soil	7335021
SL-838-SA5B-SB-4.0-5.0DUP Soil	7335022
SL-1138-SA5B-SB-4.0-5.0 Soil	7335023
TB-011314 Water	7335024

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: SL-840-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335015
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 10:00 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84000 SDG#: PH158-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	0.75	J	1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	0.83	J	1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.3	J	1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	0.95	J	1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	1.7	J	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	8.0	J	19	6.3	1
12969	Fluoranthene	206-44-0	1.9		1.7	0.70	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.70	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.4	J	1.7	0.70	1
12969	Pyrene	129-00-0	2.1		1.7	0.70	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	10	1
13099	Aroclor 5442	12642-23-8	35	U	35	10	1
13099	Aroclor 5460	11126-42-4	35	U	35	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	12	J	18	3.5	1
13099	PCB-1254	11097-69-1	8.4	J	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C21-C30)	n.a.	7.1		5.3	2.1	1
12952	EFH (C30-C40)	n.a.	15		11	4.3	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

Sample Description: SL-840-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335015
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 10:00 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84000 SDG#: PH158-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,600		42.3	7.62	1
06944	Antimony	7440-36-0	4.23	U	4.23	0.782	1
06935	Arsenic	7440-38-2	4.47		4.23	0.740	1
06946	Barium	7440-39-3	99.7		1.06	0.0349	1
06947	Beryllium	7440-41-7	0.588	J	1.06	0.0708	1
07914	Boron	7440-42-8	1.51	J	10.6	0.888	1
06949	Cadmium	7440-43-9	1.06	U	1.06	0.0803	1
01650	Calcium	7440-70-2	2,170		21.1	3.53	1
06951	Chromium	7440-47-3	17.2		3.17	0.169	1
06952	Cobalt	7440-48-4	5.42		1.06	0.105	1
06953	Copper	7440-50-8	10.3		2.11	0.306	1
01654	Iron	7439-89-6	18,200		42.3	3.83	1
06955	Lead	7439-92-1	8.44		3.17	0.528	1
01656	Lithium	7439-93-2	17.8		4.2	0.36	1
01657	Magnesium	7439-95-4	3,430		10.6	1.76	1
06958	Manganese	7439-96-5	304		1.06	0.0877	1
06960	Molybdenum	7439-98-7	0.592	J	2.11	0.180	1
06961	Nickel	7440-02-0	11.2		2.11	0.137	1
10145	Phosphorus	7723-14-0	259		10.6	3.05	1
01662	Potassium	7440-09-7	2,620		106	8.81	1
01667	Sodium	7440-23-5	141		106	17.6	1
06969	Tin	7440-31-5	2.68	J	10.6	0.232	1
06970	Titanium	7440-32-6	1,020		1.06	0.180	1
06971	Vanadium	7440-62-2	31.9		1.06	0.137	1
06972	Zinc	7440-66-6	60.1		4.23	0.211	1
10146	Zirconium	7440-67-7	2.07	J	5.28	0.888	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.161	J	0.423	0.106	2
06142	Silver	7440-22-4	0.0423	J	0.211	0.0275	2
06144	Strontium	7440-24-6	18.4		0.423	0.0719	2
06145	Thallium	7440-28-0	0.274		0.211	0.0317	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0227		0.0175	0.0105	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 19.7 C.	n.a.	6.99		0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	6.3		0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-840-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335015
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 10:00 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84000 SDG#: PH158-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0530 JBQ	1.03	0.0518	1
11031	12378-PeCDD	40321-76-4	0.0435 JQ	5.17	0.0331	1
11031	123478-HxCDD	39227-28-6	0.0638 JBQ	5.17	0.0319	1
11031	123678-HxCDD	57653-85-7	0.321 JBQ	5.17	0.0334	1
11031	123789-HxCDD	19408-74-3	0.391 JB	5.17	0.0324	1
11031	1234678-HpCDD	35822-46-9	2.84 JB	5.17	0.0374	1
11031	OCDD	3268-87-9	36.4 B	10.3	0.0265	1
11031	2378-TCDF	51207-31-9	1.03 U	1.03	0.0470	1
11031	12378-PeCDF	57117-41-6	5.17 U	5.17	0.0221	1
11031	23478-PeCDF	57117-31-4	0.0637 JBQ	5.17	0.0209	1
11031	123478-HxCDF	70648-26-9	0.0733 JB	5.17	0.0238	1
11031	123678-HxCDF	57117-44-9	0.0938 JB	5.17	0.0230	1
11031	123789-HxCDF	72918-21-9	0.293 JB	5.17	0.0247	1
11031	234678-HxCDF	60851-34-5	0.0809 JBQ	5.17	0.0237	1
11031	1234678-HpCDF	67562-39-4	0.537 JB	5.17	0.0156	1
11031	1234789-HpCDF	55673-89-7	0.0569 JBQ	5.17	0.0197	1
11031	OCDF	39001-02-0	1.40 JB	10.3	0.0330	1
D/F Toxic Equivalents	**EPA 1613B**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.130			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	66	25 - 164
13C12-12378-PeCDD	68	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	79	17 - 157
13C12-2378-TCDF	62	24 - 169
13C12-12378-PeCDF	66	24 - 185
13C12-23478-PeCDF	66	21 - 178
13C12-123478-HxCDF	76	26 - 152
13C12-123678-HxCDF	78	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	81	29 - 147
13C12-1234678-HpCDF	82	28 - 143
13C12-1234789-HpCDF	74	26 - 138
13C12-OCDF	73	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

Sample Description: SL-840-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335015
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 10:00 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84000 SDG#: PH158-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-840-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335015
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 10:00 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84000 SDG#: PH158-01

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14016SLC026	01/21/2014 12:11	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14016SLC026	01/17/2014 08:05	Olivia Arosemena	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	140160015A	01/20/2014 21:28	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	140160015A	01/17/2014 08:05	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	140170002A	01/18/2014 07:27	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	140170002A	01/17/2014 16:40	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	14017001	01/20/2014 15:15	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	14017001	01/17/2014 12:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	140140637001	01/15/2014 07:24	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	140140637001B	01/23/2014 18:31	John P Hook	2
06142	Silver	SW-846 6020A	1	140140637001A	01/23/2014 18:31	John P Hook	2
06144	Strontium	SW-846 6020A	1	140140637001A	01/23/2014 21:07	John P Hook	2
06145	Thallium	SW-846 6020A	1	140140637001A	01/23/2014 18:31	John P Hook	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-840-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335015
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 10:00 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84000 SDG#: PH158-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	140140638001	01/15/2014 11:16	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	140140637001	01/14/2014 23:13	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	140140638001	01/15/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14016039401A	01/16/2014 09:30	Yolunder Y Bunch	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14022162401A	01/22/2014 22:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-840-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335016
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 10:40 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84040 SDG#: PH158-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.73	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.73	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.73	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.73	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.73	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.73	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.5	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.5	1
12969	Chrysene	218-01-9	0.58	J	1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.73	1
12969	Diethylphthalate	84-66-2	20	U	20	6.5	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.5	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20	U	20	6.5	1
12969	Fluoranthene	206-44-0	0.93	J	1.8	0.73	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.73	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.73	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.73	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.73	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.73	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.73	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.5	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.73	1
12969	Pyrene	129-00-0	0.99	J	1.8	0.73	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	0.9	U	0.9	0.2	21.19
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.6	1
13099	PCB-1221	11104-28-2	18	U	18	5.5	1
13099	PCB-1232	11141-16-5	18	U	18	4.5	1
13099	PCB-1242	53469-21-9	18	U	18	4.5	1
13099	PCB-1248	12672-29-6	18	U	18	3.6	1
13099	PCB-1254	11097-69-1	18	U	18	4.8	1
13099	PCB-1260	11096-82-5	18	U	18	4.2	1
13099	PCB-1262	37324-23-5	18	U	18	3.6	1
13099	PCB-1268	11100-14-4	18	U	18	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	5.5	U	5.5	2.2	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-840-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335016
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 10:40 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84040 SDG#: PH158-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.4	1
12952	EFH (C8-C11)	n.a.	5.5	U	5.5	2.2	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	17,800		43.8	7.90	1
06944	Antimony	7440-36-0	4.38	U	4.38	0.810	1
06935	Arsenic	7440-38-2	5.25		4.38	0.767	1
06946	Barium	7440-39-3	117		1.10	0.0361	1
06947	Beryllium	7440-41-7	0.671	J	1.10	0.0734	1
07914	Boron	7440-42-8	0.927	J	11.0	0.920	1
06949	Cadmium	7440-43-9	1.10	U	1.10	0.0832	1
01650	Calcium	7440-70-2	2,900		21.9	3.66	1
06951	Chromium	7440-47-3	21.2		3.29	0.175	1
06952	Cobalt	7440-48-4	3.77		1.10	0.108	1
06953	Copper	7440-50-8	9.74		2.19	0.318	1
01654	Iron	7439-89-6	21,100		43.8	3.96	1
06955	Lead	7439-92-1	7.82		3.29	0.548	1
01656	Lithium	7439-93-2	22.5		4.4	0.37	1
01657	Magnesium	7439-95-4	4,000		11.0	1.83	1
06958	Manganese	7439-96-5	206		1.10	0.0909	1
06960	Molybdenum	7439-98-7	0.571	J	2.19	0.186	1
06961	Nickel	7440-02-0	11.3		2.19	0.142	1
10145	Phosphorus	7723-14-0	142		11.0	3.17	1
01662	Potassium	7440-09-7	1,760		110	9.13	1
01667	Sodium	7440-23-5	78.5	J	110	18.3	1
06969	Tin	7440-31-5	2.69	J	11.0	0.241	1
06970	Titanium	7440-32-6	1,150		1.10	0.186	1
06971	Vanadium	7440-62-2	39.8		1.10	0.142	1
06972	Zinc	7440-66-6	46.3		4.38	0.219	1
10146	Zirconium	7440-67-7	1.87	J	5.48	0.920	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.123	J	0.438	0.110	2
06142	Silver	7440-22-4	0.0545	J	0.219	0.0285	2
06144	Strontium	7440-24-6	25.5		0.438	0.0745	2
06145	Thallium	7440-28-0	0.270		0.219	0.0329	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0182	U	0.0182	0.0109	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 17.9 C.	n.a.	5.21		0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	9.6		0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-840-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335016
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 10:40 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84040 SDG#: PH158-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

Sample Description: SL-840-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335016
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 10:40 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84040 SDG#: PH158-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0790 JBQ	1.08	0.0722	1
11031	12378-PeCDD	40321-76-4	5.41 U	5.41	0.0451	1
11031	123478-HxCDD	39227-28-6	5.41 U	5.41	0.0258	1
11031	123678-HxCDD	57653-85-7	0.0623 JB	5.41	0.0275	1
11031	123789-HxCDD	19408-74-3	0.113 JBQ	5.41	0.0249	1
11031	1234678-HpCDD	35822-46-9	0.578 JBQ	5.41	0.0433	1
11031	OCDD	3268-87-9	4.65 JB	10.8	0.0258	1
11031	2378-TCDF	51207-31-9	1.08 U	1.08	0.0575	1
11031	12378-PeCDF	57117-41-6	0.0694 JBQ	5.41	0.0246	1
11031	23478-PeCDF	57117-31-4	0.0375 JBQ	5.41	0.0237	1
11031	123478-HxCDF	70648-26-9	0.0589 JBQ	5.41	0.0213	1
11031	123678-HxCDF	57117-44-9	0.0528 JBQ	5.41	0.0200	1
11031	123789-HxCDF	72918-21-9	0.134 JBQ	5.41	0.0224	1
11031	234678-HxCDF	60851-34-5	0.0212 JBQ	5.41	0.0210	1
11031	1234678-HpCDF	67562-39-4	0.115 JB	5.41	0.0154	1
11031	1234789-HpCDF	55673-89-7	0.0519 JBQ	5.41	0.0209	1
11031	OCDF	39001-02-0	0.301 JB	10.8	0.0441	1
D/F Toxic Equivalents	**EPA 1613B**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.00886			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	51	25 - 164
13C12-12378-PeCDD	61	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	75	17 - 157
13C12-2378-TCDF	48	24 - 169
13C12-12378-PeCDF	55	24 - 185
13C12-23478-PeCDF	57	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	79	28 - 143
13C12-1234789-HpCDF	68	26 - 138
13C12-OCDF	67	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

Sample Description: SL-840-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335016
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 10:40 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84040 SDG#: PH158-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-840-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335016
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 10:40 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84040 SDG#: PH158-02

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14016SLC026	01/21/2014 10:05	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14016SLC026	01/17/2014 08:05	Olivia Arosemena	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14016A16A	01/17/2014 17:51	Laura M Krieger	21.19
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201401433612	01/14/2014 18:26	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201401433612	01/14/2014 18:27	Lois E Hiltz	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	140160015A	01/20/2014 21:47	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	140160015A	01/17/2014 08:05	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	140170002A	01/18/2014 04:57	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	140170002A	01/17/2014 16:40	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	14017001	01/20/2014 16:12	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	14017001	01/17/2014 12:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	140140637001	01/15/2014 07:28	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-840-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335016
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 10:40 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84040 SDG#: PH158-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	140140637001B	01/23/2014 18:34	John P Hook	2
06142	Silver	SW-846 6020A	1	140140637001A	01/23/2014 18:34	John P Hook	2
06144	Strontium	SW-846 6020A	1	140140637001A	01/23/2014 21:09	John P Hook	2
06145	Thallium	SW-846 6020A	1	140140637001A	01/23/2014 18:34	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	140140638001	01/15/2014 11:19	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	140140637001	01/14/2014 23:13	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	140140638001	01/15/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14016039401A	01/16/2014 09:30	Yolunder Y Bunch	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14022162401A	01/22/2014 22:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-840-SA5B-SB-7.0-8.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335017
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 10:45 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84070 SDG#: PH158-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.9	U	1.9	0.76	1
12969	Acenaphthylene	208-96-8	1.9	U	1.9	0.38	1
12969	Anthracene	120-12-7	1.9	U	1.9	0.38	1
12969	Benzo(a)anthracene	56-55-3	1.9	U	1.9	0.76	1
12969	Benzo(a)pyrene	50-32-8	1.9	U	1.9	0.76	1
12969	Benzo(b)fluoranthene	205-99-2	1.9	U	1.9	0.76	1
12969	Benzo(e)pyrene	192-97-2	19	U	19	3.8	1
12969	Benzo(g,h,i)perylene	191-24-2	1.9	U	1.9	0.76	1
12969	Benzo(k)fluoranthene	207-08-9	1.9	U	1.9	0.76	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.8	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.8	1
12969	Chrysene	218-01-9	1.9	U	1.9	0.38	1
12969	Dibenz(a,h)anthracene	53-70-3	1.9	U	1.9	0.76	1
12969	Diethylphthalate	84-66-2	20	U	20	6.8	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.8	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20	U	20	6.8	1
12969	Fluoranthene	206-44-0	1.9	U	1.9	0.76	1
12969	Fluorene	86-73-7	1.9	U	1.9	0.76	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.9	U	1.9	0.76	1
12969	1-Methylnaphthalene	90-12-0	1.9		1.9	0.76	1
12969	2-Methylnaphthalene	91-57-6	3.4		1.9	0.76	1
12969	Naphthalene	91-20-3	6.4		1.9	0.76	1
12969	N-Nitrosodimethylamine	62-75-9	1.9	U	1.9	0.76	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.8	1
12969	Phenanthrene	85-01-8	1.9	U	1.9	0.76	1
12969	Pyrene	129-00-0	1.9	U	1.9	0.76	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.2	U	1.2	0.2	26.32
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	37	U	37	11	1
13099	Aroclor 5442	12642-23-8	37	U	37	11	1
13099	Aroclor 5460	11126-42-4	37	U	37	11	1
13099	PCB-1016	12674-11-2	19	U	19	3.7	1
13099	PCB-1221	11104-28-2	19	U	19	5.8	1
13099	PCB-1232	11141-16-5	19	U	19	4.6	1
13099	PCB-1242	53469-21-9	19	U	19	4.6	1
13099	PCB-1248	12672-29-6	19	U	19	3.7	1
13099	PCB-1254	11097-69-1	19	U	19	5.0	1
13099	PCB-1260	11096-82-5	19	U	19	4.4	1
13099	PCB-1262	37324-23-5	19	U	19	3.7	1
13099	PCB-1268	11100-14-4	19	U	19	3.7	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.8	U	5.8	2.3	1
12952	EFH (C15-C20)	n.a.	5.8	U	5.8	2.3	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-840-SA5B-SB-7.0-8.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335017
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 10:45 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84070 SDG#: PH158-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.8	U	5.8	2.3	1
12952	EFH (C30-C40)	n.a.	12	U	12	4.6	1
12952	EFH (C8-C11)	n.a.	5.8	U	5.8	2.3	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	16,300		45.2	8.14	1
06944	Antimony	7440-36-0	4.52	U	4.52	0.836	1
06935	Arsenic	7440-38-2	8.60		4.52	0.791	1
06946	Barium	7440-39-3	98.3		1.13	0.0373	1
06947	Beryllium	7440-41-7	0.697	J	1.13	0.0757	1
07914	Boron	7440-42-8	11.3	U	11.3	0.949	1
06949	Cadmium	7440-43-9	1.13	U	1.13	0.0858	1
01650	Calcium	7440-70-2	4,570		22.6	3.77	1
06951	Chromium	7440-47-3	24.6		3.39	0.181	1
06952	Cobalt	7440-48-4	6.11		1.13	0.112	1
06953	Copper	7440-50-8	16.4		2.26	0.328	1
01654	Iron	7439-89-6	27,600		45.2	4.09	1
06955	Lead	7439-92-1	9.81		3.39	0.565	1
01656	Lithium	7439-93-2	31.0		4.5	0.38	1
01657	Magnesium	7439-95-4	5,880		11.3	1.89	1
06958	Manganese	7439-96-5	257		1.13	0.0937	1
06960	Molybdenum	7439-98-7	0.322	J	2.26	0.192	1
06961	Nickel	7440-02-0	14.2		2.26	0.147	1
10145	Phosphorus	7723-14-0	499		11.3	3.26	1
01662	Potassium	7440-09-7	1,820		113	9.42	1
01667	Sodium	7440-23-5	72.8	J	113	18.9	1
06969	Tin	7440-31-5	3.16	J	11.3	0.248	1
06970	Titanium	7440-32-6	1,300		1.13	0.192	1
06971	Vanadium	7440-62-2	49.3		1.13	0.147	1
06972	Zinc	7440-66-6	65.0		4.52	0.226	1
10146	Zirconium	7440-67-7	1.04	J	5.65	0.949	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.157	J	0.452	0.113	2
06142	Silver	7440-22-4	0.226	U	0.226	0.0294	2
06144	Strontium	7440-24-6	28.8		0.452	0.0768	2
06145	Thallium	7440-28-0	0.294		0.226	0.0339	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0190	U	0.0190	0.0114	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 19.3 C.	n.a.	6.57		0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	13.2		0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-840-SA5B-SB-7.0-8.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335017
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 10:45 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84070 SDG#: PH158-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

Sample Description: SL-840-SA5B-SB-7.0-8.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335017
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 10:45 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84070 SDG#: PH158-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.13	U	1.13	0.0782	1
11031	12378-PeCDD	40321-76-4	5.66	U	5.66	0.0389	1
11031	123478-HxCDD	39227-28-6	5.66	U	5.66	0.0270	1
11031	123678-HxCDD	57653-85-7	0.0671	JBQ	5.66	0.0287	1
11031	123789-HxCDD	19408-74-3	0.0327	JB	5.66	0.0268	1
11031	1234678-HpCDD	35822-46-9	0.285	JB	5.66	0.0333	1
11031	OCDD	3268-87-9	1.77	JB	11.3	0.0287	1
11031	2378-TCDF	51207-31-9	1.13	U	1.13	0.0550	1
11031	12378-PeCDF	57117-41-6	0.0439	JBQ	5.66	0.0262	1
11031	23478-PeCDF	57117-31-4	0.0265	JB	5.66	0.0231	1
11031	123478-HxCDF	70648-26-9	0.0392	JBQ	5.66	0.0210	1
11031	123678-HxCDF	57117-44-9	0.0507	JBQ	5.66	0.0204	1
11031	123789-HxCDF	72918-21-9	0.0556	JB	5.66	0.0208	1
11031	234678-HxCDF	60851-34-5	0.0443	JBQ	5.66	0.0195	1
11031	1234678-HpCDF	67562-39-4	0.0857	JBQ	5.66	0.0124	1
11031	1234789-HpCDF	55673-89-7	0.0633	JBQ	5.66	0.0158	1
11031	OCDF	39001-02-0	0.177	JBQ	11.3	0.0429	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0202				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	52	25 - 164
13C12-12378-PeCDD	62	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	75	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	75	17 - 157
13C12-2378-TCDF	49	24 - 169
13C12-12378-PeCDF	56	24 - 185
13C12-23478-PeCDF	58	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	71	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	78	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	68	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

Sample Description: SL-840-SA5B-SB-7.0-8.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335017
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 10:45 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84070 SDG#: PH158-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-840-SA5B-SB-7.0-8.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335017
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 10:45 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84070 SDG#: PH158-03

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14016SLC026	01/21/2014 10:37	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14016SLC026	01/17/2014 08:05	Olivia Arosemena	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14016A16A	01/17/2014 18:28	Laura M Krieger	26.32
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201401433612	01/14/2014 18:28	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201401433612	01/14/2014 18:28	Lois E Hiltz	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	140160015A	01/20/2014 22:05	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	140160015A	01/17/2014 08:05	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	140170002A	01/18/2014 05:18	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	140170002A	01/17/2014 16:40	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	14017001	01/20/2014 17:08	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	14017001	01/17/2014 12:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	140140637001	01/15/2014 07:40	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-840-SA5B-SB-7.0-8.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335017
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 10:45 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84070 SDG#: PH158-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	140140637001B	01/23/2014 18:41	John P Hook	2
06142	Silver	SW-846 6020A	1	140140637001A	01/23/2014 18:41	John P Hook	2
06144	Strontium	SW-846 6020A	1	140140637001A	01/23/2014 21:14	John P Hook	2
06145	Thallium	SW-846 6020A	1	140140637001A	01/23/2014 18:41	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	140140638001	01/15/2014 11:21	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	140140637001	01/14/2014 23:13	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	140140638001	01/15/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14016039401A	01/16/2014 09:30	Yolunder Y Bunch	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14022162401A	01/22/2014 22:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-838-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335018
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 13:30 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83800 SDG#: PH158-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	1.7	U	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.69	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C21-C30)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

Sample Description: SL-838-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335018
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 13:30 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83800 SDG#: PH158-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,000		41.5	7.49	1
06944	Antimony	7440-36-0	4.15	U	4.15	0.769	1
06935	Arsenic	7440-38-2	4.97		4.15	0.727	1
06946	Barium	7440-39-3	89.8		1.04	0.0343	1
06947	Beryllium	7440-41-7	0.534	J	1.04	0.0696	1
07914	Boron	7440-42-8	10.4	U	10.4	0.872	1
06949	Cadmium	7440-43-9	1.04	U	1.04	0.0789	1
01650	Calcium	7440-70-2	4,010		20.8	3.47	1
06951	Chromium	7440-47-3	20.0		3.12	0.166	1
06952	Cobalt	7440-48-4	5.90		1.04	0.103	1
06953	Copper	7440-50-8	10.7		2.08	0.301	1
01654	Iron	7439-89-6	21,300		41.5	3.76	1
06955	Lead	7439-92-1	7.98		3.12	0.519	1
01656	Lithium	7439-93-2	25.3		4.2	0.35	1
01657	Magnesium	7439-95-4	4,910		10.4	1.73	1
06958	Manganese	7439-96-5	324		1.04	0.0862	1
06960	Molybdenum	7439-98-7	0.255	J	2.08	0.177	1
06961	Nickel	7440-02-0	12.2		2.08	0.135	1
10145	Phosphorus	7723-14-0	442		10.4	3.00	1
01662	Potassium	7440-09-7	2,830		104	8.66	1
01667	Sodium	7440-23-5	108		104	17.3	1
06969	Tin	7440-31-5	2.87	J	10.4	0.228	1
06970	Titanium	7440-32-6	1,170		1.04	0.177	1
06971	Vanadium	7440-62-2	38.9		1.04	0.135	1
06972	Zinc	7440-66-6	55.8		4.15	0.208	1
10146	Zirconium	7440-67-7	0.890	J	5.19	0.872	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.145	J	0.415	0.104	2
06142	Silver	7440-22-4	0.208	U	0.208	0.0270	2
06144	Strontium	7440-24-6	18.7		0.415	0.0706	2
06145	Thallium	7440-28-0	0.238		0.208	0.0312	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0172	U	0.0172	0.0103	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.12		0.0100	0.0100	1
	The pH was measured in water at 18.9 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	5.6		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-838-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335018
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 13:30 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83800 SDG#: PH158-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.01	U	1.01	0.0955	1
11031	12378-PeCDD	40321-76-4	0.189	J	5.06	0.0489	1
11031	123478-HxCDD	39227-28-6	0.0413	JBQ	5.06	0.0355	1
11031	123678-HxCDD	57653-85-7	0.230	JBQ	5.06	0.0370	1
11031	123789-HxCDD	19408-74-3	0.253	JB	5.06	0.0333	1
11031	1234678-HpCDD	35822-46-9	0.430	JB	5.06	0.0376	1
11031	OCDD	3268-87-9	4.59	JB	10.1	0.0282	1
11031	2378-TCDF	51207-31-9	0.131	JQ	1.01	0.0762	1
11031	12378-PeCDF	57117-41-6	0.157	JB	5.06	0.0284	1
11031	23478-PeCDF	57117-31-4	0.0885	JBQ	5.06	0.0264	1
11031	123478-HxCDF	70648-26-9	0.0916	JB	5.06	0.0271	1
11031	123678-HxCDF	57117-44-9	0.118	JB	5.06	0.0263	1
11031	123789-HxCDF	72918-21-9	0.138	JBQ	5.06	0.0295	1
11031	234678-HxCDF	60851-34-5	0.0979	JB	5.06	0.0267	1
11031	1234678-HpCDF	67562-39-4	0.142	JB	5.06	0.0134	1
11031	1234789-HpCDF	55673-89-7	0.0764	JB	5.06	0.0181	1
11031	OCDF	39001-02-0	0.382	JBQ	10.1	0.0417	1
D/F Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.257				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	39	25 - 164
13C12-12378-PeCDD	47	25 - 181
13C12-123478-HxCDD	63	32 - 141
13C12-123678-HxCDD	62	28 - 130
13C12-123789-HxCDD	63	28 - 130
13C12-1234678-HpCDD	66	23 - 140
13C12-OCDD	67	17 - 157
13C12-2378-TCDF	35	24 - 169
13C12-12378-PeCDF	43	24 - 185
13C12-23478-PeCDF	44	21 - 178
13C12-123478-HxCDF	55	26 - 152
13C12-123678-HxCDF	58	26 - 123
13C12-234678-HxCDF	58	28 - 136
13C12-123789-HxCDF	59	29 - 147
13C12-1234678-HpCDF	69	28 - 143
13C12-1234789-HpCDF	58	26 - 138
13C12-OCDF	58	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

Sample Description: SL-838-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335018
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 13:30 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83800 SDG#: PH158-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-838-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335018
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 13:30 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83800 SDG#: PH158-04

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14016SLC026	01/21/2014 11:08	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14016SLC026	01/17/2014 08:05	Olivia Arosemena	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	140160015A	01/20/2014 22:24	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	140160015A	01/17/2014 08:05	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	140170002A	01/18/2014 05:40	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	140170002A	01/17/2014 16:40	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	14017001	01/20/2014 18:05	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	14017001	01/17/2014 12:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	140140637001	01/15/2014 07:44	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	140140637001B	01/23/2014 18:43	John P Hook	2
06142	Silver	SW-846 6020A	1	140140637001A	01/23/2014 18:43	John P Hook	2
06144	Strontium	SW-846 6020A	1	140140637001A	01/23/2014 21:16	John P Hook	2
06145	Thallium	SW-846 6020A	1	140140637001A	01/23/2014 18:43	John P Hook	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-838-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335018
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 13:30 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83800 SDG#: PH158-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	140140638001	01/15/2014 11:23	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	140140637001	01/14/2014 23:13	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	140140638001	01/15/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14016039401A	01/16/2014 09:30	Yolunder Y Bunch	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14022162401A	01/22/2014 22:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-838-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335019
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 14:10 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83840 SDG#: PH158-05BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.72	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	0.49	J	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	3.5		1.8	0.72	1
12969	Benzo(a)pyrene	50-32-8	3.5		1.8	0.72	1
12969	Benzo(b)fluoranthene	205-99-2	5.7		1.8	0.72	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	1.9		1.8	0.72	1
12969	Benzo(k)fluoranthene	207-08-9	2.2		1.8	0.72	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.5	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.5	1
12969	Chrysene	218-01-9	5.0		1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.72	1
12969	Diethylphthalate	84-66-2	19	U	19	6.5	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.5	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.5	1
12969	Fluoranthene	206-44-0	3.7		1.8	0.72	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.72	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	J	1.8	0.72	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.72	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.72	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.72	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.72	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.5	1
12969	Phenanthrene	85-01-8	1.4	J	1.8	0.72	1
12969	Pyrene	129-00-0	4.7		1.8	0.72	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2	23.11
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.6	1
13099	PCB-1221	11104-28-2	18	U	18	5.5	1
13099	PCB-1232	11141-16-5	18	U	18	4.4	1
13099	PCB-1242	53469-21-9	18	U	18	4.4	1
13099	PCB-1248	12672-29-6	18	U	18	3.6	1
13099	PCB-1254	11097-69-1	18	U	18	4.8	1
13099	PCB-1260	11096-82-5	18	U	18	4.2	1
13099	PCB-1262	37324-23-5	18	U	18	3.6	1
13099	PCB-1268	11100-14-4	18	U	18	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	5.5	U	5.5	2.2	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-838-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335019
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 14:10 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83840 SDG#: PH158-05BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.4	1
12952	EFH (C8-C11)	n.a.	5.5	U	5.5	2.2	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	16,400		43.9	7.91	1
06944	Antimony	7440-36-0	4.39	U	4.39	0.812	1
06935	Arsenic	7440-38-2	5.05		4.39	0.768	1
06946	Barium	7440-39-3	108		1.10	0.0362	1
06947	Beryllium	7440-41-7	0.610	J	1.10	0.0735	1
07914	Boron	7440-42-8	1.17	J	11.0	0.922	1
06949	Cadmium	7440-43-9	1.10	U	1.10	0.0834	1
01650	Calcium	7440-70-2	4,330		22.0	3.67	1
06951	Chromium	7440-47-3	19.3		3.29	0.176	1
06952	Cobalt	7440-48-4	4.50		1.10	0.109	1
06953	Copper	7440-50-8	9.30		2.20	0.318	1
01654	Iron	7439-89-6	20,300		43.9	3.97	1
06955	Lead	7439-92-1	7.81		3.29	0.549	1
01656	Lithium	7439-93-2	21.4		4.4	0.37	1
01657	Magnesium	7439-95-4	4,070		11.0	1.83	1
06958	Manganese	7439-96-5	271		1.10	0.0911	1
06960	Molybdenum	7439-98-7	0.660	J	2.20	0.187	1
06961	Nickel	7440-02-0	10.8		2.20	0.143	1
10145	Phosphorus	7723-14-0	227		11.0	3.17	1
01662	Potassium	7440-09-7	2,330		110	9.15	1
01667	Sodium	7440-23-5	148		110	18.3	1
06969	Tin	7440-31-5	2.98	J	11.0	0.241	1
06970	Titanium	7440-32-6	1,150		1.10	0.187	1
06971	Vanadium	7440-62-2	37.5		1.10	0.143	1
06972	Zinc	7440-66-6	47.0		4.39	0.220	1
10146	Zirconium	7440-67-7	1.89	J	5.49	0.922	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.141	J	0.439	0.110	2
06142	Silver	7440-22-4	0.0415	J	0.220	0.0285	2
06144	Strontium	7440-24-6	23.2		0.439	0.0746	2
06145	Thallium	7440-28-0	0.245		0.220	0.0329	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0181	U	0.0181	0.0109	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 18.5 C.	n.a.	7.32		0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	8.9		0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-838-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335019
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 14:10 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83840 SDG#: PH158-05BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

Sample Description: SL-838-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335019
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 14:10 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83840 SDG#: PH158-05BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0707 JBQ	1.06	0.0650	1
11031	12378-PeCDD	40321-76-4	0.184 J	5.28	0.0436	1
11031	123478-HxCDD	39227-28-6	0.0389 JBQ	5.28	0.0291	1
11031	123678-HxCDD	57653-85-7	0.188 JB	5.28	0.0304	1
11031	123789-HxCDD	19408-74-3	0.250 JBQ	5.28	0.0287	1
11031	1234678-HpCDD	35822-46-9	0.807 JBQ	5.28	0.0338	1
11031	OCDD	3268-87-9	9.67 JB	10.6	0.0230	1
11031	2378-TCDF	51207-31-9	0.0752 JQ	1.06	0.0491	1
11031	12378-PeCDF	57117-41-6	0.206 JB	5.28	0.0229	1
11031	23478-PeCDF	57117-31-4	0.198 JBQ	5.28	0.0214	1
11031	123478-HxCDF	70648-26-9	0.183 JB	5.28	0.0292	1
11031	123678-HxCDF	57117-44-9	0.122 JBQ	5.28	0.0278	1
11031	123789-HxCDF	72918-21-9	0.193 JBQ	5.28	0.0304	1
11031	234678-HxCDF	60851-34-5	0.0918 JBQ	5.28	0.0272	1
11031	1234678-HpCDF	67562-39-4	0.212 JB	5.28	0.0143	1
11031	1234789-HpCDF	55673-89-7	0.109 JBQ	5.28	0.0196	1
11031	OCDF	39001-02-0	0.438 JB	10.6	0.0449	1
D/F Toxic Equivalents	**EPA 1613B**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.232			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	54	25 - 164
13C12-12378-PeCDD	61	25 - 181
13C12-123478-HxCDD	75	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	75	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	75	17 - 157
13C12-2378-TCDF	49	24 - 169
13C12-12378-PeCDF	57	24 - 185
13C12-23478-PeCDF	57	21 - 178
13C12-123478-HxCDF	68	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	69	29 - 147
13C12-1234678-HpCDF	79	28 - 143
13C12-1234789-HpCDF	65	26 - 138
13C12-OCDF	63	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

Sample Description: SL-838-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335019
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 14:10 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83840 SDG#: PH158-05BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-838-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335019
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 14:10 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83840 SDG#: PH158-05BKG

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14016SLC026	01/21/2014 08:31	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14016SLC026	01/17/2014 08:05	Olivia Arosemena	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14016A16A	01/17/2014 19:44	Laura M Krieger	23.11
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201401433612	01/14/2014 18:30	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201401433612	01/14/2014 18:31	Lois E Hiltz	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	140160015A	01/20/2014 22:42	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	140160015A	01/17/2014 08:05	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	140170002A	01/18/2014 06:01	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	140170002A	01/17/2014 16:40	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	14017001	01/20/2014 19:02	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	14017001	01/17/2014 12:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	140140637001	01/15/2014 07:01	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-838-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335019
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 14:10 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83840 SDG#: PH158-05BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	140140637001B	01/23/2014 18:17	John P Hook	2
06142	Silver	SW-846 6020A	1	140140637001A	01/23/2014 18:17	John P Hook	2
06144	Strontium	SW-846 6020A	1	140140637001A	01/23/2014 20:57	John P Hook	2
06145	Thallium	SW-846 6020A	1	140140637001A	01/23/2014 18:17	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	140140638001	01/15/2014 11:25	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	140140637001	01/14/2014 23:13	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	140140638001	01/15/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14016039401A	01/16/2014 09:30	Yolunder Y Bunch	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14022162401A	01/22/2014 22:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-838-SA5B-SB-4.0-5.0MS Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335020
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 14:10 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83840 SDG#: PH158-05MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	38		1.8	0.72	1
12969	Acenaphthylene	208-96-8	35		1.8	0.36	1
12969	Anthracene	120-12-7	34		1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	34		1.8	0.72	1
12969	Benzo(a)pyrene	50-32-8	32		1.8	0.72	1
12969	Benzo(b)fluoranthene	205-99-2	33		1.8	0.72	1
12969	Benzo(e)pyrene	192-97-2	30		18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	33		1.8	0.72	1
12969	Benzo(k)fluoranthene	207-08-9	33		1.8	0.72	1
12969	Butylbenzylphthalate	85-68-7	47		19	6.5	1
12969	Di-n-butylphthalate	84-74-2	43		19	6.5	1
12969	Chrysene	218-01-9	33		1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	34		1.8	0.72	1
12969	Diethylphthalate	84-66-2	34		19	6.5	1
12969	Dimethylphthalate	131-11-3	36		19	6.5	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	48		19	6.5	1
12969	Fluoranthene	206-44-0	34		1.8	0.72	1
12969	Fluorene	86-73-7	32		1.8	0.72	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	34		1.8	0.72	1
12969	1-Methylnaphthalene	90-12-0	33		1.8	0.72	1
12969	2-Methylnaphthalene	91-57-6	34		1.8	0.72	1
12969	Naphthalene	91-20-3	34		1.8	0.72	1
12969	N-Nitrosodimethylamine	62-75-9	33		1.8	0.72	1
12969	Di-n-octylphthalate	117-84-0	42		19	6.5	1
12969	Phenanthrene	85-01-8	36		1.8	0.72	1
12969	Pyrene	129-00-0	39		1.8	0.72	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	9.4		1.0	0.2	23.02
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	160		18	3.6	1
13099	PCB-1221	11104-28-2	18	U	18	5.5	1
13099	PCB-1232	11141-16-5	18	U	18	4.4	1
13099	PCB-1242	53469-21-9	18	U	18	4.4	1
13099	PCB-1248	12672-29-6	18	U	18	3.6	1
13099	PCB-1254	11097-69-1	18	U	18	4.8	1
13099	PCB-1260	11096-82-5	170		18	4.2	1
13099	PCB-1262	37324-23-5	18	U	18	3.6	1
13099	PCB-1268	11100-14-4	18	U	18	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.4	J	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	8.4		5.5	2.2	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-838-SA5B-SB-4.0-5.0MS Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335020
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 14:10 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83840 SDG#: PH158-05MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	14		5.5	2.2	1
12952	EFH (C30-C40)	n.a.	13		11	4.4	1
12952	EFH (C8-C11)	n.a.	4.6	J	5.5	2.2	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	19,900		43.9	7.91	1
06944	Antimony	7440-36-0	38.3		4.39	0.812	1
06935	Arsenic	7440-38-2	21.2		4.39	0.768	1
06946	Barium	7440-39-3	317		1.10	0.0362	1
06947	Beryllium	7440-41-7	6.01		1.10	0.0735	1
07914	Boron	7440-42-8	219		11.0	0.922	1
06949	Cadmium	7440-43-9	5.02		1.10	0.0834	1
01650	Calcium	7440-70-2	5,300		22.0	3.67	1
06951	Chromium	7440-47-3	41.9		3.29	0.176	1
06952	Cobalt	7440-48-4	57.6		1.10	0.109	1
06953	Copper	7440-50-8	38.0		2.20	0.318	1
01654	Iron	7439-89-6	20,300		43.9	3.97	1
06955	Lead	7439-92-1	24.8		3.29	0.549	1
01656	Lithium	7439-93-2	132		4.4	0.37	1
01657	Magnesium	7439-95-4	4,460		11.0	1.83	1
06958	Manganese	7439-96-5	345		1.10	0.0911	1
06960	Molybdenum	7439-98-7	210		2.20	0.187	1
06961	Nickel	7440-02-0	64.5		2.20	0.143	1
10145	Phosphorus	7723-14-0	368		11.0	3.17	1
01662	Potassium	7440-09-7	3,650		110	9.15	1
01667	Sodium	7440-23-5	1,220		110	18.3	1
06969	Tin	7440-31-5	397		11.0	0.241	1
06970	Titanium	7440-32-6	1,440		1.10	0.187	1
06971	Vanadium	7440-62-2	96.1		1.10	0.143	1
06972	Zinc	7440-66-6	103		4.39	0.220	1
10146	Zirconium	7440-67-7	108		5.49	0.922	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.45		0.439	0.110	2
06142	Silver	7440-22-4	11.9		0.220	0.0285	2
06144	Strontium	7440-24-6	31.5		0.439	0.0746	2
06145	Thallium	7440-28-0	0.684		0.220	0.0329	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.199		0.0179	0.0107	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	8.9		0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-838-SA5B-SB-4.0-5.0MS Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335020
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 14:10 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83840 SDG#: PH158-05MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	20.4	B	1.08	0.0930	1
11031	12378-PeCDD	40321-76-4	105		5.38	0.0551	1
11031	123478-HxCDD	39227-28-6	107	B	5.38	0.0603	1
11031	123678-HxCDD	57653-85-7	106	B	5.38	0.0629	1
11031	123789-HxCDD	19408-74-3	104	B	5.38	0.0590	1
11031	1234678-HpCDD	35822-46-9	104	B	5.38	0.0648	1
11031	OCDD	3268-87-9	210	B	10.8	0.0441	1
11031	2378-TCDF	51207-31-9	21.0		1.08	0.0713	1
11031	12378-PeCDF	57117-41-6	107	B	5.38	0.0387	1
11031	23478-PeCDF	57117-31-4	106	B	5.38	0.0355	1
11031	123478-HxCDF	70648-26-9	108	B	5.38	0.0608	1
11031	123678-HxCDF	57117-44-9	111	B	5.38	0.0588	1
11031	123789-HxCDF	72918-21-9	109	B	5.38	0.0661	1
11031	234678-HxCDF	60851-34-5	111	B	5.38	0.0599	1
11031	1234678-HpCDF	67562-39-4	108	B	5.38	0.0389	1
11031	1234789-HpCDF	55673-89-7	109	B	5.38	0.0498	1
11031	OCDF	39001-02-0	212	B	10.8	0.0588	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	46	25 - 164
13C12-12378-PeCDD	54	25 - 181
13C12-123478-HxCDD	70	32 - 141
13C12-123678-HxCDD	70	28 - 130
13C12-123789-HxCDD	70	28 - 130
13C12-1234678-HpCDD	69	23 - 140
13C12-OCDD	70	17 - 157
13C12-2378-TCDF	42	24 - 169
13C12-12378-PeCDF	49	24 - 185
13C12-23478-PeCDF	51	21 - 178
13C12-123478-HxCDF	62	26 - 152
13C12-123678-HxCDF	64	26 - 123
13C12-234678-HxCDF	63	28 - 136
13C12-123789-HxCDF	66	29 - 147
13C12-1234678-HpCDF	69	28 - 143
13C12-1234789-HpCDF	61	26 - 138
13C12-OCDF	61	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

Sample Description: SL-838-SA5B-SB-4.0-5.0MS Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335020
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 14:10 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83840 SDG#: PH158-05MS

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14016SLC026	01/21/2014 09:02	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14016SLC026	01/17/2014 08:05	Olivia Arosemena	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14016A16A	01/17/2014 20:22	Laura M Krieger	23.02
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201401433612	01/14/2014 18:32	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201401433612	01/14/2014 18:33	Lois E Hiltz	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	140160015A	01/20/2014 23:01	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	140160015A	01/17/2014 08:05	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	140170002A	01/18/2014 06:23	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	140170002A	01/17/2014 16:40	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	14017001	01/20/2014 19:58	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	14017001	01/17/2014 12:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	140140637001	01/15/2014 07:13	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-838-SA5B-SB-4.0-5.0MS Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335020
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 14:10 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83840 SDG#: PH158-05MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	140140637001B	01/23/2014 18:24	John P Hook	2
06142	Silver	SW-846 6020A	1	140140637001A	01/23/2014 18:24	John P Hook	2
06144	Strontium	SW-846 6020A	1	140140637001A	01/23/2014 21:02	John P Hook	2
06145	Thallium	SW-846 6020A	1	140140637001A	01/23/2014 18:24	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	140140638001	01/15/2014 11:31	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	140140637001	01/14/2014 23:13	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	140140638001	01/15/2014 01:30	Annamaria Kuhns	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14022162401A	01/22/2014 22:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-838-SA5B-SB-4.0-5.0MSD Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335021
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 14:10 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83840 SDG#: PH158-05MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	36		1.8	0.72	1
12969	Acenaphthylene	208-96-8	33		1.8	0.36	1
12969	Anthracene	120-12-7	35		1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	34		1.8	0.72	1
12969	Benzo(a)pyrene	50-32-8	33		1.8	0.72	1
12969	Benzo(b)fluoranthene	205-99-2	35		1.8	0.72	1
12969	Benzo(e)pyrene	192-97-2	30		18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	34		1.8	0.72	1
12969	Benzo(k)fluoranthene	207-08-9	33		1.8	0.72	1
12969	Butylbenzylphthalate	85-68-7	47		19	6.5	1
12969	Di-n-butylphthalate	84-74-2	46		19	6.5	1
12969	Chrysene	218-01-9	33		1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	35		1.8	0.72	1
12969	Diethylphthalate	84-66-2	33		19	6.5	1
12969	Dimethylphthalate	131-11-3	35		19	6.5	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	48		19	6.5	1
12969	Fluoranthene	206-44-0	37		1.8	0.72	1
12969	Fluorene	86-73-7	33		1.8	0.72	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	35		1.8	0.72	1
12969	1-Methylnaphthalene	90-12-0	32		1.8	0.72	1
12969	2-Methylnaphthalene	91-57-6	33		1.8	0.72	1
12969	Naphthalene	91-20-3	33		1.8	0.72	1
12969	N-Nitrosodimethylamine	62-75-9	31		1.8	0.72	1
12969	Di-n-octylphthalate	117-84-0	43		19	6.5	1
12969	Phenanthrene	85-01-8	36		1.8	0.72	1
12969	Pyrene	129-00-0	39		1.8	0.72	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	9.0		1.0	0.2	23.23
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	170		18	3.6	1
13099	PCB-1221	11104-28-2	18	U	18	5.5	1
13099	PCB-1232	11141-16-5	18	U	18	4.4	1
13099	PCB-1242	53469-21-9	18	U	18	4.4	1
13099	PCB-1248	12672-29-6	18	U	18	3.6	1
13099	PCB-1254	11097-69-1	18	U	18	4.8	1
13099	PCB-1260	11096-82-5	180		18	4.2	1
13099	PCB-1262	37324-23-5	18	U	18	3.6	1
13099	PCB-1268	11100-14-4	18	U	18	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	4.9	J	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	7.5		5.5	2.2	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-838-SA5B-SB-4.0-5.0MSD Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335021
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 14:10 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83840 SDG#: PH158-05MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	12		5.5	2.2	1
12952	EFH (C30-C40)	n.a.	12		11	4.4	1
12952	EFH (C8-C11)	n.a.	4.2	J	5.5	2.2	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	19,800		43.9	7.91	1
06944	Antimony	7440-36-0	39.3		4.39	0.812	1
06935	Arsenic	7440-38-2	21.1		4.39	0.768	1
06946	Barium	7440-39-3	314		1.10	0.0362	1
06947	Beryllium	7440-41-7	5.99		1.10	0.0735	1
07914	Boron	7440-42-8	217		11.0	0.922	1
06949	Cadmium	7440-43-9	4.97		1.10	0.0834	1
01650	Calcium	7440-70-2	4,840		22.0	3.67	1
06951	Chromium	7440-47-3	41.9		3.29	0.176	1
06952	Cobalt	7440-48-4	57.4		1.10	0.109	1
06953	Copper	7440-50-8	37.8		2.20	0.318	1
01654	Iron	7439-89-6	20,200		43.9	3.97	1
06955	Lead	7439-92-1	24.6		3.29	0.549	1
01656	Lithium	7439-93-2	131		4.4	0.37	1
01657	Magnesium	7439-95-4	4,380		11.0	1.83	1
06958	Manganese	7439-96-5	339		1.10	0.0911	1
06960	Molybdenum	7439-98-7	210		2.20	0.187	1
06961	Nickel	7440-02-0	64.1		2.20	0.143	1
10145	Phosphorus	7723-14-0	338		11.0	3.17	1
01662	Potassium	7440-09-7	3,620		110	9.15	1
01667	Sodium	7440-23-5	1,210		110	18.3	1
06969	Tin	7440-31-5	396		11.0	0.241	1
06970	Titanium	7440-32-6	1,440		1.10	0.187	1
06971	Vanadium	7440-62-2	94.7		1.10	0.143	1
06972	Zinc	7440-66-6	102		4.39	0.220	1
10146	Zirconium	7440-67-7	107		5.49	0.922	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.37		0.439	0.110	2
06142	Silver	7440-22-4	11.8		0.220	0.0285	2
06144	Strontium	7440-24-6	32.2		0.439	0.0746	2
06145	Thallium	7440-28-0	0.715		0.220	0.0329	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.216		0.0178	0.0107	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	8.9		0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-838-SA5B-SB-4.0-5.0MSD Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335021
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 14:10 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83840 SDG#: PH158-05MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	20.2	B	1.09	0.0994	1
11031	12378-PeCDD	40321-76-4	102		5.43	0.0476	1
11031	123478-HxCDD	39227-28-6	106	B	5.43	0.0432	1
11031	123678-HxCDD	57653-85-7	108	B	5.43	0.0452	1
11031	123789-HxCDD	19408-74-3	105	B	5.43	0.0429	1
11031	1234678-HpCDD	35822-46-9	106	B	5.43	0.0637	1
11031	OCDD	3268-87-9	210	B	10.9	0.0461	1
11031	2378-TCDF	51207-31-9	20.9		1.09	0.0770	1
11031	12378-PeCDF	57117-41-6	105	B	5.43	0.0411	1
11031	23478-PeCDF	57117-31-4	108	B	5.43	0.0377	1
11031	123478-HxCDF	70648-26-9	110	B	5.43	0.0537	1
11031	123678-HxCDF	57117-44-9	112	B	5.43	0.0526	1
11031	123789-HxCDF	72918-21-9	112	B	5.43	0.0520	1
11031	234678-HxCDF	60851-34-5	111	B	5.43	0.0508	1
11031	1234678-HpCDF	67562-39-4	109	B	5.43	0.0485	1
11031	1234789-HpCDF	55673-89-7	111	B	5.43	0.0660	1
11031	OCDF	39001-02-0	211	B	10.9	0.0634	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	52	25 - 164
13C12-12378-PeCDD	60	25 - 181
13C12-123478-HxCDD	72	32 - 141
13C12-123678-HxCDD	73	28 - 130
13C12-123789-HxCDD	71	28 - 130
13C12-1234678-HpCDD	72	23 - 140
13C12-OCDD	74	17 - 157
13C12-2378-TCDF	45	24 - 169
13C12-12378-PeCDF	55	24 - 185
13C12-23478-PeCDF	54	21 - 178
13C12-123478-HxCDF	63	26 - 152
13C12-123678-HxCDF	66	26 - 123
13C12-234678-HxCDF	64	28 - 136
13C12-123789-HxCDF	69	29 - 147
13C12-1234678-HpCDF	73	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	65	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

Sample Description: SL-838-SA5B-SB-4.0-5.0MSD Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335021
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 14:10 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83840 SDG#: PH158-05MSD

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14016SLC026	01/21/2014 09:34	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14016SLC026	01/17/2014 08:05	Olivia Arosemena	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14016A16A	01/17/2014 20:59	Laura M Krieger	23.23
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201401433612	01/14/2014 18:34	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201401433612	01/14/2014 18:34	Lois E Hiltz	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	140160015A	01/20/2014 23:19	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	140160015A	01/17/2014 08:05	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	140170002A	01/18/2014 06:44	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	140170002A	01/17/2014 16:40	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	14017001	01/20/2014 20:55	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	14017001	01/17/2014 12:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	140140637001	01/15/2014 07:17	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-838-SA5B-SB-4.0-5.0MSD Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335021
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 14:10 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83840 SDG#: PH158-05MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	140140637001B	01/23/2014 18:27	John P Hook	2
06142	Silver	SW-846 6020A	1	140140637001A	01/23/2014 18:27	John P Hook	2
06144	Strontium	SW-846 6020A	1	140140637001A	01/23/2014 21:04	John P Hook	2
06145	Thallium	SW-846 6020A	1	140140637001A	01/23/2014 18:27	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	140140638001	01/15/2014 11:37	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	140140637001	01/14/2014 23:13	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	140140638001	01/15/2014 01:30	Annamaria Kuhns	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14022162401A	01/22/2014 22:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-838-SA5B-SB-4.0-5.0DUP Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335022
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 14:10 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83840 SDG#: PH158-05DUP

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,700		43.9	7.91	1
06944	Antimony	7440-36-0	4.39	U	4.39	0.812	1
06935	Arsenic	7440-38-2	5.03		4.39	0.768	1
06946	Barium	7440-39-3	96.5		1.10	0.0362	1
06947	Beryllium	7440-41-7	0.553	J	1.10	0.0735	1
07914	Boron	7440-42-8	1.10	J	11.0	0.922	1
06949	Cadmium	7440-43-9	1.10	U	1.10	0.0834	1
01650	Calcium	7440-70-2	9,890		22.0	3.67	1
06951	Chromium	7440-47-3	17.7		3.29	0.176	1
06952	Cobalt	7440-48-4	4.44		1.10	0.109	1
06953	Copper	7440-50-8	9.16		2.20	0.318	1
01654	Iron	7439-89-6	18,800		43.9	3.97	1
06955	Lead	7439-92-1	8.47		3.29	0.549	1
01656	Lithium	7439-93-2	20.2		4.4	0.37	1
01657	Magnesium	7439-95-4	3,990		11.0	1.83	1
06958	Manganese	7439-96-5	262		1.10	0.0911	1
06960	Molybdenum	7439-98-7	0.414	J	2.20	0.187	1
06961	Nickel	7440-02-0	9.97		2.20	0.143	1
10145	Phosphorus	7723-14-0	234		11.0	3.17	1
01662	Potassium	7440-09-7	2,200		110	9.15	1
01667	Sodium	7440-23-5	145		110	18.3	1
06969	Tin	7440-31-5	2.56	J	11.0	0.241	1
06970	Titanium	7440-32-6	1,100		1.10	0.187	1
06971	Vanadium	7440-62-2	34.7		1.10	0.143	1
06972	Zinc	7440-66-6	45.3		4.39	0.220	1
10146	Zirconium	7440-67-7	3.17	J	5.49	0.922	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.159	J	0.439	0.110	2
06142	Silver	7440-22-4	0.0349	J	0.220	0.0285	2
06144	Strontium	7440-24-6	26.8		0.439	0.0746	2
06145	Thallium	7440-28-0	0.224		0.220	0.0329	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0175	U	0.0175	0.0105	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.28		0.0100	0.0100	1
	The pH was measured in water at 18.9 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	8.9		0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	9.1		0.10	0.10	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-838-SA5B-SB-4.0-5.0DUP Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335022
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 14:10 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83840 SDG#: PH158-05DUP

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	140140637001	01/15/2014 07:09	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	140140637001B	01/23/2014 18:22	John P Hook	2
06142	Silver	SW-846 6020A	1	140140637001A	01/23/2014 18:22	John P Hook	2
06144	Strontium	SW-846 6020A	1	140140637001A	01/23/2014 21:00	John P Hook	2
06145	Thallium	SW-846 6020A	1	140140637001A	01/23/2014 18:22	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	140140638001	01/15/2014 11:29	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	140140637001	01/14/2014 23:13	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	140140638001	01/15/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14016039401A	01/16/2014 09:30	Yolunder Y Bunch	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14022162401A	01/22/2014 22:29	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	14022162401A	01/22/2014 22:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-1138-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335023
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 13:40 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11384 SDG#: PH158-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.72	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.72	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.72	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.72	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.72	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.72	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.5	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.5	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.72	1
12969	Diethylphthalate	84-66-2	20	U	20	6.5	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.5	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20	U	20	6.5	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.72	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.72	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.72	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.72	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.72	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.72	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.72	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.5	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.72	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.72	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1	U	1	0.2	22.24
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.6	1
13099	PCB-1221	11104-28-2	18	U	18	5.5	1
13099	PCB-1232	11141-16-5	18	U	18	4.4	1
13099	PCB-1242	53469-21-9	18	U	18	4.4	1
13099	PCB-1248	12672-29-6	7.9	J	18	3.6	1
13099	PCB-1254	11097-69-1	18	U	18	4.8	1
13099	PCB-1260	11096-82-5	18	U	18	4.2	1
13099	PCB-1262	37324-23-5	18	U	18	3.6	1
13099	PCB-1268	11100-14-4	18	U	18	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	5.5	U	5.5	2.2	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-1138-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335023
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 13:40 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11384 SDG#: PH158-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.4	1
12952	EFH (C8-C11)	n.a.	5.5	U	5.5	2.2	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	17,500		44.1	7.95	1
06944	Antimony	7440-36-0	4.41	U	4.41	0.816	1
06935	Arsenic	7440-38-2	4.29	J	4.41	0.772	1
06946	Barium	7440-39-3	106		1.10	0.0364	1
06947	Beryllium	7440-41-7	0.664	J	1.10	0.0739	1
07914	Boron	7440-42-8	0.989	J	11.0	0.926	1
06949	Cadmium	7440-43-9	1.10	U	1.10	0.0838	1
01650	Calcium	7440-70-2	2,460		22.1	3.68	1
06951	Chromium	7440-47-3	18.5		3.31	0.176	1
06952	Cobalt	7440-48-4	3.93		1.10	0.109	1
06953	Copper	7440-50-8	8.18		2.21	0.320	1
01654	Iron	7439-89-6	19,800		44.1	3.99	1
06955	Lead	7439-92-1	7.75		3.31	0.551	1
01656	Lithium	7439-93-2	19.4		4.4	0.37	1
01657	Magnesium	7439-95-4	3,770		11.0	1.84	1
06958	Manganese	7439-96-5	277		1.10	0.0915	1
06960	Molybdenum	7439-98-7	0.217	J	2.21	0.187	1
06961	Nickel	7440-02-0	10.8		2.21	0.143	1
10145	Phosphorus	7723-14-0	149		11.0	3.19	1
01662	Potassium	7440-09-7	1,660		110	9.20	1
01667	Sodium	7440-23-5	96.2	J	110	18.4	1
06969	Tin	7440-31-5	3.09	J	11.0	0.243	1
06970	Titanium	7440-32-6	1,100		1.10	0.187	1
06971	Vanadium	7440-62-2	36.7		1.10	0.143	1
06972	Zinc	7440-66-6	43.8		4.41	0.221	1
10146	Zirconium	7440-67-7	1.39	J	5.51	0.926	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.148	J	0.441	0.110	2
06142	Silver	7440-22-4	0.0540	J	0.221	0.0287	2
06144	Strontium	7440-24-6	22.8		0.441	0.0750	2
06145	Thallium	7440-28-0	0.237		0.221	0.0331	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0183	U	0.0183	0.0110	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 18.6 C.	n.a.	7.24		0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	9.3		0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-1138-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335023
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 13:40 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11384 SDG#: PH158-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

Sample Description: SL-1138-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335023
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 13:40 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11384 SDG#: PH158-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.173	JB	1.08	0.0860	1
11031	12378-PeCDD	40321-76-4	0.314	JQ	5.40	0.0506	1
11031	123478-HxCDD	39227-28-6	0.142	JBQ	5.40	0.0358	1
11031	123678-HxCDD	57653-85-7	0.125	JBQ	5.40	0.0386	1
11031	123789-HxCDD	19408-74-3	0.207	JBQ	5.40	0.0376	1
11031	1234678-HpCDD	35822-46-9	0.649	JBQ	5.40	0.0442	1
11031	OCDD	3268-87-9	11.1	B	10.8	0.0365	1
11031	2378-TCDF	51207-31-9	1.08	U	1.08	0.0637	1
11031	12378-PeCDF	57117-41-6	0.272	JBQ	5.40	0.0340	1
11031	23478-PeCDF	57117-31-4	0.206	JB	5.40	0.0309	1
11031	123478-HxCDF	70648-26-9	0.169	JB	5.40	0.0288	1
11031	123678-HxCDF	57117-44-9	0.151	JBQ	5.40	0.0274	1
11031	123789-HxCDF	72918-21-9	0.174	JB	5.40	0.0313	1
11031	234678-HxCDF	60851-34-5	0.131	JBQ	5.40	0.0283	1
11031	1234678-HpCDF	67562-39-4	0.190	JBQ	5.40	0.0180	1
11031	1234789-HpCDF	55673-89-7	0.166	JBQ	5.40	0.0260	1
11031	OCDF	39001-02-0	0.518	JBQ	10.8	0.0537	1
D/F Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.273				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	43	25 - 164
13C12-12378-PeCDD	49	25 - 181
13C12-123478-HxCDD	66	32 - 141
13C12-123678-HxCDD	65	28 - 130
13C12-123789-HxCDD	63	28 - 130
13C12-1234678-HpCDD	65	23 - 140
13C12-OCDD	65	17 - 157
13C12-2378-TCDF	39	24 - 169
13C12-12378-PeCDF	44	24 - 185
13C12-23478-PeCDF	44	21 - 178
13C12-123478-HxCDF	56	26 - 152
13C12-123678-HxCDF	58	26 - 123
13C12-234678-HxCDF	57	28 - 136
13C12-123789-HxCDF	58	29 - 147
13C12-1234678-HpCDF	68	28 - 143
13C12-1234789-HpCDF	56	26 - 138
13C12-OCDF	54	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

Sample Description: SL-1138-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335023
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 13:40 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11384 SDG#: PH158-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-1138-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335023
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 13:40 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11384 SDG#: PH158-06

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14016SLC026	01/21/2014 11:40	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14016SLC026	01/17/2014 08:05	Olivia Arosemena	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14016A16A	01/17/2014 19:06	Laura M Krieger	22.24
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201401433612	01/14/2014 18:36	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201401433612	01/14/2014 18:36	Lois E Hiltz	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	140160015A	01/20/2014 23:38	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	140160015A	01/17/2014 08:05	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	140170002A	01/18/2014 07:05	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	140170002A	01/17/2014 16:40	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	14017001	01/20/2014 21:51	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	14017001	01/17/2014 12:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	140140637001	01/15/2014 07:48	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-1138-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7335023
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 13:40 by KL

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11384 SDG#: PH158-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	140140637001B	01/23/2014 18:46	John P Hook	2
06142	Silver	SW-846 6020A	1	140140637001A	01/23/2014 18:46	John P Hook	2
06144	Strontium	SW-846 6020A	1	140140637001A	01/23/2014 21:18	John P Hook	2
06145	Thallium	SW-846 6020A	1	140140637001A	01/23/2014 18:46	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	140140638001	01/15/2014 11:39	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	140140637001	01/14/2014 23:13	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	140140638001	01/15/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14016039401A	01/16/2014 09:30	Yolunder Y Bunch	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14022162401A	01/22/2014 22:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: TB-011314 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7335024
LL Group # 1445714
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/13/2014 08:00

Submitted: 01/14/2014 10:00
Reported: 01/24/2014 14:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB113 SDG#: PH158-07TB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14016A94A	01/17/2014 14:16	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14016A94A	01/17/2014 14:16	Laura M Krieger	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1445714
Reported: 01/24/14 at 02:21 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14016SLC026	Sample number(s): 7335015-7335021,7335023									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	104		77-116		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	94		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	100		80-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	95		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	95		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	103		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	87		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	99		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	92		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	118		77-123		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	106		78-125		
Chrysene	1.7	U	1.7	0.33	ug/kg	93		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	101		78-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	96		77-130		
Dimethylphthalate	18	U	18.	6.0	ug/kg	100		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	118		79-121		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	103		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	96		81-126		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	100		77-124		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	91		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	93		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	94		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	86		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	106		76-131		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	99		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	104		79-112		
Batch number: 14016A16A	Sample number(s): 7335016-7335017,7335019-7335021,7335023									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	84		67-119		
Batch number: 14016A94A	Sample number(s): 7335024									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	113	112	75-135	1	30
Batch number: 140160015A	Sample number(s): 7335015-7335021,7335023									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	84	85	36-106	2	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	96		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1445714
Reported: 01/24/14 at 02:21 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1260	17	U	17.	3.9	ug/kg	99		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 140170002A	Sample number(s): 7335015-7335021,7335023									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	94		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	96		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	96		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	71		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	80		60-115		
Batch number: 140140637001	Sample number(s): 7335015-7335023									
Aluminum	40.0	U	40.0	7.21	mg/kg	104		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	105		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	102		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	100		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	96		80-120		
Boron	10.0	U	10.0	0.840	mg/kg	97		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	101		80-120		
Calcium	4.67	J	20.0	3.34	mg/kg	100		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	98		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	103		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	101		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	102		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	106		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	100		80-120		
Magnesium	4.40	J	10.0	1.67	mg/kg	101		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	100		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	101		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	105		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	102		80-120		
Potassium	100 U		100.	8.34	mg/kg	98		80-120		
Sodium	100 U		100.	16.7	mg/kg	98		80-120		
Tin	1.59	J	10.0	0.220	mg/kg	100		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	102		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	101		80-120		
Zinc	0.462	J	4.00	0.200	mg/kg	101		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	101		80-120		
Batch number: 140140637001A	Sample number(s): 7335015-7335023									
Silver	0.200	U	0.200	0.0260	mg/kg	107		80-120		
Strontium	0.400	U	0.400	0.0680	mg/kg	104		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	108		80-120		
Batch number: 140140637001B	Sample number(s): 7335015-7335023									
Selenium	0.400	U	0.400	0.100	mg/kg	108		80-120		
Batch number: 140140638001	Sample number(s): 7335015-7335023									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	96		85-120		
Batch number: 14016039401A	Sample number(s): 7335015-7335019,7335022-7335023									
15a pH by 9045D						100		95-105		
Batch number: 14022162401A	Sample number(s): 7335015-7335023									

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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1445714
Reported: 01/24/14 at 02:21 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
14a Moisture Content by 160.3					99		80-120		
14a Moisture Content by 160.3					99		80-120		
14a Moisture Content by 160.3					99		80-120		

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14017001	Sample number(s): 7335015-7335021,7335023								
2378-TCDD	0.126 J	1.00	0.0693	ng/kg	95		67-158		
12378-PeCDD	5.00 U	5.00	0.0372	ng/kg	99		70-142		
123478-HxCDD	0.0344 J	5.00	0.0258	ng/kg	98		70-164		
123678-HxCDD	0.0345 J	5.00	0.0281	ng/kg	103		76-134		
123789-HxCDD	0.0671 J	5.00	0.0265	ng/kg	100		64-162		
1234678-HpCDD	0.104 J	5.00	0.0270	ng/kg	99		70-140		
OCDD	0.219 J	10.0	0.0227	ng/kg	99		78-144		
2378-TCDF	1.00 U	1.00	0.0552	ng/kg	100		75-158		
12378-PeCDF	0.0576 J	5.00	0.0233	ng/kg	101		80-134		
23478-PeCDF	0.0516 J	5.00	0.0215	ng/kg	100		68-160		
123478-HxCDF	0.0591 J	5.00	0.0208	ng/kg	102		72-134		
123678-HxCDF	0.0455 J	5.00	0.0198	ng/kg	104		84-130		
123789-HxCDF	0.0371 J	5.00	0.0218	ng/kg	104		78-130		
234678-HxCDF	0.0389 J	5.00	0.0200	ng/kg	106		70-156		
1234678-HpCDF	0.0794 J	5.00	0.0111	ng/kg	103		82-122		
1234789-HpCDF	0.0738 J	5.00	0.0141	ng/kg	105		78-138		
OCDF	0.191 J	10.0	0.0343	ng/kg	100		63-170		
TEQ WHO 2005 - EDLx0.0	0.00639			ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14016SLC026	Sample number(s): 7335015-7335021,7335023 UNSPK: 7335019								
Acenaphthene	105	99	48-127	7	30				
Acenaphthylene	96	91	49-121	6	30				
Anthracene	92	96	52-126	5	30				
Benzo(a)anthracene	84	85	44-143	0	30				
Benzo(a)pyrene	79	81	44-140	2	30				
Benzo(b)fluoranthene	76	80	26-142	4	30				
Benzo(e)pyrene	82	84	70-130	2	30				
Benzo(g,h,i)perylene	86	90	33-141	4	30				
Benzo(k)fluoranthene	85	85	54-142	0	30				
Butylbenzylphthalate	130	129	49-151	0	30				
Di-n-butylphthalate	120	127	52-147	5	30				
Chrysene	77	77	29-148	0	30				
Dibenz(a,h)anthracene	96	98	20-137	3	30				

*- Outside of specification
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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1445714
Reported: 01/24/14 at 02:21 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Diethylphthalate	94	92	43-145	2	30				
Dimethylphthalate	100	97	58-129	2	30				
Bis(2-Ethylhexyl)phthalate	134	132	39-167	1	30				
Fluoranthene	84	92	40-148	8	30				
Fluorene	89	90	51-137	1	30				
Indeno(1,2,3-cd)pyrene	90	92	17-136	2	30				
1-Methylnaphthalene	92	89	50-131	3	30				
2-Methylnaphthalene	95	92	35-152	3	30				
Naphthalene	96	92	31-148	4	30				
N-Nitrosodimethylamine	91	85	48-113	6	30				
Di-n-octylphthalate	116	118	52-162	2	30				
Phenanthrene	96	95	29-142	1	30				
Pyrene	94	95	26-143	1	30				
Batch number: 14016A16A	Sample number(s): 7335016-7335017,7335019-7335021,7335023 UNSPK: 7335019								
11a TPH by EPA 8015B GRO	85	81	69-123	4	30				
Batch number: 140160015A	Sample number(s): 7335015-7335021,7335023 UNSPK: 7335019								
PCB-1016	88	94	41-135	6	50				
PCB-1260	92	97	40-134	6	50				
Batch number: 140170002A	Sample number(s): 7335015-7335021,7335023 UNSPK: 7335019								
EFH (C12-C14)	99	89	49-123	10	20				
EFH (C15-C20)	101	91	49-123	11	20				
EFH (C21-C30)	101	90	49-123	12	20				
EFH (C30-C40)	82	72	49-123	12	20				
EFH (C8-C11)	84	75	49-123	11	20				
Batch number: 140140637001	Sample number(s): 7335015-7335023 UNSPK: 7335019 BKG: 7335019								
Aluminum	1606 (2)	1545 (2)	75-125	1	20	14,900	14,300	4	20
Antimony	70*	72*	75-125	3	20	4.00 U	4.00 U	0 (1)	20
Arsenic	98	97	75-125	1	20	4.60	4.58	0 (1)	20
Barium	95	94	75-125	1	20	98.8	88.0	12	20
Beryllium	98	98	75-125	0	20	0.556 J	0.504 J	10 (1)	20
Boron	99	98	75-125	1	20	1.07 J	1.00 J	6 (1)	20
Cadmium	91	91	75-125	1	20	1.00 U	1.00 U	0 (1)	20
Calcium	223 (2)	117 (2)	75-125	9	20	3,940	9,010	78*	20
Chromium	103	103	75-125	0	20	17.6	16.2	8	20
Cobalt	97	96	75-125	0	20	4.10	4.04	1 (1)	20
Copper	104	104	75-125	0	20	8.48	8.35	2 (1)	20
Iron	51 (2)	-112 (2)	75-125	1	20	18,500	17,200	7	20
Lead	103	102	75-125	1	20	7.12	7.71	8 (1)	20
Lithium	101	100	75-125	1	20	19.5	18.4	6 (1)	20
Magnesium	180 (2)	142 (2)	75-125	2	20	3,700	3,640	2	20
Manganese	135 (2)	125 (2)	75-125	2	20	247	239	3	20
Molybdenum	95	95	75-125	0	20	0.601 J	0.377 J	46* (1)	20
Nickel	98	97	75-125	1	20	9.87	9.08	8 (1)	20
Phosphorus	128*	102	75-125	8	20	207	213	3	20
Potassium	121	118	75-125	1	20	2,120	2,000	6	20
Sodium	97	97	75-125	0	20	135	132	3 (1)	20

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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1445714
Reported: 01/24/14 at 02:21 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc		DUP Conc		DUP RPD	Dup RPD Max
Tin	90	89	75-125	0	20	2.71	J	2.33	J	15 (1)	20
Titanium	266 (2)	264 (2)	75-125	0	20	1,050		1,010		4	20
Vanadium	107	104	75-125	2	20	34.2		31.6		8	20
Zinc	101	99	75-125	1	20	42.8		41.2		4	20
Zirconium	97	96	75-125	1	20	1.72	J	2.89	J	51* (1)	20
Batch number: 140140637001A	Sample number(s): 7335015-7335023 UNSPK: 7335019 BKG: 7335019										
Silver	108	107	75-125	1	20	0.0378	J	0.0318	J	17 (1)	20
Strontium	95	103	75-125	2	20	21.1		24.4		15	20
Thallium	100	107	75-125	4	20	0.223		0.204		9 (1)	20
Batch number: 140140637001B	Sample number(s): 7335015-7335023 UNSPK: 7335019 BKG: 7335019										
Selenium	105	102	75-125	3	20	0.129	J	0.145	J	12 (1)	20
Batch number: 140140638001	Sample number(s): 7335015-7335023 UNSPK: 7335019 BKG: 7335019										
3a Mercury 7471A	111	122	65-135	8	20	0.0165	U	0.0159	U	0 (1)	20
Batch number: 14016039401A	Sample number(s): 7335015-7335019,7335022-7335023 BKG: 7335019										
15a pH by 9045D						7.32		7.28		1	3
Batch number: 14022162401A	Sample number(s): 7335015-7335023 BKG: 7335019										
14a Moisture Content by 160.3						8.9		9.1		2	20
14a Moisture Content by 160.3						8.9		9.1		2	20
14a Moisture Content by 160.3						8.9		9.1		2	20
Batch number: 14017001	Sample number(s): 7335015-7335021,7335023 UNSPK: 7335019										
2378-TCDD	94	93	40-135	1	20						
12378-PeCDD	97	93	40-135	3	20						
123478-HxCDD	100	97	40-135	2	20						
123678-HxCDD	99	99	40-135	1	20						
123789-HxCDD	96	97	40-135	2	20						
1234678-HpCDD	96	97	40-135	2	20						
OCDD	93	92	40-135	0	20						
2378-TCDF	97	96	40-135	0	20						
12378-PeCDF	99	96	40-135	2	20						
23478-PeCDF	98	99	40-135	2	20						
123478-HxCDF	100	101	40-135	2	20						
123678-HxCDF	103	103	40-135	0	20						
123789-HxCDF	102	103	40-135	2	20						
234678-HxCDF	103	102	40-135	0	20						
1234678-HpCDF	101	100	40-135	1	20						
1234789-HpCDF	101	102	40-135	2	20						
OCDF	98	97	40-135	0	20						

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1445714
Reported: 01/24/14 at 02:21 PM

Surrogate Quality Control

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14016SLC026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7335015	76	75	86
7335016	80	79	91
7335017	68	66	78
7335018	76	77	85
7335019	79	79	87
7335020	76	76	90
7335021	83	78	87
7335023	81	79	90
Blank	84	80	86
LCS	84	81	89
MS	76	76	90
MSD	83	78	87
Limits:	54-129	59-125	61-125

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 14016A16A

	Trifluorotoluene-F
7335016	86
7335017	83
7335019	85
7335020	86
7335021	79
7335023	84
Blank	90
LCS	97
MS	86
MSD	79
Limits:	50-142

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14016A94A

	Trifluorotoluene-F
7335024	85
Blank	86
LCS	90
LCSD	91
Limits:	63-135

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 140160015A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7335015	112	102
7335016	115	102
7335017	101	91
7335018	104	94

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1445714
Reported: 01/24/14 at 02:21 PM

Surrogate Quality Control

7335019	109	102
7335020	101	101
7335021	105	105
7335023	107	100
Blank	114	111
LCS	108	105
LCSD	119	115
MS	101	101
MSD	105	105
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 140170002A

	Chlorobenzene	Orthoterphenyl
7335015	91	90
7335016	92	85
7335017	96	80
7335018	89	86
7335019	92	90
7335020	100	98
7335021	91	89
7335023	88	84
Blank	91	89
LCS	95	94
MS	100	98
MSD	91	89
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 14017001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7335015	66	66	76	78	77	81
7335016	51	57	69	72	71	72
7335017	52	58	69	71	71	74
7335018	39	44	55	58	58	59
7335019	54	57	68	72	69	69
7335020	46	51	62	64	63	66
7335021	52	54	63	66	64	69
7335023	43	44	56	58	57	58
Blank	62	70	82	84	84	87
MS	46	51	62	64	63	66
MSD	52	54	63	66	64	69
OPR	57	64	74	77	76	80
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7335015	82	74	73	68	82	81
7335016	79	68	67	61	76	76
7335017	78	70	68	62	77	78
7335018	69	58	58	47	63	62

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1445714
Reported: 01/24/14 at 02:21 PM

Surrogate Quality Control

7335019	79	65	63	61	75	77
7335020	69	61	61	54	70	70
7335021	73	64	65	60	72	73
7335023	68	56	54	49	66	65
Blank	94	85	85	76	91	89
MS	69	61	61	54	70	70
MSD	73	64	65	60	72	73
OPR	85	76	77	67	81	81
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7335015	81	80	79	62	66
7335016	76	76	75	48	55
7335017	75	76	75	49	56
7335018	63	66	67	35	43
7335019	75	76	75	49	57
7335020	70	69	70	42	49
7335021	71	72	74	45	55
7335023	63	65	65	39	44
Blank	89	92	94	57	68
MS	70	69	70	42	49
MSD	71	72	74	45	55
OPR	80	83	84	52	62
Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 1/13/2014 A-13013
CarrierName: FedEx
AirbillNo: 797623860084 G-1445714
S-733501S-24

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140113-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc.Nitrate..Nitrite..TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
SL-840-SA5B-SB-0.0-0.5	1/13/14 10:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X														
SL-840-SA5B-SB-0.0-0.5	1/13/14 10:00	SO	None	1 - 4 oz glass	10 day													X																					
SL-840-SA5B-SB-4.0-5.0	1/13/14 10:40	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X								X														
SL-840-SA5B-SB-4.0-5.0	1/13/14 10:40	SO	None	2 - Encore	10 day																			X															
SL-840-SA5B-SB-7.0-8.0	1/13/14 10:45	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X								X														
SL-840-SA5B-SB-7.0-8.0	1/13/14 10:45	SO	None	2 - Encore	10 day																			X															
SL-838-SA5B-SB-0.0-0.5	1/13/14 13:30	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X														
SL-838-SA5B-SB-0.0-0.5	1/13/14 13:30	SO	None	1 - 4 oz glass	10 day													X																					
SL-838-SA5B-SB-4.0-5.0MS	1/13/14 14:10	SO	None	6 - 16 oz glass	10 day	X	X					X		X	X			X								X														MS/MSD
SL-838-SA5B-SB-4.0-5.0MS	1/13/14 14:10	SO	None	6 - Encore	10 day																			X															MS/MSD
SL-1138-SA5B-SB-4.0-5.0	1/13/14 13:40	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X								X														
SL-1138-SA5B-SB-4.0-5.0	1/13/14 13:40	SO	None	2 - Encore	10 day																			X															

Special Instructions:

Sampler: Russ Lawson

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Jeff Myers	01/13/2014	1600									
									Cashier	1/14/14	1008

Amended COC

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 1/13/2014 A-13013
CarrierName: FedEx
AirbillNo: 797623860084 G-1445714
S-7335015-24

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140113-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate Confirm 6850/6860	Perchlorate 314.0/331	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	1,4 Dioxane 8260 SIM	VOCs 8260	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
SL-840-SA5B-SB-0.0-0.5	1/13/14 10:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X														
SL-840-SA5B-SB-0.0-0.5	1/13/14 10:00	SO	None	1 - 4 oz glass	10 day													X																						
SL-840-SA5B-SB-4.0-5.0	1/13/14 10:40	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X								X														
SL-840-SA5B-SB-4.0-5.0	1/13/14 10:40	SO	None	2 - Encore	10 day																			X																
SL-840-SA5B-SB-7.0-8.0	1/13/14 10:45	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X								X														
SL-840-SA5B-SB-7.0-8.0	1/13/14 10:45	SO	None	2 - Encore	10 day																			X																
SL-838-SA5B-SB-0.0-0.5	1/13/14 13:30	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X														
SL-838-SA5B-SB-0.0-0.5	1/13/14 13:30	SO	None	1 - 4 oz glass	10 day													X																						
SL-838-SA5B-SB-4.0-5.0MS	1/13/14 14:10	SO	None	6 - 16 oz glass	10 day	X	X					X		X	X			X								X														MS/MSD
SL-838-SA5B-SB-4.0-5.0MS	1/13/14 14:10	SO	None	6 - Encore	10 day																			X																MS/MSD
SL-1138-SA5B-SB-4.0-5.0	1/13/14 13:40	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X								X														
SL-1138-SA5B-SB-4.0-5.0	1/13/14 13:40	SO	None	2 - Encore	10 day																			X																
TB-011314	1/13/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																			X																

Special Instructions:

Sampler: Kim Lawson

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Shey Myers	01/13/2014	1600									

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Sample Administration Receipt Documentation Log

Doc Log ID: 2166

Client: CDM SMITH

G-1445714

SSFL PHASE 3

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	01/14/2014 10:00
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Trip Blank Present:	Yes
Custody Seal Present:	Yes	Trip Blank Indicated on COC:	No
Custody Seal Intact:	Yes	Trip Blank Type:	HCL
Samples Chilled:	Yes	Trip Blank Qty:	3
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes	Air Quality Flow Controllers Present:	N/A
Missing Samples:	No	Flow Controller Quantity:	0
Extra Samples:	Yes	Air Quality Returns:	N/A
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace at least 6mm:	N/A		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Corey Eshleman (3647) at 10:24 on 01/14/2014

Samples Chilled Details: SSFL PHASE 3

Cooler #	Thermometer ID	Raw Temp (°C)	Corrected Temp (°C)	Thermometer Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT121	0.8	0.8	DT	Wet	Y	Bagged	N

Extra Sample Details: SSFL PHASE 3

Sample ID on Label	Number of Extra Containers	Date on Label	Comments
TB-011314	3	1/13/2014 08:00	

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

eurofins | Lancaster Laboratories Environmental

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

January 31, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 01/15/2014
Group Number: 1446014
SDG: PH159
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SL-839-SA5B-SB-0.0-0.5 Soil	7336139
SL-839-SA5B-SB-4.0-5.0 Soil	7336140
SL-839-SA5B-SB-4.0-5.0 Soil	7336141
SL-839-SA5B-SB-4.0-5.0 Soil	7336142
SL-839-SA5B-SB-4.0-5.0 Soil	7336143
SL-1139-SA5B-SB-4.0-5.0 Soil	7336144
SL-839-SA5B-SB-9.0-10.0 Soil	7336145
SL-839-SA5B-SB-15.5-16.5 Soil	7336146
SL-843-SA5B-SB-0.0-0.5 Soil	7336147
SL-843-SA5B-SB-4.0-5.0 Soil	7336148
SL-843-SA5B-SB-7.0-8.0 Soil	7336149
TB-011414 Water	7336150
EB-011414 Water	7336151

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: SL-839-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336139
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:00 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83900 SDG#: PH159-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.71	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	2.8		1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	18		1.8	0.71	1
12969	Benzo(a)pyrene	50-32-8	11		1.8	0.71	1
12969	Benzo(b)fluoranthene	205-99-2	15		1.8	0.71	1
12969	Benzo(e)pyrene	192-97-2	7.2	J	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	2.4		1.8	0.71	1
12969	Benzo(k)fluoranthene	207-08-9	8.0		1.8	0.71	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.4	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.4	1
12969	Chrysene	218-01-9	19		1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	0.99	J	1.8	0.71	1
12969	Diethylphthalate	84-66-2	19	U	19	6.4	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.4	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.4	1
12969	Fluoranthene	206-44-0	38		1.8	0.71	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.71	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	2.6		1.8	0.71	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.71	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.71	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.71	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.71	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.4	1
12969	Phenanthrene	85-01-8	6.1		1.8	0.71	1
12969	Pyrene	129-00-0	54		1.8	0.71	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.4	1
13099	PCB-1242	53469-21-9	18	U	18	4.4	1
13099	PCB-1248	12672-29-6	61		18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.7	1
13099	PCB-1260	11096-82-5	18	U	18	4.2	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C21-C30)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.3	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336139
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:00 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83900 SDG#: PH159-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,600		42.2	7.61	1
06944	Antimony	7440-36-0	4.22	U	4.22	0.781	1
06935	Arsenic	7440-38-2	4.97		4.22	0.739	1
06946	Barium	7440-39-3	103		1.06	0.0348	1
06947	Beryllium	7440-41-7	0.725	J	1.06	0.0707	1
07914	Boron	7440-42-8	1.26	J	10.6	0.887	1
06949	Cadmium	7440-43-9	1.06	U	1.06	0.0802	1
01650	Calcium	7440-70-2	3,870		21.1	3.53	1
06951	Chromium	7440-47-3	21.3		3.17	0.169	1
06952	Cobalt	7440-48-4	5.67		1.06	0.104	1
06953	Copper	7440-50-8	17.9		2.11	0.306	1
01654	Iron	7439-89-6	23,800		42.2	3.82	1
06955	Lead	7439-92-1	6.80		3.17	0.528	1
01656	Lithium	7439-93-2	27.5		4.2	0.36	1
01657	Magnesium	7439-95-4	5,040		10.6	1.76	1
06958	Manganese	7439-96-5	361		1.06	0.0876	1
06960	Molybdenum	7439-98-7	0.264	J	2.11	0.179	1
06961	Nickel	7440-02-0	13.5		2.11	0.137	1
10145	Phosphorus	7723-14-0	360		10.6	3.05	1
01662	Potassium	7440-09-7	2,890		106	8.80	1
01667	Sodium	7440-23-5	196		106	17.6	1
06969	Tin	7440-31-5	3.22	J	10.6	0.232	1
06970	Titanium	7440-32-6	1,180		1.06	0.179	1
06971	Vanadium	7440-62-2	39.7		1.06	0.137	1
06972	Zinc	7440-66-6	58.4		4.22	0.211	1
10146	Zirconium	7440-67-7	3.38	J	5.28	0.887	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.145	J	0.422	0.106	2
06142	Silver	7440-22-4	0.0715	J	0.211	0.0274	2
06144	Strontium	7440-24-6	28.5		0.422	0.0718	2
06145	Thallium	7440-28-0	0.285		0.211	0.0317	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0231		0.0174	0.0104	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.08		0.0100	0.0100	1
	The pH was measured in water at 18.8 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	6.2		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336139
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:00 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83900 SDG#: PH159-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.04	U	1.04	0.0670	1
11031	12378-PeCDD	40321-76-4	0.0469	JQ	5.18	0.0386	1
11031	123478-HxCDD	39227-28-6	5.18	U	5.18	0.0292	1
11031	123678-HxCDD	57653-85-7	0.175	JBQ	5.18	0.0304	1
11031	123789-HxCDD	19408-74-3	0.261	JB	5.18	0.0288	1
11031	1234678-HpCDD	35822-46-9	0.448	JBQ	5.18	0.0290	1
11031	OCDD	3268-87-9	4.52	JB	10.4	0.0563	1
11031	2378-TCDF	51207-31-9	1.04	U	1.04	0.0591	1
11031	12378-PeCDF	57117-41-6	0.0263	JBQ	5.18	0.0222	1
11031	23478-PeCDF	57117-31-4	0.103	JBQ	5.18	0.0206	1
11031	123478-HxCDF	70648-26-9	0.0681	JBQ	5.18	0.0233	1
11031	123678-HxCDF	57117-44-9	0.0935	JBQ	5.18	0.0234	1
11031	123789-HxCDF	72918-21-9	0.219	JB	5.18	0.0253	1
11031	234678-HxCDF	60851-34-5	0.0752	JB	5.18	0.0242	1
11031	1234678-HpCDF	67562-39-4	0.143	JBQ	5.18	0.0111	1
11031	1234789-HpCDF	55673-89-7	0.0755	JBQ	5.18	0.0139	1
11031	OCDF	39001-02-0	0.408	JB	10.4	0.0464	1
D/F Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0570				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	58	25 - 164
13C12-12378-PeCDD	61	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	73	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	74	23 - 140
13C12-OCDD	64	17 - 157
13C12-2378-TCDF	55	24 - 169
13C12-12378-PeCDF	58	24 - 185
13C12-23478-PeCDF	59	21 - 178
13C12-123478-HxCDF	68	26 - 152
13C12-123678-HxCDF	69	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	74	28 - 143
13C12-1234789-HpCDF	69	26 - 138
13C12-OCDF	58	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336139
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:00 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83900 SDG#: PH159-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336139
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:00 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83900 SDG#: PH159-01

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14022SLC026	01/24/2014 09:19	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14022SLC026	01/23/2014 02:00	David V Hershey Jr	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	140210005A	01/23/2014 13:52	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	140210005A	01/22/2014 09:00	David S Schrum	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	140220009A	01/23/2014 17:03	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	140220009A	01/23/2014 02:00	David V Hershey Jr	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	14021002	01/23/2014 19:57	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	14021002	01/21/2014 09:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
06944	Antimony	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
06935	Arsenic	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
06946	Barium	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
06947	Beryllium	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
07914	Boron	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
06949	Cadmium	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
01650	Calcium	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
06951	Chromium	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
06952	Cobalt	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
06953	Copper	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
01654	Iron	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
06955	Lead	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
01656	Lithium	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
01657	Magnesium	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
06958	Manganese	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
06960	Molybdenum	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
06961	Nickel	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
10145	Phosphorus	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
01662	Potassium	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
01667	Sodium	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
06969	Tin	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
06970	Titanium	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
06971	Vanadium	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
06972	Zinc	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
10146	Zirconium	SW-846 6010C	1	140200637001	01/21/2014 14:02	Maria A Orrs	1
06141	Selenium	SW-846 6020A	1	140200637001B	01/24/2014 06:34	Deborah A Krady	2
06142	Silver	SW-846 6020A	1	140200637001A	01/24/2014 06:34	Deborah A Krady	2
06144	Strontium	SW-846 6020A	1	140200637001A	01/24/2014 06:34	Deborah A Krady	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336139
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:00 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83900 SDG#: PH159-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06145	Thallium	SW-846 6020A	1	140200637001A	01/24/2014 11:59	Deborah A Krady	2
00159	3a Mercury 7471A	SW-846 7471B	1	140160638002	01/21/2014 11:00	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	140200637001	01/20/2014 22:10	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	140160638002	01/17/2014 12:25	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14016039401A	01/16/2014 09:30	Yolunder Y Bunch	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14022162401B	01/22/2014 22:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336140
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83940 SDG#: PH159-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.73	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.37	1
12969	Anthracene	120-12-7	0.75	J	1.8	0.37	1
12969	Benzo(a)anthracene	56-55-3	4.1		1.8	0.73	1
12969	Benzo(a)pyrene	50-32-8	2.4		1.8	0.73	1
12969	Benzo(b)fluoranthene	205-99-2	6.0		1.8	0.73	1
12969	Benzo(e)pyrene	192-97-2	19	U	19	3.7	1
12969	Benzo(g,h,i)perylene	191-24-2	0.96	J	1.8	0.73	1
12969	Benzo(k)fluoranthene	207-08-9	2.5		1.8	0.73	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.6	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.6	1
12969	Chrysene	218-01-9	14		1.8	0.37	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.73	1
12969	Diethylphthalate	84-66-2	20	U	20	6.6	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.6	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20	U	20	6.6	1
12969	Fluoranthene	206-44-0	5.8		1.8	0.73	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.73	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.1	J	1.8	0.73	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.73	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.73	1
12969	Naphthalene	91-20-3	0.76	J	1.8	0.73	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.73	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.6	1
12969	Phenanthrene	85-01-8	2.1		1.8	0.73	1
12969	Pyrene	129-00-0	7.0		1.8	0.73	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	25.2
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	19	U	19	3.6	1
13099	PCB-1221	11104-28-2	19	U	19	5.6	1
13099	PCB-1232	11141-16-5	19	U	19	4.5	1
13099	PCB-1242	53469-21-9	19	U	19	4.5	1
13099	PCB-1248	12672-29-6	7.8	J	19	3.6	1
13099	PCB-1254	11097-69-1	19	U	19	4.8	1
13099	PCB-1260	11096-82-5	19	U	19	4.3	1
13099	PCB-1262	37324-23-5	19	U	19	3.6	1
13099	PCB-1268	11100-14-4	19	U	19	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	5.5	U	5.5	2.2	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336140
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83940 SDG#: PH159-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.4	1
12952	EFH (C8-C11)	n.a.	5.5	U	5.5	2.2	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,800		43.6	7.86	1
06944	Antimony	7440-36-0	4.36	U	4.36	0.807	1
06935	Arsenic	7440-38-2	4.40		4.36	0.763	1
06946	Barium	7440-39-3	99.0		1.09	0.0360	1
06947	Beryllium	7440-41-7	0.712	J	1.09	0.0731	1
07914	Boron	7440-42-8	1.66	J	10.9	0.916	1
06949	Cadmium	7440-43-9	1.09	U	1.09	0.0829	1
01650	Calcium	7440-70-2	3,510		21.8	3.64	1
06951	Chromium	7440-47-3	24.4		3.27	0.174	1
06952	Cobalt	7440-48-4	5.36		1.09	0.108	1
06953	Copper	7440-50-8	17.3		2.18	0.316	1
01654	Iron	7439-89-6	22,200		43.6	3.95	1
06955	Lead	7439-92-1	6.13		3.27	0.545	1
01656	Lithium	7439-93-2	26.6		4.4	0.37	1
01657	Magnesium	7439-95-4	4,750		10.9	1.82	1
06958	Manganese	7439-96-5	319		1.09	0.0905	1
06960	Molybdenum	7439-98-7	2.13	J	2.18	0.185	1
06961	Nickel	7440-02-0	12.5		2.18	0.142	1
10145	Phosphorus	7723-14-0	345		10.9	3.15	1
01662	Potassium	7440-09-7	2,770		109	9.09	1
01667	Sodium	7440-23-5	175		109	18.2	1
06969	Tin	7440-31-5	3.30	J	10.9	0.240	1
06970	Titanium	7440-32-6	1,220		1.09	0.185	1
06971	Vanadium	7440-62-2	38.9		1.09	0.142	1
06972	Zinc	7440-66-6	55.6		4.36	0.218	1
10146	Zirconium	7440-67-7	3.37	J	5.45	0.916	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.436	U	0.436	0.109	2
06142	Silver	7440-22-4	0.0355	J	0.218	0.0284	2
06144	Strontium	7440-24-6	24.3		0.436	0.0741	2
06145	Thallium	7440-28-0	0.260		0.218	0.0327	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0182	U	0.0182	0.0109	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 19.3 C.	n.a.	7.42		0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	9.2		0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336140
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83940 SDG#: PH159-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336140
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83940 SDG#: PH159-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.08	U	1.08	0.0837	1
11031	12378-PeCDD	40321-76-4	0.0930	JQ	5.42	0.0567	1
11031	123478-HxCDD	39227-28-6	5.42	U	5.42	0.0372	1
11031	123678-HxCDD	57653-85-7	0.175	JBQ	5.42	0.0399	1
11031	123789-HxCDD	19408-74-3	0.299	JB	5.42	0.0366	1
11031	1234678-HpCDD	35822-46-9	0.258	JBQ	5.42	0.0321	1
11031	OCDD	3268-87-9	2.31	JBQ	10.8	0.0968	1
11031	2378-TCDF	51207-31-9	1.08	U	1.08	0.0710	1
11031	12378-PeCDF	57117-41-6	0.110	JBQ	5.42	0.0383	1
11031	23478-PeCDF	57117-31-4	0.0880	JBQ	5.42	0.0357	1
11031	123478-HxCDF	70648-26-9	0.0493	JBQ	5.42	0.0271	1
11031	123678-HxCDF	57117-44-9	0.0734	JBQ	5.42	0.0264	1
11031	123789-HxCDF	72918-21-9	0.254	JB	5.42	0.0308	1
11031	234678-HxCDF	60851-34-5	0.0581	JB	5.42	0.0263	1
11031	1234678-HpCDF	67562-39-4	0.105	JBQ	5.42	0.0144	1
11031	1234789-HpCDF	55673-89-7	0.0310	JBQ	5.42	0.0178	1
11031	OCDF	39001-02-0	0.257	JBQ	10.8	0.0631	1
D/F Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0611				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	57	25 - 164
13C12-12378-PeCDD	59	25 - 181
13C12-123478-HxCDD	71	32 - 141
13C12-123678-HxCDD	68	28 - 130
13C12-123789-HxCDD	69	28 - 130
13C12-1234678-HpCDD	68	23 - 140
13C12-OCDD	47	17 - 157
13C12-2378-TCDF	55	24 - 169
13C12-12378-PeCDF	57	24 - 185
13C12-23478-PeCDF	58	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	66	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	66	29 - 147
13C12-1234678-HpCDF	69	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	43	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336140
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83940 SDG#: PH159-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336140
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83940 SDG#: PH159-02BKG

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14022SLC026	01/24/2014 07:45	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14022SLC026	01/23/2014 02:00	David V Hershey Jr	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14016B16A	01/18/2014 03:55	Laura M Krieger	25.2
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201401533622	01/15/2014 19:23	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201401533622	01/15/2014 19:24	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	140210005A	01/23/2014 14:11	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	140210005A	01/22/2014 09:00	David S Schrum	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	140220009A	01/23/2014 16:20	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	140220009A	01/23/2014 02:00	David V Hershey Jr	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	14021002	01/23/2014 20:53	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	14021002	01/21/2014 09:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1
06944	Antimony	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1
06935	Arsenic	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1
06946	Barium	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1
06947	Beryllium	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1
07914	Boron	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1
06949	Cadmium	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1
01650	Calcium	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1
06951	Chromium	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1
06952	Cobalt	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1
06953	Copper	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1
01654	Iron	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1
06955	Lead	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1
01656	Lithium	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1
01657	Magnesium	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1
06958	Manganese	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1
06960	Molybdenum	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1
06961	Nickel	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1
10145	Phosphorus	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1
01662	Potassium	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1
01667	Sodium	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1
06969	Tin	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1
06970	Titanium	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1
06971	Vanadium	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1
06972	Zinc	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336140
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83940 SDG#: PH159-02BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	140200637001	01/21/2014 13:38	Maria A Orrs	1
06141	Selenium	SW-846 6020A	1	140200637001B	01/24/2014 06:20	Deborah A Krady	2
06142	Silver	SW-846 6020A	1	140200637001A	01/24/2014 06:20	Deborah A Krady	2
06144	Strontium	SW-846 6020A	1	140200637001A	01/24/2014 06:20	Deborah A Krady	2
06145	Thallium	SW-846 6020A	1	140200637001A	01/24/2014 11:49	Deborah A Krady	2
00159	3a Mercury 7471A	SW-846 7471B	1	140150638001	01/17/2014 10:54	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	140200637001	01/20/2014 22:10	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	140150638001	01/16/2014 12:25	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14016039401B	01/16/2014 09:30	Yolunder Y Bunch	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14022162401B	01/22/2014 22:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336141
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83940 SDG#: PH159-02MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	37		1.8	0.73	1
12969	Acenaphthylene	208-96-8	35		1.8	0.37	1
12969	Anthracene	120-12-7	39		1.8	0.37	1
12969	Benzo(a)anthracene	56-55-3	39		1.8	0.73	1
12969	Benzo(a)pyrene	50-32-8	38		1.8	0.73	1
12969	Benzo(b)fluoranthene	205-99-2	44		1.8	0.73	1
12969	Benzo(e)pyrene	192-97-2	35		19	3.7	1
12969	Benzo(g,h,i)perylene	191-24-2	18		1.8	0.73	1
12969	Benzo(k)fluoranthene	207-08-9	38		1.8	0.73	1
12969	Butylbenzylphthalate	85-68-7	50		20	6.6	1
12969	Di-n-butylphthalate	84-74-2	41		20	6.6	1
12969	Chrysene	218-01-9	37		1.8	0.37	1
12969	Dibenz(a,h)anthracene	53-70-3	24		1.8	0.73	1
12969	Diethylphthalate	84-66-2	38		20	6.6	1
12969	Dimethylphthalate	131-11-3	37		20	6.6	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	54		20	6.6	1
12969	Fluoranthene	206-44-0	40		1.8	0.73	1
12969	Fluorene	86-73-7	33		1.8	0.73	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	22		1.8	0.73	1
12969	1-Methylnaphthalene	90-12-0	35		1.8	0.73	1
12969	2-Methylnaphthalene	91-57-6	36		1.8	0.73	1
12969	Naphthalene	91-20-3	37		1.8	0.73	1
12969	N-Nitrosodimethylamine	62-75-9	27		1.8	0.73	1
12969	Di-n-octylphthalate	117-84-0	63		20	6.6	1
12969	Phenanthrene	85-01-8	38		1.8	0.73	1
12969	Pyrene	129-00-0	56		1.8	0.73	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	9.0		1.1	0.2	24.75
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	160		19	3.6	1
13099	PCB-1221	11104-28-2	19	U	19	5.6	1
13099	PCB-1232	11141-16-5	19	U	19	4.5	1
13099	PCB-1242	53469-21-9	19	U	19	4.5	1
13099	PCB-1248	12672-29-6	120		19	3.6	1
13099	PCB-1254	11097-69-1	19	U	19	4.8	1
13099	PCB-1260	11096-82-5	160		19	4.3	1
13099	PCB-1262	37324-23-5	19	U	19	3.6	1
13099	PCB-1268	11100-14-4	19	U	19	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.5		5.5	2.2	1
12952	EFH (C15-C20)	n.a.	8.7		5.5	2.2	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336141
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83940 SDG#: PH159-02MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	15		5.5	2.2	1
12952	EFH (C30-C40)	n.a.	16		11	4.4	1
12952	EFH (C8-C11)	n.a.	4.5	J	5.5	2.2	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	19,800		43.6	7.86	1
06944	Antimony	7440-36-0	37.8		4.36	0.807	1
06935	Arsenic	7440-38-2	21.3		4.36	0.763	1
06946	Barium	7440-39-3	325		1.09	0.0360	1
06947	Beryllium	7440-41-7	6.22		1.09	0.0731	1
07914	Boron	7440-42-8	208		10.9	0.916	1
06949	Cadmium	7440-43-9	4.60		1.09	0.0829	1
01650	Calcium	7440-70-2	4,280		21.8	3.64	1
06951	Chromium	7440-47-3	46.4		3.27	0.174	1
06952	Cobalt	7440-48-4	57.1		1.09	0.108	1
06953	Copper	7440-50-8	46.1		2.18	0.316	1
01654	Iron	7439-89-6	23,500		43.6	3.95	1
06955	Lead	7439-92-1	22.1		3.27	0.545	1
01656	Lithium	7439-93-2	135		4.4	0.37	1
01657	Magnesium	7439-95-4	5,270		10.9	1.82	1
06958	Manganese	7439-96-5	435		1.09	0.0905	1
06960	Molybdenum	7439-98-7	204		2.18	0.185	1
06961	Nickel	7440-02-0	65.8		2.18	0.142	1
10145	Phosphorus	7723-14-0	438		10.9	3.15	1
01662	Potassium	7440-09-7	3,990		109	9.09	1
01667	Sodium	7440-23-5	1,230		109	18.2	1
06969	Tin	7440-31-5	385		10.9	0.240	1
06970	Titanium	7440-32-6	1,470		1.09	0.185	1
06971	Vanadium	7440-62-2	97.2		1.09	0.142	1
06972	Zinc	7440-66-6	107		4.36	0.218	1
10146	Zirconium	7440-67-7	108		5.45	0.916	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.42		0.436	0.109	2
06142	Silver	7440-22-4	11.9		0.218	0.0284	2
06144	Strontium	7440-24-6	35.8		0.436	0.0741	2
06145	Thallium	7440-28-0	0.740		0.218	0.0327	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.188		0.0174	0.0105	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	9.2		0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336141
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83940 SDG#: PH159-02MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	20.6		1.09	0.103	1
11031	12378-PeCDD	40321-76-4	105		5.46	0.0674	1
11031	123478-HxCDD	39227-28-6	106	B	5.46	0.0486	1
11031	123678-HxCDD	57653-85-7	107	B	5.46	0.0520	1
11031	123789-HxCDD	19408-74-3	106	B	5.46	0.0486	1
11031	1234678-HpCDD	35822-46-9	105	B	5.46	0.0549	1
11031	OCDD	3268-87-9	213	B	10.9	0.0555	1
11031	2378-TCDF	51207-31-9	20.9		1.09	0.0777	1
11031	12378-PeCDF	57117-41-6	106	B	5.46	0.0430	1
11031	23478-PeCDF	57117-31-4	106	B	5.46	0.0396	1
11031	123478-HxCDF	70648-26-9	111	B	5.46	0.0509	1
11031	123678-HxCDF	57117-44-9	111	B	5.46	0.0495	1
11031	123789-HxCDF	72918-21-9	109	B	5.46	0.0484	1
11031	234678-HxCDF	60851-34-5	109	B	5.46	0.0485	1
11031	1234678-HpCDF	67562-39-4	109	B	5.46	0.0448	1
11031	1234789-HpCDF	55673-89-7	108	B	5.46	0.0548	1
11031	OCDF	39001-02-0	211	B	10.9	0.0580	1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	54	25 - 164
13C12-12378-PeCDD	57	25 - 181
13C12-123478-HxCDD	69	32 - 141
13C12-123678-HxCDD	70	28 - 130
13C12-123789-HxCDD	69	28 - 130
13C12-1234678-HpCDD	64	23 - 140
13C12-OCDD	57	17 - 157
13C12-2378-TCDF	51	24 - 169
13C12-12378-PeCDF	55	24 - 185
13C12-23478-PeCDF	56	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	65	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	65	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	53	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336141
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83940 SDG#: PH159-02MS

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14022SLC026	01/24/2014 08:17	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14022SLC026	01/23/2014 02:00	David V Hershey Jr	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14016B16A	01/18/2014 04:33	Laura M Krieger	24.75
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201401533622	01/15/2014 19:24	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201401533622	01/15/2014 19:24	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	140210005A	01/23/2014 14:29	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	140210005A	01/22/2014 09:00	David S Schrum	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	140220009A	01/23/2014 17:45	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	140220009A	01/23/2014 02:00	David V Hershey Jr	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	14021002	01/23/2014 21:50	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	14021002	01/21/2014 09:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1
06944	Antimony	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1
06935	Arsenic	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1
06946	Barium	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1
06947	Beryllium	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1
07914	Boron	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1
06949	Cadmium	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1
01650	Calcium	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1
06951	Chromium	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1
06952	Cobalt	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1
06953	Copper	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1
01654	Iron	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1
06955	Lead	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1
01656	Lithium	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1
01657	Magnesium	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1
06958	Manganese	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1
06960	Molybdenum	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1
06961	Nickel	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1
10145	Phosphorus	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1
01662	Potassium	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1
01667	Sodium	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1
06969	Tin	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1
06970	Titanium	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1
06971	Vanadium	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1
06972	Zinc	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336141
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83940 SDG#: PH159-02MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	140200637001	01/21/2014 13:50	Maria A Orrs	1
06141	Selenium	SW-846 6020A	1	140200637001B	01/24/2014 06:27	Deborah A Krady	2
06142	Silver	SW-846 6020A	1	140200637001A	01/24/2014 06:27	Deborah A Krady	2
06144	Strontium	SW-846 6020A	1	140200637001A	01/24/2014 06:27	Deborah A Krady	2
06145	Thallium	SW-846 6020A	1	140200637001A	01/24/2014 11:54	Deborah A Krady	2
00159	3a Mercury 7471A	SW-846 7471B	1	140150638001	01/17/2014 11:00	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	140200637001	01/20/2014 22:10	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	140150638001	01/16/2014 12:25	Denise K Conners	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14022162401B	01/22/2014 22:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336142
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83940 SDG#: PH159-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	38		1.8	0.73	1
12969	Acenaphthylene	208-96-8	36		1.8	0.37	1
12969	Anthracene	120-12-7	41		1.8	0.37	1
12969	Benzo(a)anthracene	56-55-3	42		1.8	0.73	1
12969	Benzo(a)pyrene	50-32-8	40		1.8	0.73	1
12969	Benzo(b)fluoranthene	205-99-2	47		1.8	0.73	1
12969	Benzo(e)pyrene	192-97-2	38		19	3.7	1
12969	Benzo(g,h,i)perylene	191-24-2	20		1.8	0.73	1
12969	Benzo(k)fluoranthene	207-08-9	41		1.8	0.73	1
12969	Butylbenzylphthalate	85-68-7	55		20	6.6	1
12969	Di-n-butylphthalate	84-74-2	45		20	6.6	1
12969	Chrysene	218-01-9	40		1.8	0.37	1
12969	Dibenz(a,h)anthracene	53-70-3	25		1.8	0.73	1
12969	Diethylphthalate	84-66-2	40		20	6.6	1
12969	Dimethylphthalate	131-11-3	38		20	6.6	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	57		20	6.6	1
12969	Fluoranthene	206-44-0	44		1.8	0.73	1
12969	Fluorene	86-73-7	36		1.8	0.73	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	24		1.8	0.73	1
12969	1-Methylnaphthalene	90-12-0	37		1.8	0.73	1
12969	2-Methylnaphthalene	91-57-6	38		1.8	0.73	1
12969	Naphthalene	91-20-3	38		1.8	0.73	1
12969	N-Nitrosodimethylamine	62-75-9	31		1.8	0.73	1
12969	Di-n-octylphthalate	117-84-0	64		20	6.6	1
12969	Phenanthrene	85-01-8	41		1.8	0.73	1
12969	Pyrene	129-00-0	62		1.8	0.73	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	8.1		1.0	0.2	23.54
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	180		19	3.6	1
13099	PCB-1221	11104-28-2	19	U	19	5.6	1
13099	PCB-1232	11141-16-5	19	U	19	4.5	1
13099	PCB-1242	53469-21-9	19	U	19	4.5	1
13099	PCB-1248	12672-29-6	140		19	3.6	1
13099	PCB-1254	11097-69-1	19	U	19	4.8	1
13099	PCB-1260	11096-82-5	180		19	4.3	1
13099	PCB-1262	37324-23-5	19	U	19	3.6	1
13099	PCB-1268	11100-14-4	19	U	19	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	6.1		5.5	2.2	1
12952	EFH (C15-C20)	n.a.	9.6		5.5	2.2	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336142
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83940 SDG#: PH159-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	21	5.5	2.2	1
12952	EFH (C30-C40)	n.a.	32	11	4.4	1
12952	EFH (C8-C11)	n.a.	5.8	5.5	2.2	1
Metals	**SW-846 6010C**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	19,800	43.6	7.86	1
06944	Antimony	7440-36-0	37.1	4.36	0.807	1
06935	Arsenic	7440-38-2	21.5	4.36	0.763	1
06946	Barium	7440-39-3	314	1.09	0.0360	1
06947	Beryllium	7440-41-7	6.22	1.09	0.0731	1
07914	Boron	7440-42-8	208	10.9	0.916	1
06949	Cadmium	7440-43-9	4.58	1.09	0.0829	1
01650	Calcium	7440-70-2	4,170	21.8	3.64	1
06951	Chromium	7440-47-3	47.5	3.27	0.174	1
06952	Cobalt	7440-48-4	55.7	1.09	0.108	1
06953	Copper	7440-50-8	46.7	2.18	0.316	1
01654	Iron	7439-89-6	23,500	43.6	3.95	1
06955	Lead	7439-92-1	21.9	3.27	0.545	1
01656	Lithium	7439-93-2	134	4.4	0.37	1
01657	Magnesium	7439-95-4	5,260	10.9	1.82	1
06958	Manganese	7439-96-5	393	1.09	0.0905	1
06960	Molybdenum	7439-98-7	203	2.18	0.185	1
06961	Nickel	7440-02-0	65.2	2.18	0.142	1
10145	Phosphorus	7723-14-0	454	10.9	3.15	1
01662	Potassium	7440-09-7	4,130	109	9.09	1
01667	Sodium	7440-23-5	1,230	109	18.2	1
06969	Tin	7440-31-5	381	10.9	0.240	1
06970	Titanium	7440-32-6	1,510	1.09	0.185	1
06971	Vanadium	7440-62-2	97.2	1.09	0.142	1
06972	Zinc	7440-66-6	107	4.36	0.218	1
10146	Zirconium	7440-67-7	107	5.45	0.916	1
	SW-846 6020A		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.62	0.436	0.109	2
06142	Silver	7440-22-4	12.3	0.218	0.0284	2
06144	Strontium	7440-24-6	38.1	0.436	0.0741	2
06145	Thallium	7440-28-0	0.745	0.218	0.0327	2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.192	0.0175	0.0105	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	9.2	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336142
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83940 SDG#: PH159-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	20.3		1.07	0.0817	1
11031	12378-PeCDD	40321-76-4	104		5.34	0.0709	1
11031	123478-HxCDD	39227-28-6	102	B	5.34	0.0556	1
11031	123678-HxCDD	57653-85-7	105	B	5.34	0.0577	1
11031	123789-HxCDD	19408-74-3	103	B	5.34	0.0536	1
11031	1234678-HpCDD	35822-46-9	103	B	5.34	0.0487	1
11031	OCDD	3268-87-9	215	B	10.7	0.0480	1
11031	2378-TCDF	51207-31-9	20.2		1.07	0.0803	1
11031	12378-PeCDF	57117-41-6	104	B	5.34	0.0444	1
11031	23478-PeCDF	57117-31-4	104	B	5.34	0.0420	1
11031	123478-HxCDF	70648-26-9	106	B	5.34	0.0538	1
11031	123678-HxCDF	57117-44-9	107	B	5.34	0.0518	1
11031	123789-HxCDF	72918-21-9	108	B	5.34	0.0585	1
11031	234678-HxCDF	60851-34-5	107	B	5.34	0.0536	1
11031	1234678-HpCDF	67562-39-4	105	B	5.34	0.0416	1
11031	1234789-HpCDF	55673-89-7	107	B	5.34	0.0524	1
11031	OCDF	39001-02-0	206	B	10.7	0.0517	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	57	25 - 164
13C12-12378-PeCDD	59	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	72	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	72	23 - 140
13C12-OCDD	67	17 - 157
13C12-2378-TCDF	55	24 - 169
13C12-12378-PeCDF	57	24 - 185
13C12-23478-PeCDF	58	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	69	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	72	28 - 143
13C12-1234789-HpCDF	66	26 - 138
13C12-OCDF	62	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336142
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83940 SDG#: PH159-02MSD

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14022SLC026	01/24/2014 08:48	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14022SLC026	01/23/2014 02:00	David V Hershey Jr	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14016B16A	01/18/2014 05:10	Laura M Krieger	23.54
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201401533622	01/15/2014 19:24	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201401533622	01/15/2014 19:25	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	140210005A	01/23/2014 14:48	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	140210005A	01/22/2014 09:00	David S Schrum	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	140220009A	01/23/2014 18:49	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	140220009A	01/23/2014 02:00	David V Hershey Jr	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	14021002	01/23/2014 22:46	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	14021002	01/21/2014 09:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1
06944	Antimony	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1
06935	Arsenic	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1
06946	Barium	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1
06947	Beryllium	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1
07914	Boron	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1
06949	Cadmium	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1
01650	Calcium	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1
06951	Chromium	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1
06952	Cobalt	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1
06953	Copper	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1
01654	Iron	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1
06955	Lead	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1
01656	Lithium	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1
01657	Magnesium	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1
06958	Manganese	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1
06960	Molybdenum	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1
06961	Nickel	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1
10145	Phosphorus	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1
01662	Potassium	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1
01667	Sodium	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1
06969	Tin	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1
06970	Titanium	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1
06971	Vanadium	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1
06972	Zinc	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336142
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83940 SDG#: PH159-02MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	140200637001	01/21/2014 13:54	Maria A Orrs	1
06141	Selenium	SW-846 6020A	1	140200637001B	01/24/2014 06:29	Deborah A Krady	2
06142	Silver	SW-846 6020A	1	140200637001A	01/24/2014 06:29	Deborah A Krady	2
06144	Strontium	SW-846 6020A	1	140200637001A	01/24/2014 06:29	Deborah A Krady	2
06145	Thallium	SW-846 6020A	1	140200637001A	01/24/2014 11:56	Deborah A Krady	2
00159	3a Mercury 7471A	SW-846 7471B	1	140150638001	01/17/2014 11:02	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	140200637001	01/20/2014 22:10	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	140150638001	01/16/2014 12:25	Denise K Conners	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14022162401B	01/22/2014 22:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336143
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83940 SDG#: PH159-02DUP

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	16,200		43.6	7.86	1
06944	Antimony	7440-36-0	4.36	U	4.36	0.807	1
06935	Arsenic	7440-38-2	4.58		4.36	0.763	1
06946	Barium	7440-39-3	99.9		1.09	0.0360	1
06947	Beryllium	7440-41-7	0.713	J	1.09	0.0731	1
07914	Boron	7440-42-8	1.43	J	10.9	0.916	1
06949	Cadmium	7440-43-9	1.09	U	1.09	0.0829	1
01650	Calcium	7440-70-2	3,470		21.8	3.64	1
06951	Chromium	7440-47-3	25.3		3.27	0.174	1
06952	Cobalt	7440-48-4	5.32		1.09	0.108	1
06953	Copper	7440-50-8	17.5		2.18	0.316	1
01654	Iron	7439-89-6	22,200		43.6	3.95	1
06955	Lead	7439-92-1	6.09		3.27	0.545	1
01656	Lithium	7439-93-2	25.8		4.4	0.37	1
01657	Magnesium	7439-95-4	4,690		10.9	1.82	1
06958	Manganese	7439-96-5	311		1.09	0.0905	1
06960	Molybdenum	7439-98-7	2.32		2.18	0.185	1
06961	Nickel	7440-02-0	13.0		2.18	0.142	1
10145	Phosphorus	7723-14-0	322		10.9	3.15	1
01662	Potassium	7440-09-7	2,690		109	9.09	1
01667	Sodium	7440-23-5	175		109	18.2	1
06969	Tin	7440-31-5	3.17	J	10.9	0.240	1
06970	Titanium	7440-32-6	1,180		1.09	0.185	1
06971	Vanadium	7440-62-2	38.3		1.09	0.142	1
06972	Zinc	7440-66-6	54.5		4.36	0.218	1
10146	Zirconium	7440-67-7	3.73	J	5.45	0.916	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.436	U	0.436	0.109	2
06142	Silver	7440-22-4	0.0408	J	0.218	0.0284	2
06144	Strontium	7440-24-6	25.1		0.436	0.0741	2
06145	Thallium	7440-28-0	0.278		0.218	0.0327	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0179	U	0.0179	0.0107	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.61		0.0100	0.0100	1
	The pH was measured in water at 19.3 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	9.2		0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	9.0		0.10	0.10	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336143
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83940 SDG#: PH159-02DUP

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
06944	Antimony	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
06935	Arsenic	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
06946	Barium	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
06947	Beryllium	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
07914	Boron	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
06949	Cadmium	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
01650	Calcium	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
06951	Chromium	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
06952	Cobalt	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
06953	Copper	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
01654	Iron	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
06955	Lead	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
01656	Lithium	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
01657	Magnesium	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
06958	Manganese	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
06960	Molybdenum	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
06961	Nickel	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
10145	Phosphorus	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
01662	Potassium	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
01667	Sodium	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
06969	Tin	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
06970	Titanium	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
06971	Vanadium	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
06972	Zinc	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
10146	Zirconium	SW-846 6010C	1	140200637001	01/21/2014 13:46	Maria A Orrs	1
06141	Selenium	SW-846 6020A	1	140200637001B	01/24/2014 06:24	Deborah A Krady	2
06142	Silver	SW-846 6020A	1	140200637001A	01/24/2014 06:24	Deborah A Krady	2
06144	Strontium	SW-846 6020A	1	140200637001A	01/24/2014 06:24	Deborah A Krady	2
06145	Thallium	SW-846 6020A	1	140200637001A	01/24/2014 11:52	Deborah A Krady	2
00159	3a Mercury 7471A	SW-846 7471B	1	140150638001	01/17/2014 10:58	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	140200637001	01/20/2014 22:10	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	140150638001	01/16/2014 12:25	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14016039401B	01/16/2014 09:30	Yolunder Y Bunch	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14022162401B	01/22/2014 22:29	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	14022162401B	01/22/2014 22:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-1139-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336144
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:10 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11394 SDG#: PH159-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.73	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	0.67	J	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	2.7		1.8	0.73	1
12969	Benzo(a)pyrene	50-32-8	1.8	J	1.8	0.73	1
12969	Benzo(b)fluoranthene	205-99-2	3.0		1.8	0.73	1
12969	Benzo(e)pyrene	192-97-2	19	U	19	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.73	1
12969	Benzo(k)fluoranthene	207-08-9	1.3	J	1.8	0.73	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.6	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.6	1
12969	Chrysene	218-01-9	3.4		1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.73	1
12969	Diethylphthalate	84-66-2	20	U	20	6.6	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.6	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20	U	20	6.6	1
12969	Fluoranthene	206-44-0	6.2		1.8	0.73	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.73	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.73	1
12969	1-Methylnaphthalene	90-12-0	2.2		1.8	0.73	1
12969	2-Methylnaphthalene	91-57-6	3.4		1.8	0.73	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.73	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.73	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.6	1
12969	Phenanthrene	85-01-8	3.1		1.8	0.73	1
12969	Pyrene	129-00-0	8.3		1.8	0.73	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	24.13
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	19	U	19	3.6	1
13099	PCB-1221	11104-28-2	19	U	19	5.6	1
13099	PCB-1232	11141-16-5	19	U	19	4.5	1
13099	PCB-1242	53469-21-9	19	U	19	4.5	1
13099	PCB-1248	12672-29-6	19		19	3.6	1
13099	PCB-1254	11097-69-1	19	U	19	4.8	1
13099	PCB-1260	11096-82-5	19	U	19	4.3	1
13099	PCB-1262	37324-23-5	19	U	19	3.6	1
13099	PCB-1268	11100-14-4	19	U	19	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	5.5	U	5.5	2.2	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-1139-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336144
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:10 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11394 SDG#: PH159-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.4	1
12952	EFH (C8-C11)	n.a.	5.5	U	5.5	2.2	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,000		42.9	7.73	1
06944	Antimony	7440-36-0	4.29	U	4.29	0.794	1
06935	Arsenic	7440-38-2	4.48		4.29	0.751	1
06946	Barium	7440-39-3	102		1.07	0.0354	1
06947	Beryllium	7440-41-7	0.717	J	1.07	0.0719	1
07914	Boron	7440-42-8	1.30	J	10.7	0.901	1
06949	Cadmium	7440-43-9	1.07	U	1.07	0.0815	1
01650	Calcium	7440-70-2	3,650		21.5	3.58	1
06951	Chromium	7440-47-3	23.6		3.22	0.172	1
06952	Cobalt	7440-48-4	5.77		1.07	0.106	1
06953	Copper	7440-50-8	17.6		2.15	0.311	1
01654	Iron	7439-89-6	23,200		42.9	3.88	1
06955	Lead	7439-92-1	6.30		3.22	0.536	1
01656	Lithium	7439-93-2	25.2		4.3	0.36	1
01657	Magnesium	7439-95-4	4,850		10.7	1.79	1
06958	Manganese	7439-96-5	329		1.07	0.0890	1
06960	Molybdenum	7439-98-7	1.65	J	2.15	0.182	1
06961	Nickel	7440-02-0	13.2		2.15	0.139	1
10145	Phosphorus	7723-14-0	351		10.7	3.10	1
01662	Potassium	7440-09-7	2,710		107	8.95	1
01667	Sodium	7440-23-5	171		107	17.9	1
06969	Tin	7440-31-5	3.22	J	10.7	0.236	1
06970	Titanium	7440-32-6	1,110		1.07	0.182	1
06971	Vanadium	7440-62-2	39.2		1.07	0.139	1
06972	Zinc	7440-66-6	55.2		4.29	0.215	1
10146	Zirconium	7440-67-7	2.96	J	5.36	0.901	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.124	J	0.429	0.107	2
06142	Silver	7440-22-4	0.0306	J	0.215	0.0279	2
06144	Strontium	7440-24-6	23.6		0.429	0.0729	2
06145	Thallium	7440-28-0	0.266		0.215	0.0322	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0173	U	0.0173	0.0104	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 19.2 C.	n.a.	7.77		0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	8.6		0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-1139-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336144
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:10 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11394 SDG#: PH159-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

Sample Description: SL-1139-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336144
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:10 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11394 SDG#: PH159-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.05	U	1.05	0.0757	1
11031	12378-PeCDD	40321-76-4	0.0499	J	5.23	0.0405	1
11031	123478-HxCDD	39227-28-6	0.0806	JBQ	5.23	0.0299	1
11031	123678-HxCDD	57653-85-7	0.260	JBQ	5.23	0.0322	1
11031	123789-HxCDD	19408-74-3	0.424	JBQ	5.23	0.0295	1
11031	1234678-HpCDD	35822-46-9	0.397	JB	5.23	0.0231	1
11031	OCDD	3268-87-9	3.41	JB	10.5	0.0292	1
11031	2378-TCDF	51207-31-9	0.0983	JQ	1.05	0.0613	1
11031	12378-PeCDF	57117-41-6	0.153	JBQ	5.23	0.0283	1
11031	23478-PeCDF	57117-31-4	0.336	JB	5.23	0.0255	1
11031	123478-HxCDF	70648-26-9	0.163	JB	5.23	0.0273	1
11031	123678-HxCDF	57117-44-9	0.152	JB	5.23	0.0272	1
11031	123789-HxCDF	72918-21-9	0.399	JB	5.23	0.0261	1
11031	234678-HxCDF	60851-34-5	0.158	JB	5.23	0.0257	1
11031	1234678-HpCDF	67562-39-4	0.171	JB	5.23	0.0138	1
11031	1234789-HpCDF	55673-89-7	0.0790	JBQ	5.23	0.0180	1
11031	OCDF	39001-02-0	0.373	JBQ	10.5	0.0376	1
D/F Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.245				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	60	25 - 164
13C12-12378-PeCDD	61	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	72	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	74	23 - 140
13C12-OCDD	69	17 - 157
13C12-2378-TCDF	58	24 - 169
13C12-12378-PeCDF	60	24 - 185
13C12-23478-PeCDF	60	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	67	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	73	29 - 147
13C12-1234678-HpCDF	75	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	62	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

Sample Description: SL-1139-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336144
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:10 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11394 SDG#: PH159-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-1139-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336144
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:10 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11394 SDG#: PH159-03

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14022SLC026	01/24/2014 09:51	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14022SLC026	01/23/2014 02:00	David V Hershey Jr	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14016B16A	01/18/2014 00:46	Laura M Krieger	24.13
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201401533622	01/15/2014 19:25	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201401533622	01/15/2014 19:26	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	140210005A	01/23/2014 15:06	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	140210005A	01/22/2014 09:00	David S Schrum	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	140220009A	01/23/2014 17:24	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	140220009A	01/23/2014 02:00	David V Hershey Jr	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	14021002	01/23/2014 23:43	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	14021002	01/21/2014 09:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1
06944	Antimony	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1
06935	Arsenic	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1
06946	Barium	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1
06947	Beryllium	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1
07914	Boron	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1
06949	Cadmium	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1
01650	Calcium	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1
06951	Chromium	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1
06952	Cobalt	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1
06953	Copper	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1
01654	Iron	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1
06955	Lead	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1
01656	Lithium	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1
01657	Magnesium	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1
06958	Manganese	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1
06960	Molybdenum	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1
06961	Nickel	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1
10145	Phosphorus	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1
01662	Potassium	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1
01667	Sodium	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1
06969	Tin	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1
06970	Titanium	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1
06971	Vanadium	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1
06972	Zinc	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-1139-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336144
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 09:10 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11394 SDG#: PH159-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	140200637001	01/21/2014 14:06	Maria A Orrs	1
06141	Selenium	SW-846 6020A	1	140200637001B	01/24/2014 06:36	Deborah A Krady	2
06142	Silver	SW-846 6020A	1	140200637001A	01/24/2014 06:36	Deborah A Krady	2
06144	Strontium	SW-846 6020A	1	140200637001A	01/24/2014 06:36	Deborah A Krady	2
06145	Thallium	SW-846 6020A	1	140200637001A	01/24/2014 12:04	Deborah A Krady	2
00159	3a Mercury 7471A	SW-846 7471B	1	140150638001	01/17/2014 11:04	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	140200637001	01/20/2014 22:10	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	140150638001	01/16/2014 12:25	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14016039401B	01/16/2014 09:30	Yolunder Y Bunch	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14022162401B	01/22/2014 22:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336145
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 10:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83990 SDG#: PH159-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.73	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.37	1
12969	Anthracene	120-12-7	1.6	J	1.8	0.37	1
12969	Benzo(a)anthracene	56-55-3	9.8		1.8	0.73	1
12969	Benzo(a)pyrene	50-32-8	6.3		1.8	0.73	1
12969	Benzo(b)fluoranthene	205-99-2	10		1.8	0.73	1
12969	Benzo(e)pyrene	192-97-2	4.7	J	19	3.7	1
12969	Benzo(g,h,i)perylene	191-24-2	1.5	J	1.8	0.73	1
12969	Benzo(k)fluoranthene	207-08-9	5.5		1.8	0.73	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.6	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.6	1
12969	Chrysene	218-01-9	12		1.8	0.37	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.73	1
12969	Diethylphthalate	84-66-2	20	U	20	6.6	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.6	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	22		20	6.6	1
12969	Fluoranthene	206-44-0	23		1.8	0.73	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.73	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	J	1.8	0.73	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.73	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.73	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.73	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.73	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.6	1
12969	Phenanthrene	85-01-8	5.5		1.8	0.73	1
12969	Pyrene	129-00-0	29		1.8	0.73	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.

GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	24.41
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	19	U	19	3.6	1
13099	PCB-1221	11104-28-2	19	U	19	5.6	1
13099	PCB-1232	11141-16-5	19	U	19	4.5	1
13099	PCB-1242	53469-21-9	19	U	19	4.5	1
13099	PCB-1248	12672-29-6	31		19	3.6	1
13099	PCB-1254	11097-69-1	19	U	19	4.8	1
13099	PCB-1260	11096-82-5	19	U	19	4.3	1
13099	PCB-1262	37324-23-5	19	U	19	3.6	1
13099	PCB-1268	11100-14-4	19	U	19	3.6	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336145
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 10:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83990 SDG#: PH159-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C21-C30)	n.a.	4.2	J	5.5	2.2	1
12952	EFH (C30-C40)	n.a.	12		11	4.4	1
12952	EFH (C8-C11)	n.a.	5.5	U	5.5	2.2	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,200		43.2	7.78	1
06944	Antimony	7440-36-0	4.32	U	4.32	0.799	1
06935	Arsenic	7440-38-2	4.74		4.32	0.756	1
06946	Barium	7440-39-3	98.2		1.08	0.0356	1
06947	Beryllium	7440-41-7	0.730	J	1.08	0.0723	1
07914	Boron	7440-42-8	1.03	J	10.8	0.907	1
06949	Cadmium	7440-43-9	1.08	U	1.08	0.0821	1
01650	Calcium	7440-70-2	6,260		21.6	3.61	1
06951	Chromium	7440-47-3	36.5		3.24	0.173	1
06952	Cobalt	7440-48-4	5.78		1.08	0.107	1
06953	Copper	7440-50-8	18.7		2.16	0.313	1
01654	Iron	7439-89-6	24,200		43.2	3.91	1
06955	Lead	7439-92-1	7.03		3.24	0.540	1
01656	Lithium	7439-93-2	28.7		4.3	0.37	1
01657	Magnesium	7439-95-4	5,320		10.8	1.80	1
06958	Manganese	7439-96-5	324		1.08	0.0896	1
06960	Molybdenum	7439-98-7	0.542	J	2.16	0.184	1
06961	Nickel	7440-02-0	25.1		2.16	0.140	1
10145	Phosphorus	7723-14-0	404		10.8	3.12	1
01662	Potassium	7440-09-7	2,900		108	9.00	1
01667	Sodium	7440-23-5	195		108	18.0	1
06969	Tin	7440-31-5	3.23	J	10.8	0.238	1
06970	Titanium	7440-32-6	1,170		1.08	0.184	1
06971	Vanadium	7440-62-2	40.3		1.08	0.140	1
06972	Zinc	7440-66-6	63.8		4.32	0.216	1
10146	Zirconium	7440-67-7	3.22	J	5.40	0.907	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.122	J	0.432	0.108	2
06142	Silver	7440-22-4	0.0466	J	0.216	0.0281	2
06144	Strontium	7440-24-6	27.3		0.432	0.0734	2
06145	Thallium	7440-28-0	0.254		0.216	0.0324	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0195		0.0178	0.0107	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.88		0.0100	0.0100	1
	The pH was measured in water at 19.7 C.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336145
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 10:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83990 SDG#: PH159-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	9.2	0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336145
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 10:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83990 SDG#: PH159-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0640 JQ	1.03	0.0590	1
11031	12378-PeCDD	40321-76-4	0.0711 JQ	5.13	0.0370	1
11031	123478-HxCDD	39227-28-6	0.0509 JBQ	5.13	0.0280	1
11031	123678-HxCDD	57653-85-7	0.316 JBQ	5.13	0.0286	1
11031	123789-HxCDD	19408-74-3	0.385 JB	5.13	0.0274	1
11031	1234678-HpCDD	35822-46-9	4.26 JB	5.13	0.0265	1
11031	OCDD	3268-87-9	34.0 B	10.3	0.0278	1
11031	2378-TCDF	51207-31-9	1.03 U	1.03	0.0501	1
11031	12378-PeCDF	57117-41-6	0.0974 JBQ	5.13	0.0231	1
11031	23478-PeCDF	57117-31-4	0.129 JB	5.13	0.0216	1
11031	123478-HxCDF	70648-26-9	0.0887 JBQ	5.13	0.0229	1
11031	123678-HxCDF	57117-44-9	0.107 JBQ	5.13	0.0220	1
11031	123789-HxCDF	72918-21-9	0.277 JB	5.13	0.0226	1
11031	234678-HxCDF	60851-34-5	0.0936 JBQ	5.13	0.0207	1
11031	1234678-HpCDF	67562-39-4	1.24 JB	5.13	0.0128	1
11031	1234789-HpCDF	55673-89-7	0.107 JBQ	5.13	0.0159	1
11031	OCDF	39001-02-0	6.51 JB	10.3	0.0285	1
D/F Toxic Equivalents	**EPA 1613B**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.172			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	67	25 - 164
13C12-12378-PeCDD	65	25 - 181
13C12-123478-HxCDD	75	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	74	17 - 157
13C12-2378-TCDF	63	24 - 169
13C12-12378-PeCDF	64	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	78	29 - 147
13C12-1234678-HpCDF	83	28 - 143
13C12-1234789-HpCDF	74	26 - 138
13C12-OCDF	68	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336145
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 10:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83990 SDG#: PH159-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336145
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 10:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83990 SDG#: PH159-04

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14022SLC026	01/24/2014 10:22	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14022SLC026	01/23/2014 02:00	David V Hershey Jr	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14016B16A	01/18/2014 01:24	Laura M Krieger	24.41
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201401533622	01/15/2014 19:27	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201401533622	01/15/2014 19:27	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	140210005A	01/23/2014 15:25	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	140210005A	01/22/2014 09:00	David S Schrum	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	140220009A	01/23/2014 19:11	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	140220009A	01/23/2014 02:00	David V Hershey Jr	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	14021002	01/24/2014 00:40	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	14021002	01/21/2014 09:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1
06944	Antimony	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1
06935	Arsenic	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1
06946	Barium	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1
06947	Beryllium	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1
07914	Boron	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1
06949	Cadmium	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1
01650	Calcium	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1
06951	Chromium	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1
06952	Cobalt	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1
06953	Copper	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1
01654	Iron	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1
06955	Lead	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1
01656	Lithium	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1
01657	Magnesium	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1
06958	Manganese	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1
06960	Molybdenum	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1
06961	Nickel	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1
10145	Phosphorus	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1
01662	Potassium	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1
01667	Sodium	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1
06969	Tin	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1
06970	Titanium	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1
06971	Vanadium	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1
06972	Zinc	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336145
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 10:15 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83990 SDG#: PH159-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	140200637001	01/21/2014 14:17	Maria A Orrs	1
06141	Selenium	SW-846 6020A	1	140200637001B	01/24/2014 06:43	Deborah A Krady	2
06142	Silver	SW-846 6020A	1	140200637001A	01/24/2014 06:43	Deborah A Krady	2
06144	Strontium	SW-846 6020A	1	140200637001A	01/24/2014 06:43	Deborah A Krady	2
06145	Thallium	SW-846 6020A	1	140200637001A	01/24/2014 12:06	Deborah A Krady	2
00159	3a Mercury 7471A	SW-846 7471B	1	140150638001	01/17/2014 11:06	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	140200637001	01/20/2014 22:10	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	140150638001	01/16/2014 12:25	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14016039401B	01/16/2014 09:30	Yolunder Y Bunch	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14022162401B	01/22/2014 22:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-15.5-16.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336146
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 10:30 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83915 SDG#: PH159-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	29		1.9	0.77	1
12969	Acenaphthylene	208-96-8	1.9	U	1.9	0.39	1
12969	Anthracene	120-12-7	130		1.9	0.39	1
12969	Benzo(a)anthracene	56-55-3	110		1.9	0.77	1
12969	Benzo(a)pyrene	50-32-8	48		1.9	0.77	1
12969	Benzo(b)fluoranthene	205-99-2	83		1.9	0.77	1
12969	Benzo(e)pyrene	192-97-2	31		20	3.9	1
12969	Benzo(g,h,i)perylene	191-24-2	11		1.9	0.77	1
12969	Benzo(k)fluoranthene	207-08-9	43		1.9	0.77	1
12969	Butylbenzylphthalate	85-68-7	21	U	21	7.0	1
12969	Di-n-butylphthalate	84-74-2	21	U	21	7.0	1
12969	Chrysene	218-01-9	100		1.9	0.39	1
12969	Dibenz(a,h)anthracene	53-70-3	4.3		1.9	0.77	1
12969	Diethylphthalate	84-66-2	21	U	21	7.0	1
12969	Dimethylphthalate	131-11-3	21	U	21	7.0	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	21	U	21	7.0	1
12969	Fluoranthene	206-44-0	470		19	7.7	10
12969	Fluorene	86-73-7	19		1.9	0.77	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	12		1.9	0.77	1
12969	1-Methylnaphthalene	90-12-0	0.87	J	1.9	0.77	1
12969	2-Methylnaphthalene	91-57-6	1.2	J	1.9	0.77	1
12969	Naphthalene	91-20-3	1.1	J	1.9	0.77	1
12969	N-Nitrosodimethylamine	62-75-9	1.9	U	1.9	0.77	1
12969	Di-n-octylphthalate	117-84-0	21	U	21	7.0	1
12969	Phenanthrene	85-01-8	570		19	7.7	10
12969	Pyrene	129-00-0	550		19	7.7	10
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.2	U	1.2	0.2	26.04
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	38	U	38	12	1
13099	Aroclor 5442	12642-23-8	38	U	38	12	1
13099	Aroclor 5460	11126-42-4	38	U	38	12	1
13099	PCB-1016	12674-11-2	20	U	20	3.8	1
13099	PCB-1221	11104-28-2	20	U	20	5.9	1
13099	PCB-1232	11141-16-5	20	U	20	4.8	1
13099	PCB-1242	53469-21-9	20	U	20	4.8	1
13099	PCB-1248	12672-29-6	20	U	20	3.8	1
13099	PCB-1254	11097-69-1	20	U	20	5.1	1
13099	PCB-1260	11096-82-5	20	U	20	4.5	1
13099	PCB-1262	37324-23-5	20	U	20	3.8	1
13099	PCB-1268	11100-14-4	20	U	20	3.8	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.8	U	5.8	2.3	1
12952	EFH (C15-C20)	n.a.	5.8	U	5.8	2.3	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-15.5-16.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336146
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 10:30 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83915 SDG#: PH159-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	4.6	J	5.8	2.3	1
12952	EFH (C30-C40)	n.a.	7.4	J	12	4.6	1
12952	EFH (C8-C11)	n.a.	4.5	J	5.8	2.3	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	10,800		44.7	8.05	1
06944	Antimony	7440-36-0	4.47	U	4.47	0.826	1
06935	Arsenic	7440-38-2	3.37	J	4.47	0.782	1
06946	Barium	7440-39-3	84.2		1.12	0.0369	1
06947	Beryllium	7440-41-7	0.462	J	1.12	0.0748	1
07914	Boron	7440-42-8	1.98	J	11.2	0.938	1
06949	Cadmium	7440-43-9	1.12	U	1.12	0.0849	1
01650	Calcium	7440-70-2	17,000		22.3	3.73	1
06951	Chromium	7440-47-3	16.5		3.35	0.179	1
06952	Cobalt	7440-48-4	4.28		1.12	0.111	1
06953	Copper	7440-50-8	16.1		2.23	0.324	1
01654	Iron	7439-89-6	19,500		44.7	4.04	1
06955	Lead	7439-92-1	4.50		3.35	0.558	1
01656	Lithium	7439-93-2	22.6		4.5	0.38	1
01657	Magnesium	7439-95-4	5,200		11.2	1.87	1
06958	Manganese	7439-96-5	265		1.12	0.0927	1
06960	Molybdenum	7439-98-7	0.271	J	2.23	0.190	1
06961	Nickel	7440-02-0	12.1		2.23	0.145	1
10145	Phosphorus	7723-14-0	463		11.2	3.23	1
01662	Potassium	7440-09-7	2,700		112	9.31	1
01667	Sodium	7440-23-5	463		112	18.7	1
06969	Tin	7440-31-5	2.99	J	11.2	0.246	1
06970	Titanium	7440-32-6	1,110		1.12	0.190	1
06971	Vanadium	7440-62-2	37.2		1.12	0.145	1
06972	Zinc	7440-66-6	61.8		4.47	0.223	1
10146	Zirconium	7440-67-7	4.55	J	5.58	0.938	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.447	U	0.447	0.112	2
06142	Silver	7440-22-4	0.0323	J	0.223	0.0290	2
06144	Strontium	7440-24-6	70.4		0.447	0.0759	2
06145	Thallium	7440-28-0	0.188	J	0.223	0.0335	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0193	U	0.0193	0.0116	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 19.2 C.	n.a.	11.9		0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	13.9		0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-15.5-16.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336146
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 10:30 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83915 SDG#: PH159-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-15.5-16.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336146
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 10:30 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83915 SDG#: PH159-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.13	U	1.13	0.0701	1
11031	12378-PeCDD	40321-76-4	5.65	U	5.65	0.0414	1
11031	123478-HxCDD	39227-28-6	5.65	U	5.65	0.0283	1
11031	123678-HxCDD	57653-85-7	5.65	U	5.65	0.0304	1
11031	123789-HxCDD	19408-74-3	0.0405	JB	5.65	0.0272	1
11031	1234678-HpCDD	35822-46-9	0.733	JB	5.65	0.0270	1
11031	OCDD	3268-87-9	3.21	JB	11.3	0.0315	1
11031	2378-TCDF	51207-31-9	1.13	U	1.13	0.0543	1
11031	12378-PeCDF	57117-41-6	0.0717	JB	5.65	0.0236	1
11031	23478-PeCDF	57117-31-4	0.118	JBQ	5.65	0.0227	1
11031	123478-HxCDF	70648-26-9	0.121	JB	5.65	0.0234	1
11031	123678-HxCDF	57117-44-9	0.0755	JBQ	5.65	0.0226	1
11031	123789-HxCDF	72918-21-9	0.0988	JB	5.65	0.0231	1
11031	234678-HxCDF	60851-34-5	0.0712	JBQ	5.65	0.0230	1
11031	1234678-HpCDF	67562-39-4	0.203	JB	5.65	0.0101	1
11031	1234789-HpCDF	55673-89-7	0.111	JB	5.65	0.0137	1
11031	OCDF	39001-02-0	0.332	JB	11.3	0.0345	1
D/F Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0398				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	59	25 - 164
13C12-12378-PeCDD	58	25 - 181
13C12-123478-HxCDD	69	32 - 141
13C12-123678-HxCDD	67	28 - 130
13C12-123789-HxCDD	69	28 - 130
13C12-1234678-HpCDD	69	23 - 140
13C12-OCDD	68	17 - 157
13C12-2378-TCDF	56	24 - 169
13C12-12378-PeCDF	57	24 - 185
13C12-23478-PeCDF	57	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	70	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	76	28 - 143
13C12-1234789-HpCDF	66	26 - 138
13C12-OCDF	61	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-15.5-16.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336146
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 10:30 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83915 SDG#: PH159-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-15.5-16.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336146
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 10:30 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83915 SDG#: PH159-05

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14022SLC026	01/24/2014 10:53	Mark A Clark	1
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14022SLC026	01/30/2014 10:22	Mark A Clark	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	14022SLC026	01/23/2014 02:00	David V Hershey Jr	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14016B16A	01/18/2014 02:01	Laura M Krieger	26.04
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201401533622	01/15/2014 19:28	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201401533622	01/15/2014 19:28	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	140210005A	01/23/2014 15:43	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	140210005A	01/22/2014 09:00	David S Schrum	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	140220009A	01/23/2014 16:41	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	140220009A	01/23/2014 02:00	David V Hershey Jr	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	14021002	01/24/2014 01:36	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	14021002	01/21/2014 09:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1
06944	Antimony	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1
06935	Arsenic	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1
06946	Barium	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1
06947	Beryllium	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1
07914	Boron	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1
06949	Cadmium	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1
01650	Calcium	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1
06951	Chromium	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1
06952	Cobalt	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1
06953	Copper	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1
01654	Iron	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1
06955	Lead	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1
01656	Lithium	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1
01657	Magnesium	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1
06958	Manganese	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1
06960	Molybdenum	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1
06961	Nickel	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1
10145	Phosphorus	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1
01662	Potassium	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1
01667	Sodium	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1
06969	Tin	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1
06970	Titanium	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1
06971	Vanadium	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-839-SA5B-SB-15.5-16.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336146
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 10:30 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83915 SDG#: PH159-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06972	Zinc	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1
10146	Zirconium	SW-846 6010C	1	140200637001	01/21/2014 14:21	Maria A Orrs	1
06141	Selenium	SW-846 6020A	1	140200637001B	01/24/2014 06:46	Deborah A Krady	2
06142	Silver	SW-846 6020A	1	140200637001A	01/24/2014 06:46	Deborah A Krady	2
06144	Strontium	SW-846 6020A	1	140200637001A	01/24/2014 06:46	Deborah A Krady	2
06145	Thallium	SW-846 6020A	1	140200637001A	01/24/2014 12:08	Deborah A Krady	2
00159	3a Mercury 7471A	SW-846 7471B	1	140150638001	01/17/2014 11:08	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	140200637001	01/20/2014 22:10	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	140150638001	01/16/2014 12:25	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14016039401B	01/16/2014 09:30	Yolunder Y Bunch	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14022162401B	01/22/2014 22:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-843-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336147
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 13:10 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84300 SDG#: PH159-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.9	U	1.9	0.74	1
12969	Acenaphthylene	208-96-8	1.9	U	1.9	0.37	1
12969	Anthracene	120-12-7	0.55	J	1.9	0.37	1
12969	Benzo(a)anthracene	56-55-3	2.4		1.9	0.74	1
12969	Benzo(a)pyrene	50-32-8	1.7	J	1.9	0.74	1
12969	Benzo(b)fluoranthene	205-99-2	3.7		1.9	0.74	1
12969	Benzo(e)pyrene	192-97-2	19	U	19	3.7	1
12969	Benzo(g,h,i)perylene	191-24-2	1.9	U	1.9	0.74	1
12969	Benzo(k)fluoranthene	207-08-9	1.5	J	1.9	0.74	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.7	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.7	1
12969	Chrysene	218-01-9	3.6		1.9	0.37	1
12969	Dibenz(a,h)anthracene	53-70-3	1.9	U	1.9	0.74	1
12969	Diethylphthalate	84-66-2	20	U	20	6.7	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.7	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20	U	20	6.7	1
12969	Fluoranthene	206-44-0	4.4		1.9	0.74	1
12969	Fluorene	86-73-7	1.9	U	1.9	0.74	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.9	U	1.9	0.74	1
12969	1-Methylnaphthalene	90-12-0	1.9	U	1.9	0.74	1
12969	2-Methylnaphthalene	91-57-6	1.9	U	1.9	0.74	1
12969	Naphthalene	91-20-3	1.9	U	1.9	0.74	1
12969	N-Nitrosodimethylamine	62-75-9	1.9	U	1.9	0.74	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.7	1
12969	Phenanthrene	85-01-8	1.8	J	1.9	0.74	1
12969	Pyrene	129-00-0	5.4		1.9	0.74	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	37	U	37	11	1
13099	Aroclor 5442	12642-23-8	370	U	370	110	10
13099	Aroclor 5460	11126-42-4	37	U	37	11	1
13099	PCB-1016	12674-11-2	19	U	19	3.7	1
13099	PCB-1221	11104-28-2	19	U	19	5.7	1
13099	PCB-1232	11141-16-5	19	U	19	4.6	1
13099	PCB-1242	53469-21-9	19	U	19	4.6	1
13099	PCB-1248	12672-29-6	6.7	J	19	3.7	1
13099	PCB-1254	11097-69-1	7.7	J	19	4.9	1
13099	PCB-1260	11096-82-5	19	U	19	4.3	1
13099	PCB-1262	37324-23-5	190	U	190	37	10
13099	PCB-1268	11100-14-4	190	U	190	37	10
	Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits. Reporting limits were raised due to interference from the sample matrix.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.6	U	5.6	2.2	1
12952	EFH (C15-C20)	n.a.	5.6	U	5.6	2.2	1
12952	EFH (C21-C30)	n.a.	7.0		5.6	2.2	1
12952	EFH (C30-C40)	n.a.	11		11	4.5	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-843-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336147
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 13:10 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84300 SDG#: PH159-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C8-C11)	n.a.	5.6	U	5.6	2.2	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	16,200		43.3	7.80	1
06944	Antimony	7440-36-0	4.33	U	4.33	0.801	1
06935	Arsenic	7440-38-2	6.07		4.33	0.758	1
06946	Barium	7440-39-3	98.9		1.08	0.0357	1
06947	Beryllium	7440-41-7	0.890	J	1.08	0.0725	1
07914	Boron	7440-42-8	10.8	U	10.8	0.909	1
06949	Cadmium	7440-43-9	1.08	U	1.08	0.0823	1
01650	Calcium	7440-70-2	2,760		21.6	3.62	1
06951	Chromium	7440-47-3	23.1		3.25	0.173	1
06952	Cobalt	7440-48-4	6.93		1.08	0.107	1
06953	Copper	7440-50-8	21.6		2.16	0.314	1
01654	Iron	7439-89-6	29,200		43.3	3.92	1
06955	Lead	7439-92-1	8.47		3.25	0.541	1
01656	Lithium	7439-93-2	24.4		4.3	0.37	1
01657	Magnesium	7439-95-4	5,040		10.8	1.81	1
06958	Manganese	7439-96-5	373		1.08	0.0898	1
06960	Molybdenum	7439-98-7	0.485	J	2.16	0.184	1
06961	Nickel	7440-02-0	15.2		2.16	0.141	1
10145	Phosphorus	7723-14-0	522		10.8	3.13	1
01662	Potassium	7440-09-7	3,580		108	9.03	1
01667	Sodium	7440-23-5	325		108	18.1	1
06969	Tin	7440-31-5	3.28	J	10.8	0.238	1
06970	Titanium	7440-32-6	1,190		1.08	0.184	1
06971	Vanadium	7440-62-2	44.3		1.08	0.141	1
06972	Zinc	7440-66-6	72.1		4.33	0.216	1
10146	Zirconium	7440-67-7	3.78	J	5.41	0.909	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.184	J	0.433	0.108	2
06142	Silver	7440-22-4	0.0418	J	0.216	0.0281	2
06144	Strontium	7440-24-6	24.5		0.433	0.0736	2
06145	Thallium	7440-28-0	0.279		0.216	0.0325	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0239		0.0177	0.0106	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 19 C.	n.a.	8.63		0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	10.3		0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-843-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336147
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 13:10 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84300 SDG#: PH159-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

Sample Description: SL-843-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336147
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 13:10 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84300 SDG#: PH159-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0867	JQ	1.10	0.0691	1
11031	12378-PeCDD	40321-76-4	0.242	JQ	5.49	0.0490	1
11031	123478-HxCDD	39227-28-6	0.0643	JBQ	5.49	0.0303	1
11031	123678-HxCDD	57653-85-7	0.665	JB	5.49	0.0313	1
11031	123789-HxCDD	19408-74-3	1.01	JB	5.49	0.0291	1
11031	1234678-HpCDD	35822-46-9	2.08	JB	5.49	0.0274	1
11031	OCDD	3268-87-9	15.0	B	11.0	0.0319	1
11031	2378-TCDF	51207-31-9	0.134	JQ	1.10	0.0639	1
11031	12378-PeCDF	57117-41-6	0.332	JBQ	5.49	0.0272	1
11031	23478-PeCDF	57117-31-4	0.138	JBQ	5.49	0.0260	1
11031	123478-HxCDF	70648-26-9	0.177	JB	5.49	0.0246	1
11031	123678-HxCDF	57117-44-9	0.203	JBQ	5.49	0.0233	1
11031	123789-HxCDF	72918-21-9	0.717	JBQ	5.49	0.0284	1
11031	234678-HxCDF	60851-34-5	0.128	JBQ	5.49	0.0239	1
11031	1234678-HpCDF	67562-39-4	0.449	JB	5.49	0.0112	1
11031	1234789-HpCDF	55673-89-7	0.114	JB	5.49	0.0158	1
11031	OCDF	39001-02-0	0.932	JB	11.0	0.0344	1
D/F Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.217				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	59	25 - 164
13C12-12378-PeCDD	62	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	73	28 - 130
13C12-123789-HxCDD	74	28 - 130
13C12-1234678-HpCDD	72	23 - 140
13C12-OCDD	69	17 - 157
13C12-2378-TCDF	56	24 - 169
13C12-12378-PeCDF	60	24 - 185
13C12-23478-PeCDF	60	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	81	28 - 143
13C12-1234789-HpCDF	68	26 - 138
13C12-OCDF	63	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

Sample Description: SL-843-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336147
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 13:10 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84300 SDG#: PH159-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-843-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336147
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 13:10 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84300 SDG#: PH159-06

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14022SLC026	01/24/2014 11:24	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14022SLC026	01/23/2014 02:00	David V Hershey Jr	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	140210005A	01/23/2014 16:02	Jessica L Miller	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	140210005A	01/24/2014 03:03	Jessica L Miller	10
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	140210005A	01/22/2014 09:00	David S Schrum	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	140220009A	01/23/2014 18:07	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	140220009A	01/23/2014 02:00	David V Hershey Jr	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	14021002	01/24/2014 02:33	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	14021002	01/21/2014 09:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
06944	Antimony	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
06935	Arsenic	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
06946	Barium	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
06947	Beryllium	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
07914	Boron	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
06949	Cadmium	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
01650	Calcium	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
06951	Chromium	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
06952	Cobalt	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
06953	Copper	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
01654	Iron	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
06955	Lead	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
01656	Lithium	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
01657	Magnesium	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
06958	Manganese	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
06960	Molybdenum	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
06961	Nickel	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
10145	Phosphorus	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
01662	Potassium	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
01667	Sodium	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
06969	Tin	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
06970	Titanium	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
06971	Vanadium	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
06972	Zinc	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
10146	Zirconium	SW-846 6010C	1	140200637001	01/21/2014 14:25	Maria A Orrs	1
06141	Selenium	SW-846 6020A	1	140200637001B	01/24/2014 06:48	Deborah A Krady	2
06142	Silver	SW-846 6020A	1	140200637001A	01/24/2014 06:48	Deborah A Krady	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-843-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336147
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 13:10 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84300 SDG#: PH159-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06144	Strontium	SW-846 6020A	1	140200637001A	01/24/2014 06:48	Deborah A Krady	2
06145	Thallium	SW-846 6020A	1	140200637001A	01/24/2014 12:10	Deborah A Krady	2
00159	3a Mercury 7471A	SW-846 7471B	1	140160638002	01/21/2014 11:10	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	140200637001	01/20/2014 22:10	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	140160638002	01/17/2014 12:25	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14016039401B	01/16/2014 09:30	Yolunder Y Bunch	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14022162401B	01/22/2014 22:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-843-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336148
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 13:30 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84340 SDG#: PH159-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.9	U	1.9	0.76	1
12969	Acenaphthylene	208-96-8	1.9	U	1.9	0.38	1
12969	Anthracene	120-12-7	1.9	U	1.9	0.38	1
12969	Benzo(a)anthracene	56-55-3	1.9	U	1.9	0.76	1
12969	Benzo(a)pyrene	50-32-8	0.95	J	1.9	0.76	1
12969	Benzo(b)fluoranthene	205-99-2	1.1	J	1.9	0.76	1
12969	Benzo(e)pyrene	192-97-2	19	U	19	3.8	1
12969	Benzo(g,h,i)perylene	191-24-2	1.9	U	1.9	0.76	1
12969	Benzo(k)fluoranthene	207-08-9	1.9	U	1.9	0.76	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.8	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.8	1
12969	Chrysene	218-01-9	1.6	J	1.9	0.38	1
12969	Dibenz(a,h)anthracene	53-70-3	1.9	U	1.9	0.76	1
12969	Diethylphthalate	84-66-2	20	U	20	6.8	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.8	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20	U	20	6.8	1
12969	Fluoranthene	206-44-0	1.1	J	1.9	0.76	1
12969	Fluorene	86-73-7	1.9	U	1.9	0.76	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.9	U	1.9	0.76	1
12969	1-Methylnaphthalene	90-12-0	1.9	U	1.9	0.76	1
12969	2-Methylnaphthalene	91-57-6	1.9	U	1.9	0.76	1
12969	Naphthalene	91-20-3	0.91	J	1.9	0.76	1
12969	N-Nitrosodimethylamine	62-75-9	1.9	U	1.9	0.76	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.8	1
12969	Phenanthrene	85-01-8	1.1	J	1.9	0.76	1
12969	Pyrene	129-00-0	1.4	J	1.9	0.76	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2	22.01
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	38	U	38	11	1
13099	Aroclor 5442	12642-23-8	38	U	38	11	1
13099	Aroclor 5460	11126-42-4	38	U	38	11	1
13099	PCB-1016	12674-11-2	19	U	19	3.8	1
13099	PCB-1221	11104-28-2	19	U	19	5.8	1
13099	PCB-1232	11141-16-5	19	U	19	4.7	1
13099	PCB-1242	53469-21-9	19	U	19	4.7	1
13099	PCB-1248	12672-29-6	8.6	J	19	3.8	1
13099	PCB-1254	11097-69-1	6.5	J	19	5.0	1
13099	PCB-1260	11096-82-5	19	U	19	4.4	1
13099	PCB-1262	37324-23-5	19	U	19	3.8	1
13099	PCB-1268	11100-14-4	19	U	19	3.8	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.7	U	5.7	2.3	1
12952	EFH (C15-C20)	n.a.	5.7	U	5.7	2.3	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-843-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336148
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 13:30 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84340 SDG#: PH159-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	4.8	J	5.7	2.3	1
12952	EFH (C30-C40)	n.a.	11	J	11	4.6	1
12952	EFH (C8-C11)	n.a.	5.7	U	5.7	2.3	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	21,100		45.1	8.12	1
06944	Antimony	7440-36-0	4.51	U	4.51	0.834	1
06935	Arsenic	7440-38-2	6.22		4.51	0.788	1
06946	Barium	7440-39-3	107		1.13	0.0372	1
06947	Beryllium	7440-41-7	1.01	J	1.13	0.0755	1
07914	Boron	7440-42-8	3.71	J	11.3	0.946	1
06949	Cadmium	7440-43-9	1.13	U	1.13	0.0856	1
01650	Calcium	7440-70-2	11,800		22.5	3.76	1
06951	Chromium	7440-47-3	28.9		3.38	0.180	1
06952	Cobalt	7440-48-4	7.02		1.13	0.112	1
06953	Copper	7440-50-8	23.8		2.25	0.327	1
01654	Iron	7439-89-6	29,800		45.1	4.08	1
06955	Lead	7439-92-1	8.79		3.38	0.563	1
01656	Lithium	7439-93-2	31.4		4.5	0.38	1
01657	Magnesium	7439-95-4	6,790		11.3	1.88	1
06958	Manganese	7439-96-5	325		1.13	0.0935	1
06960	Molybdenum	7439-98-7	0.349	J	2.25	0.191	1
06961	Nickel	7440-02-0	18.4		2.25	0.146	1
10145	Phosphorus	7723-14-0	199		11.3	3.26	1
01662	Potassium	7440-09-7	2,490		113	9.39	1
01667	Sodium	7440-23-5	1,890		113	18.8	1
06969	Tin	7440-31-5	3.37	J	11.3	0.248	1
06970	Titanium	7440-32-6	1,240		1.13	0.191	1
06971	Vanadium	7440-62-2	50.1		1.13	0.146	1
06972	Zinc	7440-66-6	65.1		4.51	0.225	1
10146	Zirconium	7440-67-7	4.02	J	5.63	0.946	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.130	J	0.451	0.113	2
06142	Silver	7440-22-4	0.0956	J	0.225	0.0293	2
06144	Strontium	7440-24-6	68.8		0.451	0.0766	2
06145	Thallium	7440-28-0	0.320		0.225	0.0338	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0129	J	0.0178	0.0107	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 18 C.	n.a.	9.00		0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	12.1		0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-843-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336148
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 13:30 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84340 SDG#: PH159-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

Sample Description: SL-843-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336148
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 13:30 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84340 SDG#: PH159-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.137	JQ	1.13	0.0613	1
11031	12378-PeCDD	40321-76-4	0.311	J	5.63	0.0386	1
11031	123478-HxCDD	39227-28-6	0.146	JBQ	5.63	0.0286	1
11031	123678-HxCDD	57653-85-7	0.275	JB	5.63	0.0309	1
11031	123789-HxCDD	19408-74-3	0.366	JBQ	5.63	0.0279	1
11031	1234678-HpCDD	35822-46-9	1.18	JB	5.63	0.0244	1
11031	OCDD	3268-87-9	10.6	JB	11.3	0.0255	1
11031	2378-TCDF	51207-31-9	0.149	JQ	1.13	0.0467	1
11031	12378-PeCDF	57117-41-6	0.444	JBQ	5.63	0.0226	1
11031	23478-PeCDF	57117-31-4	0.316	JB	5.63	0.0214	1
11031	123478-HxCDF	70648-26-9	0.222	JB	5.63	0.0220	1
11031	123678-HxCDF	57117-44-9	0.247	JBQ	5.63	0.0213	1
11031	123789-HxCDF	72918-21-9	0.377	JB	5.63	0.0230	1
11031	234678-HxCDF	60851-34-5	0.138	JBQ	5.63	0.0207	1
11031	1234678-HpCDF	67562-39-4	0.253	JBQ	5.63	0.0123	1
11031	1234789-HpCDF	55673-89-7	0.131	JB	5.63	0.0163	1
11031	OCDF	39001-02-0	0.709	JB	11.3	0.0340	1
D/F Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.510				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	65	25 - 164
13C12-12378-PeCDD	65	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	75	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	73	17 - 157
13C12-2378-TCDF	61	24 - 169
13C12-12378-PeCDF	63	24 - 185
13C12-23478-PeCDF	63	21 - 178
13C12-123478-HxCDF	76	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	78	29 - 147
13C12-1234678-HpCDF	83	28 - 143
13C12-1234789-HpCDF	73	26 - 138
13C12-OCDF	70	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

Sample Description: SL-843-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336148
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 13:30 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84340 SDG#: PH159-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-843-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336148
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 13:30 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84340 SDG#: PH159-07

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14022SLC026	01/24/2014 11:56	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14022SLC026	01/23/2014 02:00	David V Hershey Jr	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14016B16A	01/18/2014 02:39	Laura M Krieger	22.01
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201401533622	01/15/2014 19:29	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201401533622	01/15/2014 19:29	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	140210005A	01/23/2014 16:20	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	140210005A	01/22/2014 09:00	David S Schrum	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	140220009A	01/23/2014 18:28	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	140220009A	01/23/2014 02:00	David V Hershey Jr	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	14021002	01/24/2014 06:27	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	14021002	01/21/2014 09:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1
06944	Antimony	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1
06935	Arsenic	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1
06946	Barium	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1
06947	Beryllium	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1
07914	Boron	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1
06949	Cadmium	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1
01650	Calcium	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1
06951	Chromium	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1
06952	Cobalt	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1
06953	Copper	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1
01654	Iron	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1
06955	Lead	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1
01656	Lithium	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1
01657	Magnesium	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1
06958	Manganese	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1
06960	Molybdenum	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1
06961	Nickel	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1
10145	Phosphorus	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1
01662	Potassium	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1
01667	Sodium	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1
06969	Tin	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1
06970	Titanium	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1
06971	Vanadium	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1
06972	Zinc	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-843-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336148
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 13:30 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84340 SDG#: PH159-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	140200637001	01/21/2014 14:34	Maria A Orrs	1
06141	Selenium	SW-846 6020A	1	140200637001B	01/24/2014 06:51	Deborah A Krady	2
06142	Silver	SW-846 6020A	1	140200637001A	01/24/2014 06:51	Deborah A Krady	2
06144	Strontium	SW-846 6020A	1	140200637001A	01/24/2014 06:51	Deborah A Krady	2
06145	Thallium	SW-846 6020A	1	140200637001A	01/24/2014 12:11	Deborah A Krady	2
00159	3a Mercury 7471A	SW-846 7471B	1	140150638001	01/17/2014 11:14	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	140200637001	01/20/2014 22:10	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	140150638001	01/16/2014 12:25	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14016039401B	01/16/2014 09:30	Yolunder Y Bunch	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14022162401B	01/22/2014 22:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-843-SA5B-SB-7.0-8.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336149
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 13:40 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84370 SDG#: PH159-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.9	U	1.9	0.74	1
12969	Acenaphthylene	208-96-8	1.9	U	1.9	0.37	1
12969	Anthracene	120-12-7	1.9	U	1.9	0.37	1
12969	Benzo(a)anthracene	56-55-3	1.4	J	1.9	0.74	1
12969	Benzo(a)pyrene	50-32-8	1.7	J	1.9	0.74	1
12969	Benzo(b)fluoranthene	205-99-2	2.2		1.9	0.74	1
12969	Benzo(e)pyrene	192-97-2	19	U	19	3.7	1
12969	Benzo(g,h,i)perylene	191-24-2	0.74	J	1.9	0.74	1
12969	Benzo(k)fluoranthene	207-08-9	1.3	J	1.9	0.74	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.7	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.7	1
12969	Chrysene	218-01-9	2.3		1.9	0.37	1
12969	Dibenz(a,h)anthracene	53-70-3	1.9	U	1.9	0.74	1
12969	Diethylphthalate	84-66-2	20	U	20	6.7	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.7	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20	U	20	6.7	1
12969	Fluoranthene	206-44-0	2.2		1.9	0.74	1
12969	Fluorene	86-73-7	1.9	U	1.9	0.74	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.9	U	1.9	0.74	1
12969	1-Methylnaphthalene	90-12-0	1.9	U	1.9	0.74	1
12969	2-Methylnaphthalene	91-57-6	1.9	U	1.9	0.74	1
12969	Naphthalene	91-20-3	1.9	U	1.9	0.74	1
12969	N-Nitrosodimethylamine	62-75-9	1.9	U	1.9	0.74	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.7	1
12969	Phenanthrene	85-01-8	1.7	J	1.9	0.74	1
12969	Pyrene	129-00-0	2.9		1.9	0.74	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	23.72
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	37	U	37	11	1
13099	Aroclor 5442	12642-23-8	37	U	37	11	1
13099	Aroclor 5460	11126-42-4	37	U	37	11	1
13099	PCB-1016	12674-11-2	19	U	19	3.7	1
13099	PCB-1221	11104-28-2	19	U	19	5.7	1
13099	PCB-1232	11141-16-5	19	U	19	4.6	1
13099	PCB-1242	53469-21-9	19	U	19	4.6	1
13099	PCB-1248	12672-29-6	14	J	19	3.7	1
13099	PCB-1254	11097-69-1	11	J	19	4.9	1
13099	PCB-1260	11096-82-5	19	U	19	4.3	1
13099	PCB-1262	37324-23-5	19	U	19	3.7	1
13099	PCB-1268	11100-14-4	19	U	19	3.7	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.6	U	5.6	2.2	1
12952	EFH (C15-C20)	n.a.	5.6	U	5.6	2.2	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-843-SA5B-SB-7.0-8.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336149
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 13:40 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84370 SDG#: PH159-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.1	J	5.6	2.2	1
12952	EFH (C30-C40)	n.a.	17		11	4.4	1
12952	EFH (C8-C11)	n.a.	5.6	U	5.6	2.2	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,400		44.1	7.94	1
06944	Antimony	7440-36-0	4.41	U	4.41	0.815	1
06935	Arsenic	7440-38-2	5.42		4.41	0.771	1
06946	Barium	7440-39-3	80.4		1.10	0.0363	1
06947	Beryllium	7440-41-7	0.765	J	1.10	0.0738	1
07914	Boron	7440-42-8	1.10	J	11.0	0.925	1
06949	Cadmium	7440-43-9	1.10	U	1.10	0.0837	1
01650	Calcium	7440-70-2	2,510		22.0	3.68	1
06951	Chromium	7440-47-3	21.9		3.30	0.176	1
06952	Cobalt	7440-48-4	6.53		1.10	0.109	1
06953	Copper	7440-50-8	18.2		2.20	0.319	1
01654	Iron	7439-89-6	24,100		44.1	3.99	1
06955	Lead	7439-92-1	6.99		3.30	0.551	1
01656	Lithium	7439-93-2	30.4		4.4	0.37	1
01657	Magnesium	7439-95-4	4,920		11.0	1.84	1
06958	Manganese	7439-96-5	334		1.10	0.0914	1
06960	Molybdenum	7439-98-7	0.243	J	2.20	0.187	1
06961	Nickel	7440-02-0	14.0		2.20	0.143	1
10145	Phosphorus	7723-14-0	274		11.0	3.18	1
01662	Potassium	7440-09-7	2,010		110	9.19	1
01667	Sodium	7440-23-5	1,130		110	18.4	1
06969	Tin	7440-31-5	3.19	J	11.0	0.242	1
06970	Titanium	7440-32-6	1,070		1.10	0.187	1
06971	Vanadium	7440-62-2	40.7		1.10	0.143	1
06972	Zinc	7440-66-6	58.1		4.41	0.220	1
10146	Zirconium	7440-67-7	3.43	J	5.51	0.925	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.441	U	0.441	0.110	2
06142	Silver	7440-22-4	0.0573	J	0.220	0.0286	2
06144	Strontium	7440-24-6	19.0		0.441	0.0749	2
06145	Thallium	7440-28-0	0.243		0.220	0.0330	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0180		0.0175	0.0105	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 18.7 C.	n.a.	8.78		0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	10.1		0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-843-SA5B-SB-7.0-8.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336149
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 13:40 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84370 SDG#: PH159-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

Sample Description: SL-843-SA5B-SB-7.0-8.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336149
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 13:40 by KL

Submitted: 01/15/2014 10:00
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84370 SDG#: PH159-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.11	U	1.11	0.0546	1
11031	12378-PeCDD	40321-76-4	0.105	JQ	5.56	0.0387	1
11031	123478-HxCDD	39227-28-6	0.0693	JBQ	5.56	0.0302	1
11031	123678-HxCDD	57653-85-7	0.187	JB	5.56	0.0313	1
11031	123789-HxCDD	19408-74-3	0.194	JBQ	5.56	0.0299	1
11031	1234678-HpCDD	35822-46-9	3.30	JB	5.56	0.0291	1
11031	OCDD	3268-87-9	36.6	B	11.1	0.0240	1
11031	2378-TCDF	51207-31-9	0.0741	JQ	1.11	0.0457	1
11031	12378-PeCDF	57117-41-6	0.242	JB	5.56	0.0212	1
11031	23478-PeCDF	57117-31-4	0.185	JBQ	5.56	0.0208	1
11031	123478-HxCDF	70648-26-9	0.161	JB	5.56	0.0245	1
11031	123678-HxCDF	57117-44-9	0.134	JB	5.56	0.0238	1
11031	123789-HxCDF	72918-21-9	0.160	JB	5.56	0.0255	1
11031	234678-HxCDF	60851-34-5	0.130	JB	5.56	0.0235	1
11031	1234678-HpCDF	67562-39-4	0.631	JB	5.56	0.0141	1
11031	1234789-HpCDF	55673-89-7	0.136	JBQ	5.56	0.0175	1
11031	OCDF	39001-02-0	1.46	JB	11.1	0.0324	1
D/F Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.135				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	69	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	79	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	69	24 - 185
13C12-23478-PeCDF	68	21 - 178
13C12-123478-HxCDF	77	26 - 152
13C12-123678-HxCDF	79	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	82	28 - 143
13C12-1234789-HpCDF	75	26 - 138
13C12-OCDF	72	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

Sample Description: SL-843-SA5B-SB-7.0-8.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336149
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 13:40 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84370 SDG#: PH159-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-843-SA5B-SB-7.0-8.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336149
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 13:40 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84370 SDG#: PH159-08

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14022SLC026	01/24/2014 12:28	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14022SLC026	01/23/2014 02:00	David V Hershey Jr	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14016B16A	01/18/2014 03:17	Laura M Krieger	23.72
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201401533622	01/15/2014 19:30	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201401533622	01/15/2014 19:30	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	140210005A	01/23/2014 16:38	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	140210005A	01/22/2014 09:00	David S Schrum	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	140220009A	01/23/2014 19:32	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	140220009A	01/23/2014 02:00	David V Hershey Jr	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	14021002	01/24/2014 14:58	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	14021002	01/21/2014 09:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1
06944	Antimony	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1
06935	Arsenic	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1
06946	Barium	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1
06947	Beryllium	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1
07914	Boron	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1
06949	Cadmium	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1
01650	Calcium	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1
06951	Chromium	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1
06952	Cobalt	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1
06953	Copper	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1
01654	Iron	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1
06955	Lead	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1
01656	Lithium	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1
01657	Magnesium	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1
06958	Manganese	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1
06960	Molybdenum	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1
06961	Nickel	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1
10145	Phosphorus	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1
01662	Potassium	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1
01667	Sodium	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1
06969	Tin	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1
06970	Titanium	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1
06971	Vanadium	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1
06972	Zinc	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-843-SA5B-SB-7.0-8.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7336149
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 13:40 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84370 SDG#: PH159-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	140200637001	01/21/2014 14:38	Maria A Orrs	1
06141	Selenium	SW-846 6020A	1	140200637001B	01/24/2014 06:53	Deborah A Krady	2
06142	Silver	SW-846 6020A	1	140200637001A	01/24/2014 06:53	Deborah A Krady	2
06144	Strontium	SW-846 6020A	1	140200637001A	01/24/2014 06:53	Deborah A Krady	2
06145	Thallium	SW-846 6020A	1	140200637001A	01/24/2014 12:13	Deborah A Krady	2
00159	3a Mercury 7471A	SW-846 7471B	1	140150638001	01/17/2014 11:16	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	140200637001	01/20/2014 22:10	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	140150638001	01/16/2014 12:25	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14016039401B	01/16/2014 09:30	Yolunder Y Bunch	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14022162401B	01/22/2014 22:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: TB-011414 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7336150
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 08:00 by KL

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB114 SDG#: PH159-09TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14016A94A	01/17/2014 14:41	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14016A94A	01/17/2014 14:41	Laura M Krieger	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-011414 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7336151
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 15:00 by PH

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB114 SDG#: PH159-10EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	
12971	Acenaphthene	83-32-9	0.053	U	0.053	0.011	1
12971	Acenaphthylene	208-96-8	0.053	U	0.053	0.011	1
12971	Anthracene	120-12-7	0.053	U	0.053	0.011	1
12971	Benzo(a)anthracene	56-55-3	0.053	U	0.053	0.011	1
12971	Benzo(a)pyrene	50-32-8	0.053	U	0.053	0.011	1
12971	Benzo(b)fluoranthene	205-99-2	0.053	U	0.053	0.011	1
12971	Benzo(e)pyrene	192-97-2	0.053	U	0.053	0.011	1
12971	Benzo(g,h,i)perylene	191-24-2	0.053	U	0.053	0.011	1
12971	Benzo(k)fluoranthene	207-08-9	0.053	U	0.053	0.011	1
12971	Butylbenzylphthalate	85-68-7	1.1	U	1.1	0.053	1
12971	Di-n-butylphthalate	84-74-2	0.17	J	1.1	0.053	1
12971	Chrysene	218-01-9	0.053	U	0.053	0.011	1
12971	Dibenz(a,h)anthracene	53-70-3	0.053	U	0.053	0.011	1
12971	Diethylphthalate	84-66-2	0.44	J	1.1	0.053	1
12971	Dimethylphthalate	131-11-3	1.1	U	1.1	0.053	1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.090	J	1.1	0.053	1
12971	Fluoranthene	206-44-0	0.053	U	0.053	0.011	1
12971	Fluorene	86-73-7	0.053	U	0.053	0.011	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.053	U	0.053	0.011	1
12971	1-Methylnaphthalene	90-12-0	0.053	U	0.053	0.011	1
12971	2-Methylnaphthalene	91-57-6	0.053	U	0.053	0.011	1
12971	Naphthalene	91-20-3	0.053	U	0.053	0.032	1
12971	N-Nitrosodimethylamine	62-75-9	0.053	U	0.053	0.011	1
12971	Di-n-octylphthalate	117-84-0	1.1	U	1.1	0.053	1
12971	Phenanthrene	85-01-8	0.053	U	0.053	0.032	1
12971	Pyrene	129-00-0	0.053	U	0.053	0.011	1

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the result is within the acceptance range allowed by the method, the data is reported.

GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1
Perchlorate	**SW-846 6850 1/2007**		**ug/l**		**ug/l**	**ug/l**	
06386	Perchlorate in Water LC/MS/MS	14797-73-0	1.0	U	1.0	0.20	1
Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	
13092	Aroclor 5432	63496-31-1	0.40	U	0.40	0.080	1
13092	Aroclor 5442	12642-23-8	0.40	U	0.40	0.080	1
13092	Aroclor 5460	11126-42-4	0.40	U	0.40	0.088	1
13092	PCB-1016	12674-11-2	0.40	U	0.40	0.080	1
13092	PCB-1221	11104-28-2	0.40	U	0.40	0.080	1
13092	PCB-1232	11141-16-5	0.40	U	0.40	0.16	1
13092	PCB-1242	53469-21-9	0.40	U	0.40	0.080	1
13092	PCB-1248	12672-29-6	0.40	U	0.40	0.080	1
13092	PCB-1254	11097-69-1	0.40	U	0.40	0.080	1
13092	PCB-1260	11096-82-5	0.40	U	0.40	0.12	1
13092	PCB-1262	37324-23-5	0.40	U	0.40	0.16	1
13092	PCB-1268	11100-14-4	0.40	U	0.40	0.13	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-011414 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7336151
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 15:00 by PH

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB114 SDG#: PH159-10EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**	**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.098 U	0.098	0.049	1
10365	EFH (C15-C20)	n.a.	0.098 U	0.098	0.049	1
10365	EFH (C21-C30)	n.a.	0.098 U	0.098	0.049	1
10365	EFH (C30 - C40)	n.a.	0.49 U	0.49	0.098	1
10365	EFH (C8-C11)	n.a.	0.098 U	0.098	0.049	1
Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400 U	0.400	0.0828	1
07044	Antimony	7440-36-0	0.0400 U	0.0400	0.0053	1
07035	Arsenic	7440-38-2	0.0400 U	0.0400	0.0068	1
07046	Barium	7440-39-3	0.00036 J	0.0100	0.00033	1
07047	Beryllium	7440-41-7	0.0100 U	0.0100	0.00067	1
08014	Boron	7440-42-8	0.100 U	0.100	0.0084	1
07049	Cadmium	7440-43-9	0.0100 U	0.0100	0.00076	1
01750	Calcium	7440-70-2	0.400 U	0.400	0.0334	1
07051	Chromium	7440-47-3	0.0300 U	0.0300	0.0016	1
07052	Cobalt	7440-48-4	0.0100 U	0.0100	0.0013	1
07053	Copper	7440-50-8	0.0200 U	0.0200	0.0027	1
01754	Iron	7439-89-6	0.400 U	0.400	0.0430	1
07055	Lead	7439-92-1	0.0300 U	0.0300	0.0047	1
01756	Lithium	7439-93-2	0.0400 U	0.0400	0.0047	1
01757	Magnesium	7439-95-4	0.200 U	0.200	0.0167	1
07058	Manganese	7439-96-5	0.0100 U	0.0100	0.00083	1
07060	Molybdenum	7439-98-7	0.0200 U	0.0200	0.0017	1
07061	Nickel	7440-02-0	0.0200 U	0.0200	0.0015	1
10143	Phosphorus	7723-14-0	0.200 U	0.200	0.0418	1
01762	Potassium	7440-09-7	1.00 U	1.00	0.0980	1
01767	Sodium	7440-23-5	2.00 U	2.00	0.167	1
07069	Tin	7440-31-5	0.0400 U	0.0400	0.0029	1
07070	Titanium	7440-32-6	0.0200 U	0.0200	0.0017	1
07071	Vanadium	7440-62-2	0.0100 U	0.0100	0.0020	1
07072	Zinc	7440-66-6	0.0400 U	0.0400	0.0020	1
10144	Zirconium	7440-67-7	0.100 U	0.100	0.0084	1
	SW-846 6020A		**mg/l**	**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040 U	0.0040	0.00050	1
06042	Silver	7440-22-4	0.0010 U	0.0010	0.00011	1
06044	Strontium	7440-24-6	0.0020 U	0.0020	0.00034	1
06045	Thallium	7440-28-0	0.0010 U	0.0010	0.00015	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A	7439-97-6	0.00020 U	0.00020	0.000060	1
Wet Chemistry	**SW-846 9040C**		**Std. Units**	**Std. Units**	**Std. Units**	
12152	28b pH (9040B and 9040C)	n.a.	6.4	0.010	0.010	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-011414 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7336151
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 15:00 by PH

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB114 SDG#: PH159-10EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		pg/l		pg/l	pg/l	
10915	2378-TCDD	1746-01-6	2.01	U	2.01	1.03	1
10915	12378-PeCDD	40321-76-4	10.1	U	10.1	0.660	1
10915	123478-HxCDD	39227-28-6	0.537	J	10.1	0.358	1
10915	123678-HxCDD	57653-85-7	0.852	JBQ	10.1	0.379	1
10915	123789-HxCDD	19408-74-3	10.1	U	10.1	0.377	1
10915	1234678-HpCDD	35822-46-9	0.524	JB	10.1	0.456	1
10915	OCDD	3268-87-9	0.900	JB	20.1	0.380	1
10915	2378-TCDF	51207-31-9	2.01	U	2.01	0.514	1
10915	12378-PeCDF	57117-41-6	0.459	JBQ	10.1	0.299	1
10915	23478-PeCDF	57117-31-4	10.1	U	10.1	0.271	1
10915	123478-HxCDF	70648-26-9	0.302	JBQ	10.1	0.233	1
10915	123678-HxCDF	57117-44-9	0.501	JBQ	10.1	0.238	1
10915	123789-HxCDF	72918-21-9	10.1	U	10.1	0.281	1
10915	234678-HxCDF	60851-34-5	0.404	J	10.1	0.242	1
10915	1234678-HpCDF	67562-39-4	0.280	JBQ	10.1	0.162	1
10915	1234789-HpCDF	55673-89-7	0.352	JBQ	10.1	0.204	1
10915	OCDF	39001-02-0	1.27	JBQ	20.1	0.536	1
D/F Toxic Equivalents	**EPA 1613B**		pg/l		pg/l	pg/l	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	0.0995				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	52	25 - 164
13C12-12378-PeCDD	57	25 - 181
13C12-123478-HxCDD	70	32 - 141
13C12-123678-HxCDD	72	28 - 130
13C12-123789-HxCDD	69	28 - 130
13C12-1234678-HpCDD	70	23 - 140
13C12-OCDD	72	17 - 157
13C12-2378-TCDF	62	24 - 169
13C12-12378-PeCDF	65	24 - 185
13C12-23478-PeCDF	65	21 - 178
13C12-123478-HxCDF	81	26 - 152
13C12-123678-HxCDF	82	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	78	29 - 147
13C12-1234678-HpCDF	80	28 - 143
13C12-1234789-HpCDF	73	26 - 138
13C12-OCDF	80	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

Sample Description: EB-011414 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7336151
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 15:00 by PH

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB114 SDG#: PH159-10EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: EB-011414 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7336151
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 15:00 by PH

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB114 SDG#: PH159-10EB*

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14020WAH026	01/24/2014 20:56	Catherine E Bachman	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	14020WAH026	01/21/2014 10:00	Anna E Stager	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14016A94A	01/17/2014 15:07	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14016A94A	01/17/2014 15:07	Laura M Krieger	1
06386	Perchlorate in Water LC/MS/MS	SW-846 6850 1/2007	1	140210001A	01/23/2014 13:19	Richard A Shober	1
13092	21b PCBs and PCTs 8082A	SW-846 8082A	1	140200023A	01/22/2014 15:45	Monica M Souders	1
13093	PCB/PCT Waters Update IV	SW-846 3510C	1	140200023A	01/21/2014 06:15	Roman Kuropatkin	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	140200007A	01/21/2014 16:18	Heather E Williams	1
11203	EFH Waters Extraction	SW-846 3510C	1	140200007A	01/20/2014 12:00	Kelli M Barto	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B	1	14021001	01/22/2014 23:50	Nelson H Risser	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	14021001	01/21/2014 08:20	Robert Brown	1
01743	Aluminum	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1
07044	Antimony	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1
07035	Arsenic	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1
07046	Barium	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1
07047	Beryllium	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1
08014	Boron	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1
07049	Cadmium	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1
01750	Calcium	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1
07051	Chromium	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1
07052	Cobalt	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1
07053	Copper	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1
01754	Iron	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1
07055	Lead	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1
01756	Lithium	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1
01757	Magnesium	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1
07058	Manganese	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1
07060	Molybdenum	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1
07061	Nickel	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1
10143	Phosphorus	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1
01762	Potassium	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1
01767	Sodium	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1
07069	Tin	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1
07070	Titanium	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1
07071	Vanadium	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-011414 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7336151
LL Group # 1446014
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 01/14/2014 15:00 by PH

Submitted: 01/15/2014 10:00
Reported: 01/31/2014 08:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB114 SDG#: PH159-10EB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07072	Zinc	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1
10144	Zirconium	SW-846 6010C	1	140210635002	01/24/2014 03:16	Tara L Snyder	1
06041	Selenium	SW-846 6020A	1	140210639002B	01/24/2014 11:32	Deborah A Krady	1
06042	Silver	SW-846 6020A	1	140210639002A	01/24/2014 11:32	Deborah A Krady	1
06044	Strontium	SW-846 6020A	1	140210639002A	01/24/2014 11:32	Deborah A Krady	1
06045	Thallium	SW-846 6020A	1	140210639002A	01/24/2014 11:32	Deborah A Krady	1
00259	3b Mercury 7470A	SW-846 7470A	1	140155713002	01/16/2014 12:23	Damary Valentin	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	140210635002	01/23/2014 12:04	James L Mertz	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	140210639002	01/23/2014 12:10	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	140155713002	01/16/2014 08:00	John W Yanzuk II	1
12152	28b pH (9040B and 9040C)	SW-846 9040C	1	14016002101A	01/16/2014 15:48	Michele L Graham	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1446014
Reported: 01/31/14 at 08:59 AM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14020WAH026	Sample number(s): 7336151									
Acenaphthene	0.050	U	0.050	0.010	ug/l	100	100	77-118	0	30
Acenaphthylene	0.050	U	0.050	0.010	ug/l	105	105	80-123	0	30
Anthracene	0.050	U	0.050	0.010	ug/l	106	107	78-123	1	30
Benzo(a)anthracene	0.050	U	0.050	0.010	ug/l	110	105	73-127	5	30
Benzo(a)pyrene	0.050	U	0.050	0.010	ug/l	105	107	72-120	2	30
Benzo(b)fluoranthene	0.050	U	0.050	0.010	ug/l	114	115	79-136	1	30
Benzo(e)pyrene	0.050	U	0.050	0.010	ug/l	99	99	70-130	0	30
Benzo(g,h,i)perylene	0.050	U	0.050	0.010	ug/l	110	109	64-130	1	30
Benzo(k)fluoranthene	0.050	U	0.050	0.010	ug/l	107	110	73-131	3	30
Butylbenzylphthalate	1.0	U	1.0	0.050	ug/l	102	104	40-138	2	30
Di-n-butylphthalate	1.0	U	1.0	0.050	ug/l	106	115	64-141	8	30
Chrysene	0.050	U	0.050	0.010	ug/l	104	107	76-125	3	30
Dibenz(a,h)anthracene	0.050	U	0.050	0.010	ug/l	110	111	58-131	1	30
Diethylphthalate	1.0	U	1.0	0.050	ug/l	110	111	64-128	1	30
Dimethylphthalate	1.0	U	1.0	0.050	ug/l	107	108	23-139	1	30
Bis(2-Ethylhexyl)phthalate	0.18	J	1.0	0.050	ug/l	114	113	70-143	0	30
Fluoranthene	0.050	U	0.050	0.010	ug/l	108	108	79-124	0	30
Fluorene	0.050	U	0.050	0.010	ug/l	104	104	74-115	1	30
Indeno(1,2,3-cd)pyrene	0.050	U	0.050	0.010	ug/l	108	108	62-130	0	30
1-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	109	109	80-126	0	30
2-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	107	109	81-124	1	30
Naphthalene	0.050	U	0.050	0.030	ug/l	106	106	75-120	0	30
N-Nitrosodimethylamine	0.050	U	0.050	0.010	ug/l	77	78	36-120	1	30
Di-n-octylphthalate	1.0	U	1.0	0.050	ug/l	103	107	57-145	3	30
Phenanthrene	0.050	U	0.050	0.030	ug/l	105	104	75-120	1	30
Pyrene	0.050	U	0.050	0.010	ug/l	115	109	71-130	6	30
Batch number: 14022SLC026	Sample number(s): 7336139-7336142,7336144-7336149									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	111		77-116		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	96		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	103		80-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	98		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	96		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	98		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	90		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	99		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	100		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	128*		77-123		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	110		78-125		
Chrysene	1.7	U	1.7	0.33	ug/kg	94		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	100		78-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	93		77-130		
Dimethylphthalate	18	U	18.	6.0	ug/kg	102		85-122		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1446014
Reported: 01/31/14 at 08:59 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	132*		79-121		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	103		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	97		81-126		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	100		77-124		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	97		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	99		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	98		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	84		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	123		76-131		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	101		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	110		79-112		
Batch number: 14016A94A	Sample number(s): 7336150-7336151									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	113	112	75-135	1	30
Batch number: 14016B16A	Sample number(s): 7336140-7336142,7336144-7336146,7336148-7336149									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	82		67-119		
Batch number: 140210001A	Sample number(s): 7336151									
Perchlorate in Water LC/MS/MS	1.0	U	1.0	0.20	ug/l	87		85-115		
Batch number: 140200023A	Sample number(s): 7336151									
Aroclor 5432	0.40	U	0.40	0.080	ug/l					
Aroclor 5442	0.40	U	0.40	0.080	ug/l	63	66	35-84	4	30
Aroclor 5460	0.40	U	0.40	0.088	ug/l					
PCB-1016	0.40	U	0.40	0.080	ug/l	78	82	67-117	6	30
PCB-1221	0.40	U	0.40	0.080	ug/l					
PCB-1232	0.40	U	0.40	0.16	ug/l					
PCB-1242	0.40	U	0.40	0.080	ug/l					
PCB-1248	0.40	U	0.40	0.080	ug/l					
PCB-1254	0.40	U	0.40	0.080	ug/l					
PCB-1260	0.40	U	0.40	0.12	ug/l	79	85	67-128	7	30
PCB-1262	0.40	U	0.40	0.16	ug/l					
PCB-1268	0.40	U	0.40	0.13	ug/l					
Batch number: 140210005A	Sample number(s): 7336139-7336142,7336144-7336149									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	88	86	36-106	2	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	96		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	99		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 140200007A	Sample number(s): 7336151									
EFH (C12-C14)	0.10	U	0.10	0.050	mg/l	92	94	67-109	2	30
EFH (C15-C20)	0.10	U	0.10	0.050	mg/l	95	98	71-119	3	30
EFH (C21-C30)	0.10	U	0.10	0.050	mg/l	95	98	75-117	4	30
EFH (C30 - C40)	0.50	U	0.50	0.10	mg/l	81	83	44-134	3	30
EFH (C8-C11)	0.10	U	0.10	0.050	mg/l	76	76	55-86	1	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1446014
Reported: 01/31/14 at 08:59 AM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 140220009A	Sample number(s): 7336139-7336142,7336144-7336149								
EFH (C12-C14)	5.0 U	5.0	2.0	mg/kg	96		76-115		
EFH (C15-C20)	5.0 U	5.0	2.0	mg/kg	98		78-127		
EFH (C21-C30)	5.0 U	5.0	2.0	mg/kg	99		77-127		
EFH (C30-C40)	10 U	10.	4.0	mg/kg	91		44-134		
EFH (C8-C11)	5.0 U	5.0	2.0	mg/kg	80		60-115		
Batch number: 140150638001	Sample number(s): 7336140-7336146,7336148-7336149								
3a Mercury 7471A	0.0167 U	0.0167	0.0100	mg/kg	91		85-120		
Batch number: 140155713002	Sample number(s): 7336151								
3b Mercury 7470A	0.00020 U	0.00020	0.00006 0	mg/l	97	96	90-115	1	20
Batch number: 140160638002	Sample number(s): 7336139,7336147								
3a Mercury 7471A	0.0167 U	0.0167	0.0100	mg/kg	100		85-120		
Batch number: 140200637001	Sample number(s): 7336139-7336149								
Aluminum	40.0 U	40.0	7.21	mg/kg	101		80-120		
Antimony	4.00 U	4.00	0.740	mg/kg	104		80-120		
Arsenic	4.00 U	4.00	0.700	mg/kg	105		80-120		
Barium	1.00 U	1.00	0.0330	mg/kg	100		80-120		
Beryllium	1.00 U	1.00	0.0670	mg/kg	102		80-120		
Boron	10.0 U	10.0	0.840	mg/kg	98		80-120		
Cadmium	1.00 U	1.00	0.0760	mg/kg	102		80-120		
Calcium	20.0 U	20.0	3.34	mg/kg	98		80-120		
Chromium	3.00 U	3.00	0.160	mg/kg	99		80-120		
Cobalt	1.00 U	1.00	0.0990	mg/kg	103		80-120		
Copper	2.00 U	2.00	0.290	mg/kg	105		80-120		
Iron	40.0 U	40.0	3.62	mg/kg	102		80-120		
Lead	3.00 U	3.00	0.500	mg/kg	105		80-120		
Lithium	0.44 J	4.0	0.34	mg/kg	100		80-120		
Magnesium	10.0 U	10.0	1.67	mg/kg	98		80-120		
Manganese	1.00 U	1.00	0.0830	mg/kg	102		80-120		
Molybdenum	2.00 U	2.00	0.170	mg/kg	101		80-120		
Nickel	2.00 U	2.00	0.130	mg/kg	106		80-120		
Phosphorus	10.0 U	10.0	2.89	mg/kg	102		80-120		
Potassium	100 U	100.	8.34	mg/kg	99		80-120		
Sodium	100 U	100.	16.7	mg/kg	99		80-120		
Tin	1.72 J	10.0	0.220	mg/kg	100		80-120		
Titanium	1.00 U	1.00	0.170	mg/kg	101		80-120		
Vanadium	1.00 U	1.00	0.130	mg/kg	103		80-120		
Zinc	1.24 J	4.00	0.200	mg/kg	101		80-120		
Zirconium	5.00 U	5.00	0.840	mg/kg	101		80-120		
Batch number: 140200637001A	Sample number(s): 7336139-7336149								
Silver	0.200 U	0.200	0.0260	mg/kg	117		80-120		
Strontium	0.400 U	0.400	0.0680	mg/kg	111		80-120		
Thallium	0.200 U	0.200	0.0300	mg/kg	103		80-120		
Batch number: 140200637001B	Sample number(s): 7336139-7336149								
Selenium	0.400 U	0.400	0.100	mg/kg	118		80-120		
Batch number: 140210635002	Sample number(s): 7336151								

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1446014
Reported: 01/31/14 at 08:59 AM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Aluminum	0.400 U	0.400	0.0828	mg/l	104	104	90-112	0	20
Antimony	0.0400 U	0.0400	0.0053	mg/l	103	104	88-111	1	20
Arsenic	0.0400 U	0.0400	0.0068	mg/l	109	110	90-113	1	20
Barium	0.0100 U	0.0100	0.00033	mg/l	107	106	90-110	1	20
Beryllium	0.0100 U	0.0100	0.00067	mg/l	101	101	90-111	0	20
Boron	0.100 U	0.100	0.0084	mg/l	100	99	90-110	1	20
Cadmium	0.0100 U	0.0100	0.00076	mg/l	104	105	90-112	1	20
Calcium	0.0510 J	0.400	0.0334	mg/l	101	101	90-112	1	20
Chromium	0.0300 U	0.0300	0.0016	mg/l	104	104	90-110	0	20
Cobalt	0.0100 U	0.0100	0.0013	mg/l	106	107	90-110	1	20
Copper	0.0200 U	0.0200	0.0027	mg/l	110	109	90-112	0	20
Iron	0.400 U	0.400	0.0430	mg/l	102	104	90-112	1	20
Lead	0.0300 U	0.0300	0.0047	mg/l	108	108	88-110	1	20
Lithium	0.0400 U	0.0400	0.0047	mg/l	106	107	90-110	1	20
Magnesium	0.0191 J	0.200	0.0167	mg/l	101	102	89-110	1	20
Manganese	0.0100 U	0.0100	0.00083	mg/l	106	106	90-110	1	20
Molybdenum	0.0200 U	0.0200	0.0017	mg/l	102	104	90-110	1	20
Nickel	0.0200 U	0.0200	0.0015	mg/l	109	110	90-111	1	20
Phosphorus	0.200 U	0.200	0.0418	mg/l	103	103	90-110	1	20
Potassium	1.00 U	1.00	0.0980	mg/l	102	103	90-110	1	20
Sodium	2.00 U	2.00	0.167	mg/l	102	103	87-114	1	20
Tin	0.0400 U	0.0400	0.0029	mg/l	98	100	90-110	1	20
Titanium	0.0200 U	0.0200	0.0017	mg/l	106	106	90-113	0	20
Vanadium	0.0100 U	0.0100	0.0020	mg/l	109	109	90-110	0	20
Zinc	0.0400 U	0.0400	0.0020	mg/l	102	103	90-110	1	20
Zirconium	0.100 U	0.100	0.0084	mg/l	104	105	90-110	1	20
Batch number: 140210639002A	Sample number(s): 7336151								
Silver	0.0010 U	0.0010	0.00011	mg/l	106	103	90-115	3	20
Strontium	0.0020 U	0.0020	0.00034	mg/l	102	101	90-110	0	20
Thallium	0.0010 U	0.0010	0.00015	mg/l	103	110	90-115	7	20
Batch number: 140210639002B	Sample number(s): 7336151								
Selenium	0.0040 U	0.0040	0.00050	mg/l	99	103	90-120	4	20
Batch number: 14016002101A	Sample number(s): 7336151								
28b pH (9040B and 9040C)					100		90-110		
Batch number: 14016039401A	Sample number(s): 7336139								
15a pH by 9045D					100		95-105		
Batch number: 14016039401B	Sample number(s): 7336140,7336143-7336149								
15a pH by 9045D					100		95-105		
Batch number: 14022162401B	Sample number(s): 7336139-7336149								
14a Moisture Content by 160.3					99		80-120		
14a Moisture Content by 160.3					99		80-120		
14a Moisture Content by 160.3					99		80-120		

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14021001	Sample number(s): 7336151								
2378-TCDD	2.00 U	2.00	0.973	pg/l	99		60-150		
12378-PeCDD	0.845 J	10.0	0.706	pg/l	100		60-150		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1446014
Reported: 01/31/14 at 08:59 AM

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
123478-HxCDD	10.0	U	10.0	0.410	pg/l	106		60-150		
123678-HxCDD	0.798	J	10.0	0.447	pg/l	103		60-150		
123789-HxCDD	0.671	J	10.0	0.427	pg/l	103		60-150		
1234678-HpCDD	1.72	J	10.0	0.422	pg/l	107		60-150		
OCDD	3.47	J	20.0	0.392	pg/l	104		60-150		
2378-TCDF	2.00	U	2.00	0.657	pg/l	103		60-150		
12378-PeCDF	0.852	J	10.0	0.396	pg/l	105		60-150		
23478-PeCDF	0.413	J	10.0	0.350	pg/l	107		60-150		
123478-HxCDF	0.849	J	10.0	0.269	pg/l	105		60-150		
123678-HxCDF	0.507	J	10.0	0.286	pg/l	106		60-150		
123789-HxCDF	1.39	J	10.0	0.310	pg/l	107		60-150		
234678-HxCDF	10.0	U	10.0	0.270	pg/l	108		60-150		
1234678-HpCDF	0.834	J	10.0	0.155	pg/l	105		60-150		
1234789-HpCDF	1.32	J	10.0	0.214	pg/l	107		60-150		
OCDF	2.37	J	20.0	0.537	pg/l	102		60-150		
Batch number: 14021002	Sample number(s): 7336139-7336142,7336144-7336149									
2378-TCDD	1.00	U	1.00	0.0767	ng/kg	96		67-158		
12378-PeCDD	5.00	U	5.00	0.0346	ng/kg	95		70-142		
123478-HxCDD	0.0478	J	5.00	0.0241	ng/kg	97		70-164		
123678-HxCDD	0.0467	J	5.00	0.0254	ng/kg	100		76-134		
123789-HxCDD	0.0330	J	5.00	0.0240	ng/kg	98		64-162		
1234678-HpCDD	0.121	J	5.00	0.0212	ng/kg	95		70-140		
OCDD	0.267	J	10.0	0.0249	ng/kg	94		78-144		
2378-TCDF	1.00	U	1.00	0.0581	ng/kg	97		75-158		
12378-PeCDF	0.0637	J	5.00	0.0208	ng/kg	97		80-134		
23478-PeCDF	0.0767	J	5.00	0.0191	ng/kg	98		68-160		
123478-HxCDF	0.0277	J	5.00	0.0214	ng/kg	100		72-134		
123678-HxCDF	0.0458	J	5.00	0.0207	ng/kg	100		84-130		
123789-HxCDF	0.0999	J	5.00	0.0205	ng/kg	100		78-130		
234678-HxCDF	0.0497	J	5.00	0.0202	ng/kg	100		70-156		
1234678-HpCDF	0.0573	J	5.00	0.00928	ng/kg	98		82-122		
1234789-HpCDF	0.0611	J	5.00	0.0116	ng/kg	100		78-138		
OCDF	0.235	J	10.0	0.0344	ng/kg	99		63-170		
Batch number: 14021001	Sample number(s): 7336151									
TEQ WHO 2005 - EDLx0.0	0.233				pg/l					
Batch number: 14021002	Sample number(s): 7336139-7336142,7336144-7336149									
TEQ WHO 2005 - EDLx0.0	0.0318				ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14022SLC026	Sample number(s): 7336139-7336142,7336144-7336149 UNSPK: 7336140								

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1446014
Reported: 01/31/14 at 08:59 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Acenaphthene	102	105	48-127	3	30				
Acenaphthylene	96	99	49-121	4	30				
Anthracene	103	111	52-126	7	30				
Benzo(a)anthracene	95	103	44-143	8	30				
Benzo(a)pyrene	96	102	44-140	6	30				
Benzo(b)fluoranthene	104	112	26-142	6	30				
Benzo(e)pyrene	95	102	70-130	7	30				
Benzo(g,h,i)perylene	48	51	33-141	7	30				
Benzo(k)fluoranthene	97	104	54-142	6	30				
Butylbenzylphthalate	137	151	49-151	10	30				
Di-n-butylphthalate	113	122	52-147	8	30				
Chrysene	64	73	29-148	8	30				
Dibenz(a,h)anthracene	64	68	20-137	6	30				
Diethylphthalate	104	108	43-145	4	30				
Dimethylphthalate	100	105	58-129	4	30				
Bis(2-Ethylhexyl)phthalate	147	155	39-167	5	30				
Fluoranthene	93	105	40-148	11	30				
Fluorene	90	99	51-137	9	30				
Indeno(1,2,3-cd)pyrene	58	63	17-136	7	30				
1-Methylnaphthalene	96	100	50-131	4	30				
2-Methylnaphthalene	99	104	35-152	5	30				
Naphthalene	98	100	31-148	2	30				
N-Nitrosodimethylamine	73	85	48-113	15	30				
Di-n-octylphthalate	173*	175*	52-162	2	30				
Phenanthrene	98	105	29-142	7	30				
Pyrene	133	149*	26-143	10	30				
Batch number: 14016B16A	Sample number(s): 7336140-7336142,7336144-7336146,7336148-7336149 UNSPK: 7336140								
11a TPH by EPA 8015B GRO	75	71	69-123	10	30				
Batch number: 140210001A	Sample number(s): 7336151 UNSPK: 7336151								
Perchlorate in Water LC/MS/MS	90	92	80-120	2	20				
Batch number: 140210005A	Sample number(s): 7336139-7336142,7336144-7336149 UNSPK: 7336140								
PCB-1016	89	100	41-135	12	50				
PCB-1260	89	98	40-134	10	50				
Batch number: 140220009A	Sample number(s): 7336139-7336142,7336144-7336149 UNSPK: 7336140								
EFH (C12-C14)	100	111	49-123	10	20				
EFH (C15-C20)	105	116	49-123	10	20				
EFH (C21-C30)	108	151*	49-123	33*	20				
EFH (C30-C40)	95	194*	49-123	68*	20				
EFH (C8-C11)	82	105	49-123	25*	20				
Batch number: 140150638001	Sample number(s): 7336140-7336146,7336148-7336149 UNSPK: 7336140 BKG: 7336140								
3a Mercury 7471A	108	110	65-135	2	20	0.0166 U	0.0162 U	0 (1)	20
Batch number: 140160638002	Sample number(s): 7336139,7336147 UNSPK: 7336139 BKG: 7336139								
3a Mercury 7471A	103	102	65-135	1	20	0.0217	0.0544	86* (1)	20
Batch number: 140200637001	Sample number(s): 7336139-7336149 UNSPK: 7336140 BKG: 7336140								
Aluminum	1856	1826	75-125	0	20	14,300	14,700	3	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1446014
Reported: 01/31/14 at 08:59 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc		DUP Conc		DUP RPD	Dup RPD Max
	(2)	(2)									
Antimony	69*	68*	75-125	2	20	3.96	U	3.96	U	0 (1)	20
Arsenic	103	104	75-125	1	20	4.00		4.16		4 (1)	20
Barium	104	98	75-125	4	20	89.9		90.7		1	20
Beryllium	101	101	75-125	0	20	0.647	J	0.648	J	0 (1)	20
Boron	94	95	75-125	0	20	1.50	J	1.30	J	14 (1)	20
Cadmium	84	84	75-125	0	20	0.990	U	0.990	U	0 (1)	20
Calcium	177 (2)	150 (2)	75-125	3	20	3,190		3,150		1	20
Chromium	101	106	75-125	2	20	22.1		23.0		4	20
Cobalt	95	92	75-125	3	20	4.87		4.83		1 (1)	20
Copper	106	108	75-125	1	20	15.7		15.9		1	20
Iron	1232 (2)	1208 (2)	75-125	0	20	20,100		20,100		0	20
Lead	98	97	75-125	1	20	5.56		5.53		1 (1)	20
Lithium	100	99	75-125	1	20	24.2		23.4		3	20
Magnesium	238 (2)	236 (2)	75-125	0	20	4,310		4,260		1	20
Manganese	213 (2)	136 (2)	75-125	10	20	289		283		2	20
Molybdenum	93	92	75-125	0	20	1.93	J	2.10		8 (1)	20
Nickel	98	97	75-125	1	20	11.4		11.8		4	20
Phosphorus	85	99	75-125	4	20	313		292		7	20
Potassium	111	124	75-125	3	20	2,520		2,440		3	20
Sodium	97	97	75-125	0	20	159		159		0 (1)	20
Tin	87	87	75-125	1	20	3.00	J	2.88	J	4 (1)	20
Titanium	233 (2)	267 (2)	75-125	3	20	1,100		1,070		3	20
Vanadium	107	107	75-125	0	20	35.3		34.7		2	20
Zinc	93	95	75-125	1	20	50.5		49.5		2	20
Zirconium	96	95	75-125	0	20	3.06	J	3.39	J	10 (1)	20
Batch number: 140200637001A	Sample number(s): 7336139-7336149 UNSPK: 7336140 BKG: 7336140										
Silver	109	112	75-125	3	20	0.0322	J	0.0370	J	14 (1)	20
Strontium	132*	158*	75-125	6	20	22.1		22.8		3	20
Thallium	110	111	75-125	1	20	0.236		0.252		7 (1)	20
Batch number: 140200637001B	Sample number(s): 7336139-7336149 UNSPK: 7336140 BKG: 7336140										
Selenium	111	120	75-125	8	20	0.396	U	0.396	U	0 (1)	20
Batch number: 14016002101A	Sample number(s): 7336151 BKG: P335994										
28b pH (9040B and 9040C)						8.3		8.5		2	3
Batch number: 14016039401A	Sample number(s): 7336139 BKG: P335019										
15a pH by 9045D						7.32		7.28		1	3
Batch number: 14016039401B	Sample number(s): 7336140,7336143-7336149 BKG: 7336140										
15a pH by 9045D						7.42		7.61		3	3
Batch number: 14022162401B	Sample number(s): 7336139-7336149 BKG: 7336140										
14a Moisture Content by 160.3						9.2		9.0		2	20
14a Moisture Content by 160.3						9.2		9.0		2	20
14a Moisture Content by 160.3						9.2		9.0		2	20
Batch number: 14021002	Sample number(s): 7336139-7336142,7336144-7336149 UNSPK: 7336140										
2378-TCDD	94	95	40-135	1	20						

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1446014
Reported: 01/31/14 at 08:59 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
12378-PeCDD	96	98	40-135	1	20				
123478-HxCDD	97	96	40-135	3	20				
123678-HxCDD	98	98	40-135	2	20				
123789-HxCDD	97	97	40-135	3	20				
1234678-HpCDD	96	96	40-135	2	20				
OCDD	97	100	40-135	1	20				
2378-TCDF	95	94	40-135	3	20				
12378-PeCDF	97	97	40-135	2	20				
23478-PeCDF	97	97	40-135	3	20				
123478-HxCDF	101	100	40-135	4	20				
123678-HxCDF	101	100	40-135	4	20				
123789-HxCDF	100	101	40-135	2	20				
234678-HxCDF	100	100	40-135	2	20				
1234678-HpCDF	99	99	40-135	3	20				
1234789-HpCDF	99	100	40-135	1	20				
OCDF	96	96	40-135	2	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7b SVOC SIM EPA 8270D
Batch number: 14020WAH026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7336151	95	97	99
Blank	99	102	104
LCS	100	101	106
LCSD	99	102	106
Limits:	44-137	62-141	51-136

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14022SLC026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7336139	87	90	95
7336140	79	90	94
7336141	83	89	95
7336142	91	93	99
7336144	83	85	92
7336145	82	89	92
7336146	84	86	90
7336147	81	84	91
7336148	85	86	94

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1446014
Reported: 01/31/14 at 08:59 AM

Surrogate Quality Control

7336149	87	89	94
Blank	85	83	89
LCS	89	87	96
MS	83	89	95
MSD	91	93	99
Limits:	54-129	59-125	61-125

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14016A94A

	Trifluorotoluene-F
7336150	86
7336151	84
Blank	86
LCS	90
LCSD	91
Limits:	63-135

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 14016B16A

	Trifluorotoluene-F
7336140	69
7336141	78
7336142	72
7336144	93
7336145	80
7336146	76
7336148	80
7336149	84
Blank	101
LCS	97
MS	78
MSD	72
Limits:	50-142

Analysis Name: 21b PCBs and PCTs 8082A
Batch number: 140200023A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7336151	98	57
Blank	88	75
LCS	83	48
LCSD	82	69
Limits:	45-120	45-120

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 140210005A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7336139	109	95
7336140	106	95

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1446014
Reported: 01/31/14 at 08:59 AM

Surrogate Quality Control

7336141	95	93
7336142	105	101
7336144	106	97
7336145	110	99
7336146	91	86
7336147	125*	64
7336148	109	93
7336149	105	87
Blank	112	104
LCS	106	102
LCSD	106	105
MS	95	93
MSD	105	101
Limits:	45-120	45-120

Analysis Name: 10b TPH by EPA 8015B (DRO)
Batch number: 140200007A

	Chlorobenzene	Orthoterphenyl
7336151	85	82
Blank	91	84
LCS	96	91
LCSD	98	95
Limits:	45-126	69-119

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 140220009A

	Chlorobenzene	Orthoterphenyl
7336139	93	93
7336140	90	108
7336141	101	100
7336142	91	110
7336144	96	96
7336145	97	96
7336146	98	105
7336147	97	115
7336148	93	110
7336149	97	91
Blank	97	96
LCS	100	100
MS	101	100
MSD	91	110
Limits:	37-125	66-123

Analysis Name: 17b Dioxin/Furan by EPA 1613B
Batch number: 14021001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7336151	52	65	81	82	78	78
Blank	54	68	86	87	85	90
OPR	45	64	83	84	82	80

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1446014
Reported: 01/31/14 at 08:59 AM

Surrogate Quality Control

Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7336151	80	73	80	57	70	72
Blank	91	79	84	62	77	79
OPR	83	77	88	56	73	76

Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
7336151	69	70	72	62	65	
Blank	75	79	78	61	69	
OPR	73	72	80	58	61	

Limits:	28-130	23-140	17-157	24-169	24-185	

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 14021002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7336139	58	59	68	69	69	70
7336140	57	58	64	66	65	66
7336141	54	56	64	65	65	72
7336142	57	58	67	69	68	70
7336144	60	60	67	67	68	73
7336145	67	64	75	77	77	78
7336146	59	57	67	70	68	74
7336147	59	60	72	74	73	70
7336148	65	63	76	77	76	78
7336149	73	68	77	79	78	77
Blank	61	63	70	72	72	78
MS	54	56	64	65	65	72
MSD	57	58	67	69	68	70
OPR	56	58	66	68	68	70

Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7336139	74	69	58	61	74	73
7336140	69	64	43	59	71	68
7336141	65	60	53	57	69	70
7336142	72	66	62	59	73	72
7336144	75	67	62	61	73	72
7336145	83	74	68	65	75	77
7336146	76	66	61	58	69	67
7336147	81	68	63	62	74	73
7336148	83	73	70	65	77	75
7336149	82	75	72	69	81	80
Blank	79	70	67	66	77	77
MS	65	60	53	57	69	70
MSD	72	66	62	59	73	72
OPR	75	66	63	60	72	71

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1446014
Reported: 01/31/14 at 08:59 AM

Surrogate Quality Control

Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
7336139	73	74	64	55	58	
7336140	69	68	47	55	57	
7336141	69	64	57	51	55	
7336142	73	72	67	55	57	
7336144	73	74	69	58	60	
7336145	77	77	74	63	64	
7336146	69	69	68	56	57	
7336147	74	72	69	56	60	
7336148	77	77	73	61	63	
7336149	80	79	79	69	69	
Blank	77	79	75	58	63	
MS	69	64	57	51	55	
MSD	73	72	67	55	57	
OPR	72	73	71	53	58	
Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

A-13013

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 1/14/2014 G-1446014

CarrierName: FedEx

AirbillNo: 797634322639 S-733613951

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20140114-02

Cooler #: 2

Lab: Lancaster

Lab Phone: 717-556-7259

Lab Address: 2425 New Holland Pike Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate Confirm 6850/6860	Perchlorate 314.0/331	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
SL-839-SA5B-SB-0.0-0.5	1/14/14 09:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X														
SL-839-SA5B-SB-0.0-0.5	1/14/14 09:00	SO	None	1 - 4 oz glass	10 day													X																						
SL-839-SA5B-SB-4.0-5.0MS	1/14/14 09:15	SO	None	6 - 16 oz glass	10 day	X	X					X		X	X			X								X														MS/MSD
SL-839-SA5B-SB-4.0-5.0MS	1/14/14 09:15	SO	None	6 - Encore	10 day																			X															MS/MSD
SL-1139-SA5B-SB-4.0-5.0	1/14/14 09:10	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X								X														
SL-1139-SA5B-SB-4.0-5.0	1/14/14 09:10	SO	None	2 - Encore	10 day																			X															
SL-839-SA5B-SB-9.0-10.0	1/14/14 10:15	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X								X														
SL-839-SA5B-SB-9.0-10.0	1/14/14 10:15	SO	None	2 - Encore	10 day																			X															
SL-839-SA5B-SB-15.5-16.5	1/14/14 10:30	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X								X														
SL-839-SA5B-SB-15.5-16.5	1/14/14 10:30	SO	None	2 - Encore	10 day																			X															
SL-843-SA5B-SB-0.0-0.5	1/14/14 13:10	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X														
SL-843-SA5B-SB-0.0-0.5	1/14/14 13:10	SO	None	1 - 4 oz glass	10 day													X																					
SL-843-SA5B-SB-4.0-5.0	1/14/14 13:30	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X								X														
SL-843-SA5B-SB-4.0-5.0	1/14/14 13:30	SO	None	2 - Encore	10 day																			X															
SL-843-SA5B-SB-7.0-8.0	1/14/14 13:40	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X								X														
SL-843-SA5B-SB-7.0-8.0	1/14/14 13:40	SO	None	2 - Encore	10 day																			X															
TB-011414	1/14/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																			X															

A-13013
G-1446014
S-7336139-51

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 1/14/2014
CarrierName: FedEx
AirbillNo: 797634322639

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140114-02
Cooler #: 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate Confirm 6850/6860	Perchlorate 314.0/331	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
	1/14/2014	1600									
									CEshlm	1/15/14	1000

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 1/14/2014 A-13013

CarrierName: FedEx G-1446014

AirbillNo: 797634322639 S-7336139-51

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20140114-01

Cooler #: 1

Lab: Lancaster

Lab Phone: 717-556-7259

Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc.Nitrate..Nitrite..TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
EB-011414	1/14/14 15:00	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	X		X																															
EB-011414	1/14/14 15:00	WQ	None	2 - 250 mL Amber	10 day							X			X																								
EB-011414	1/14/14 15:00	WQ	None	2 - 1 L Amber	10 day									X																								
EB-011414	1/14/14 15:00	WQ	None	1 - 40 mL Vial	10 day												X																					
EB-011414	1/14/14 15:00	WQ	None	1 - 250 mL Poly	10 day														X																			
EB-011414	1/14/14 15:00	WQ	HCl	3 - 40 mL Vial	10 day																			X													
EB-011414	1/14/14 15:00	WQ	HCl	2 - 1 L Amber	10 day																				X												

Special Instructions:

Sampler: Pam Hartman

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Dee Myers	01/14/2014	1600									
									CC Smith	1/15/14	1000

(3) CE 1/15/14

COC Rev 3

COC 20140114-01, Page 1 of 1

1 of 1

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 2280

Client: CDM SMITH

G-1446014

SSFL PHASE 3

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	01/15/2014 10:00
Number of Packages:	2	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Trip Blank Present:	Yes
Custody Seal Present:	Yes	Trip Blank Indicated on COC:	Yes
Custody Seal Intact:	Yes	Trip Blank Type:	N/A
Samples Chilled:	Yes	Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes	Air Quality Flow Controllers Present:	N/A
Missing Samples:	No	Flow Controller Quantity:	0
Extra Samples:	No	Air Quality Returns:	N/A
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace at least 6mm:	N/A		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Corey Eshleman (3647) at 11:18 on 01/15/2014

Samples Chilled Details: SSFL PHASE 3

Cooler #	Thermometer ID	Raw Temp (°C)	Corrected Temp (°C)	Thermometer Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT121	0.8	0.8	DT	Wet	Y	Bagged	N
2	DT121	1.0	1.0	DT	Wet	Y	Bagged	N

2425 New Holland Pike
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eurofins | Lancaster Laboratories Environmental

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

May 21, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/08/2014
Group Number: 1473052
SDG: PH172
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
FDG-SL-798-SA5B-SB-0.0-0.5 Soil	7457065

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: FDG-SL-798-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7457065
LL Group # 1473052
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/07/2014 12:29 by WT

Submitted: 05/08/2014 09:20
Reported: 05/21/2014 16:45

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL798 SDG#: PH172-01*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	0.98	J	1.7	0.67	1
12969	Acenaphthylene	208-96-8	29		1.7	0.34	1
12969	Anthracene	120-12-7	29		1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	430		84	34	50
12969	Benzo(a)pyrene	50-32-8	680		84	34	50
12969	Benzo(b)fluoranthene	205-99-2	2,600		84	34	50
12969	Benzo(e)pyrene	192-97-2	1,100		860	170	50
12969	Benzo(g,h,i)perylene	191-24-2	590		84	34	50
12969	Benzo(k)fluoranthene	207-08-9	250		84	34	50
12969	Butylbenzylphthalate	85-68-7	9.0	J	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	2,000		84	17	50
12969	Dibenz(a,h)anthracene	53-70-3	190		1.7	0.67	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	33		18	6.1	1
12969	Fluoranthene	206-44-0	330		1.7	0.67	1
12969	Fluorene	86-73-7	1.7		1.7	0.67	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	770		84	34	50
12969	1-Methylnaphthalene	90-12-0	18		1.7	0.67	1
12969	2-Methylnaphthalene	91-57-6	24		1.7	0.67	1
12969	Naphthalene	91-20-3	19		1.7	0.67	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.67	1
12969	Di-n-octylphthalate	117-84-0	10	J	18	6.1	1
12969	Phenanthrene	85-01-8	160		1.7	0.67	1
12969	Pyrene	129-00-0	280		1.7	0.67	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	30	J	34	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.4	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.2	1
13099	PCB-1242	53469-21-9	17	U	17	4.2	1
13099	PCB-1248	12672-29-6	17	U	17	3.4	1
13099	PCB-1254	11097-69-1	32		17	4.5	1
13099	PCB-1260	11096-82-5	17	U	17	4.0	1
13099	PCB-1262	37324-23-5	17	U	17	3.4	1
13099	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	19		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	38		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.0	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-798-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7457065
LL Group # 1473052
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/07/2014 12:29 by WT

Submitted: 05/08/2014 09:20
Reported: 05/21/2014 16:45

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL798 SDG#: PH172-01*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
13197	EFH C21-C30 w/ SiGel	n.a.	8.5		5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	8.9	J	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	11,800		41.0	7.39	1
06944	Antimony	7440-36-0	4.10	U	4.10	0.759	1
06935	Arsenic	7440-38-2	5.74		4.10	0.718	1
06946	Barium	7440-39-3	70.9		1.03	0.0338	1
06947	Beryllium	7440-41-7	0.473	J	1.03	0.0687	1
07914	Boron	7440-42-8	4.85	J	10.3	0.862	1
06949	Cadmium	7440-43-9	0.450	J	1.03	0.0779	1
01650	Calcium	7440-70-2	3,520		20.5	3.43	1
06951	Chromium	7440-47-3	18.7		3.08	0.164	1
06952	Cobalt	7440-48-4	5.00		1.03	0.102	1
06953	Copper	7440-50-8	17.6		2.05	0.297	1
01654	Iron	7439-89-6	14,700		41.0	3.71	1
06955	Lead	7439-92-1	20.1		3.08	0.513	1
01656	Lithium	7439-93-2	19.0		4.1	0.35	1
01657	Magnesium	7439-95-4	3,150		10.3	1.71	1
06958	Manganese	7439-96-5	380		1.03	0.0851	1
06960	Molybdenum	7439-98-7	0.330	J	2.05	0.174	1
06961	Nickel	7440-02-0	13.6		2.05	0.133	1
10145	Phosphorus	7723-14-0	297		10.3	2.96	1
01662	Potassium	7440-09-7	2,620		103	8.55	1
01667	Sodium	7440-23-5	114		103	17.1	1
06969	Tin	7440-31-5	2.82	J	10.3	0.226	1
06970	Titanium	7440-32-6	875		1.03	0.174	1
06971	Vanadium	7440-62-2	28.4		1.03	0.133	1
06972	Zinc	7440-66-6	157		4.10	0.205	1
10146	Zirconium	7440-67-7	2.32	J	5.13	0.862	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.215	J	0.410	0.103	2
06142	Silver	7440-22-4	1.31		0.205	0.0267	2
06144	Strontium	7440-24-6	25.8		0.410	0.0697	2
06145	Thallium	7440-28-0	0.207		0.205	0.0308	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0732		0.0168	0.0101	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 22.7 C.	n.a.	7.81		0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.5		0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-798-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7457065
LL Group # 1473052
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/07/2014 12:29 by WT

Submitted: 05/08/2014 09:20
Reported: 05/21/2014 16:45

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL798 SDG#: PH172-01*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-798-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7457065
LL Group # 1473052
Account # 13013

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3201 Jermantown Road
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Fairfax VA 22030

SL798 SDG#: PH172-01*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.173	J	0.980	0.0931	1
11031	12378-PeCDD	40321-76-4	4.30	JQ	4.90	0.158	1
11031	123478-HxCDD	39227-28-6	8.61		4.90	0.0983	1
11031	123678-HxCDD	57653-85-7	35.3	B	4.90	0.0988	1
11031	123789-HxCDD	19408-74-3	18.6	B	4.90	0.0952	1
11031	1234678-HpCDD	35822-46-9	891	B	4.90	0.202	1
11031	OCDD	3268-87-9	9,400	EB	9.80	0.120	1
11650	2378-TCDF-Conf	51207-31-9	1.32	C	0.980	0.122	1
11031	12378-PeCDF	57117-41-6	4.15	J	4.90	0.0873	1
11031	23478-PeCDF	57117-31-4	2.16	JB	4.90	0.0844	1
11031	123478-HxCDF	70648-26-9	3.56	JB	4.90	0.109	1
11031	123678-HxCDF	57117-44-9	3.98	JB	4.90	0.105	1
11031	123789-HxCDF	72918-21-9	4.90	U	4.90	0.118	1
11031	234678-HxCDF	60851-34-5	6.01	B	4.90	0.106	1
11031	1234678-HpCDF	67562-39-4	114		4.90	0.0771	1
11031	1234789-HpCDF	55673-89-7	7.70	B	4.90	0.0942	1
11031	OCDF	39001-02-0	337	B	9.80	0.0631	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	21.7				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDF-Conf	68	24 - 169
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	101	17 - 157
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	73	26 - 152
13C12-123678-HxCDF	75	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	85	28 - 143
13C12-1234789-HpCDF	79	26 - 138
13C12-OCDF	78	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-798-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7457065
LL Group # 1473052
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/07/2014 12:29 by WT

Submitted: 05/08/2014 09:20
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Fairfax VA 22030

SL798 SDG#: PH172-01*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-798-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7457065
LL Group # 1473052
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/07/2014 12:29 by WT

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3201 Jermantown Road
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SL798 SDG#: PH172-01*

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14133SLF026	05/20/2014 04:24	Mark A Clark	1
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14133SLF026	05/20/2014 06:31	Mark A Clark	50
10811	BNA Soil Microwave SIM	SW-846 3546	1	14133SLF026	05/13/2014 21:30	Karen L Beyer	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141330006A	05/18/2014 20:56	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141330006A	05/13/2014 14:30	Kelli M Barto	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141330030A	05/14/2014 19:12	Heather E Williams	1
13197	EFH Soil (microwave) w/SiGel	SW-846 8015B modified	1	141330031A	05/19/2014 18:18	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141330031A	05/14/2014 09:05	Katheryne V Sponheimer	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141330030A	05/14/2014 09:05	Katheryne V Sponheimer	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14132002	05/15/2014 02:29	Joseph D Anderson	1
11650	Dioxins/Furans in Solids-Conf	EPA 1613B October 1994	1	14132002	05/15/2014 19:08	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14132002	05/12/2014 13:00	Brett M Weidman	1
01643	Aluminum	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1
06944	Antimony	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1
06935	Arsenic	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1
06946	Barium	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1
06947	Beryllium	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1
07914	Boron	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1
06949	Cadmium	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1
01650	Calcium	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1
06951	Chromium	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1
06952	Cobalt	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1
06953	Copper	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1
01654	Iron	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1
06955	Lead	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1
01656	Lithium	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1
01657	Magnesium	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1
06958	Manganese	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1
06960	Molybdenum	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1
06961	Nickel	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1
10145	Phosphorus	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1
01662	Potassium	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1
01667	Sodium	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1
06969	Tin	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1
06970	Titanium	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-798-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7457065
LL Group # 1473052
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/07/2014 12:29 by WT

Submitted: 05/08/2014 09:20
Reported: 05/21/2014 16:45

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL798 SDG#: PH172-01*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06971	Vanadium	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1
06972	Zinc	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1
10146	Zirconium	SW-846 6010C	1	141340637004	05/15/2014 20:56	Maria A Orrs	1
06141	Selenium	SW-846 6020A	1	141340637004B	05/16/2014 05:13	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141340637004A	05/16/2014 05:13	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141340637004A	05/16/2014 05:13	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141340637004A	05/16/2014 05:13	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141350638001	05/19/2014 08:55	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141340637004	05/15/2014 07:05	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141350638001	05/16/2014 11:14	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14129039401A	05/09/2014 21:10	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14136162401A	05/16/2014 18:04	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473052
Reported: 05/21/14 at 04:45 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14133SLF026	Sample number(s): 7457065									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	106		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	101		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	107		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	113		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	101		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	115		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	91		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	100		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	98		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	116		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	110		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	101		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	104		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	93		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	99		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	121		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	102		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	97		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	102		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	98		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	99		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	98		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	94		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	124		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	104		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	101		80-119		
Batch number: 141330006A	Sample number(s): 7457065									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	83	85	36-106	3	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	94		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	99		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141330030A	Sample number(s): 7457065									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	87		76-115		

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473052
Reported: 05/21/14 at 04:45 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	91		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	91		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	56		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	82		60-115		
Batch number: 141330031A	Sample number(s): 7457065									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	89		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	94		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	95		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	82		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	72		60-115		
Batch number: 141340637004	Sample number(s): 7457065									
Aluminum	40.0	U	40.0	7.21	mg/kg	102		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	106		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	108		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	102		80-120		
Boron	1.15	J	10.0	0.840	mg/kg	101		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	104		80-120		
Calcium	13.6	J	20.0	3.34	mg/kg	103		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	102		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	105		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	106		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	104		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	108		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	104		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	100		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	102		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	107		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	104		80-120		
Potassium	100 U		100.	8.34	mg/kg	101		80-120		
Sodium	100 U		100.	16.7	mg/kg	102		80-120		
Tin	1.35	J	10.0	0.220	mg/kg	101		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	103		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	103		80-120		
Zinc	0.568	J	4.00	0.200	mg/kg	103		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	103		80-120		
Batch number: 141340637004A	Sample number(s): 7457065									
Silver	0.200	U	0.200	0.0260	mg/kg	109		80-120		
Strontium	0.0750	J	0.400	0.0680	mg/kg	100		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	112		80-120		
Batch number: 141340637004B	Sample number(s): 7457065									
Selenium	0.400	U	0.400	0.100	mg/kg	109		80-120		
Batch number: 141350638001	Sample number(s): 7457065									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	91		85-120		
Batch number: 14129039401A	Sample number(s): 7457065									
15a pH by 9045D						99		95-105		

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473052
Reported: 05/21/14 at 04:45 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14136162401A	Sample number(s): 7457065									
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14132002	Sample number(s): 7457065									
2378-TCDD	1.00	U	1.00	0.0424	ng/kg	91		67-158		
12378-PeCDD	5.00	U	5.00	0.0342	ng/kg	93		70-142		
123478-HxCDD	5.00	U	5.00	0.0270	ng/kg	97		70-164		
123678-HxCDD	0.0350	J	5.00	0.0291	ng/kg	94		76-134		
123789-HxCDD	0.0308	J	5.00	0.0293	ng/kg	94		64-162		
1234678-HpCDD	0.0581	J	5.00	0.0254	ng/kg	94		70-140		
OCDD	0.466	J	10.0	0.0310	ng/kg	90		78-144		
2378-TCDF-Conf	1.00	U	1.00	0.0247	ng/kg	106		75-158		
12378-PeCDF	5.00	U	5.00	0.0148	ng/kg	94		80-134		
23478-PeCDF	0.0180	J	5.00	0.0158	ng/kg	96		68-160		
123478-HxCDF	0.0389	J	5.00	0.0206	ng/kg	93		72-134		
123678-HxCDF	0.0250	J	5.00	0.0173	ng/kg	93		84-130		
123789-HxCDF	0.0281	J	5.00	0.0236	ng/kg	95		78-130		
234678-HxCDF	0.0270	J	5.00	0.0184	ng/kg	93		70-156		
1234678-HpCDF	5.00	U	5.00	0.0162	ng/kg	88		82-122		
1234789-HpCDF	0.0343	J	5.00	0.0253	ng/kg	93		78-138		
OCDF	0.146	J	10.0	0.0404	ng/kg	92		63-170		
TEQ WHO 2005 - EDLx0.0	0.00673				ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14133SLF026	Sample number(s): 7457065 UNSPK: P457971								
Acenaphthene	107	119	48-127	11	30				
Acenaphthylene	98	113	60-128	15	30				
Anthracene	95	127*	52-126	28	30				
Benzo(a)anthracene	105	137	44-143	26	30				
Benzo(a)pyrene	96	117	49-137	20	30				
Benzo(b)fluoranthene	106	124	26-142	16	30				
Benzo(e)pyrene	85	96	63-111	12	30				
Benzo(g,h,i)perylene	84	75	33-141	12	30				
Benzo(k)fluoranthene	89	106	49-144	18	30				
Butylbenzylphthalate	97	105	64-156	7	30				
Di-n-butylphthalate	104	122	52-147	16	30				
Chrysene	95	125	43-141	27	30				
Dibenz(a,h)anthracene	90	78	25-145	14	30				
Diethylphthalate	91	102	66-140	12	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473052
Reported: 05/21/14 at 04:45 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Dimethylphthalate	94	116	70-123	21	30				
Bis(2-Ethylhexyl)phthalate	101	166*	48-164	39*	30				
Fluoranthene	93	145	38-153	42*	30				
Fluorene	88	99	57-130	12	30				
Indeno(1,2,3-cd)pyrene	89	82	26-139	8	30				
1-Methylnaphthalene	107	247*	59-139	74*	30				
2-Methylnaphthalene	104	219*	46-147	67*	30				
Naphthalene	90	136	52-136	40*	30				
N-Nitrosodimethylamine	82	91	39-134	11	30				
Di-n-octylphthalate	97	100	52-162	3	30				
Phenanthrene	154*	399*	50-137	82*	30				
Pyrene	94	144*	26-143	40*	30				
Batch number: 141330006A	Sample number(s): 7457065 UNSPK: P457971								
PCB-1016	89	88	41-135	2	50				
PCB-1260	98	97	40-134	0	50				
Batch number: 141330030A	Sample number(s): 7457065 UNSPK: 7457065								
EFH (C12-C14)	97	97	49-123	0	20				
EFH (C15-C20)	120	130*	49-123	8	20				
EFH (C21-C30)	250*	137*	49-123	33*	20				
EFH (C30-C40)	134*	185*	49-123	13	20				
EFH (C8-C11)	83	87	49-123	5	20				
Batch number: 141330031A	Sample number(s): 7457065 UNSPK: 7457065								
EFH C12-C14 w/ SiGel	100	87	49-123	14	20				
EFH C15-C20 w/ SiGel	110	95	49-123	14	20				
EFH C21-C30 w/ SiGel	182*	117	49-123	30*	20				
EFH C30-C40 w/ SiGel	108	149*	49-123	22*	20				
EFH C8-C11 w/ SiGel	80	71	49-123	12	20				
Batch number: 141340637004	Sample number(s): 7457065 UNSPK: P457971 BKG: P457971								
Aluminum	3014 (2)	2861 (2)	75-125	2	20	13,000	12,600	4	20
Antimony	47*	45*	75-125	4	20	3.85 U	3.88 U	0 (1)	20
Arsenic	104	106	75-125	2	20	5.42	5.66	4 (1)	20
Barium	105	106	75-125	1	20	70.9	64.6	9	20
Beryllium	103	104	75-125	0	20	0.543 J	0.519 J	4 (1)	20
Boron	99	101	75-125	2	20	1.68 J	1.41 J	17 (1)	20
Cadmium	95	98	75-125	3	20	0.962 U	0.971 U	0 (1)	20
Calcium	369 (2)	365 (2)	75-125	0	20	3,160	2,780	13	20
Chromium	127*	128*	75-125	1	20	15.8	15.8	0	20
Cobalt	98	94	75-125	4	20	4.73	4.51	5 (1)	20
Copper	120	136*	75-125	9	20	11.2	10.9	3	20
Iron	3011 (2)	3164 (2)	75-125	1	20	18,700	17,800	5	20
Lead	106	115	75-125	5	20	8.38	7.78	7 (1)	20
Lithium	104	104	75-125	0	20	21.6	21.2	2	20
Magnesium	468 (2)	442 (2)	75-125	1	20	3,870	3,750	3	20
Manganese	198 (2)	96 (2)	75-125	14	20	288	226	24*	20
Molybdenum	91	91	75-125	0	20	0.420 J	0.214 J	65* (1)	20
Nickel	97	102	75-125	4	20	12.7	12.0	6	20

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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473052
Reported: 05/21/14 at 04:45 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Phosphorus	125	154*	75-125	7	20	260	258	1	20
Potassium	155*	150*	75-125	1	20	2,210	2,130	4	20
Sodium	98	99	75-125	0	20	84.1 J	80.3 J	5 (1)	20
Tin	85	85	75-125	0	20	2.84 J	2.62 J	8 (1)	20
Titanium	363 (2)	380 (2)	75-125	1	20	923	886	4	20
Vanadium	116	118	75-125	1	20	34.5	33.0	4	20
Zinc	161*	237*	75-125	22*	20	72.0	70.1	3	20
Zirconium	98	97	75-125	1	20	2.95 J	3.20 J	8 (1)	20
Batch number: 141340637004A	Sample number(s): 7457065 UNSPK: P457971 BKG: P457971								
Silver	105	101	75-125	3	20	0.0285 J	0.0266 J	7 (1)	20
Strontium	221*	184*	75-125	7	20	27.2	23.5	15	20
Thallium	116	102	75-125	8	20	0.262	0.225	15 (1)	20
Batch number: 141340637004B	Sample number(s): 7457065 UNSPK: P457971 BKG: P457971								
Selenium	101	111	75-125	9	20	0.144 J	0.159 J	10 (1)	20
Batch number: 141350638001	Sample number(s): 7457065 UNSPK: P457971 BKG: P457971								
3a Mercury 7471A	104	101	65-135	1	20	0.0132 J	0.0148 J	12 (1)	20
Batch number: 14129039401A	Sample number(s): 7457065 BKG: P457971								
15a pH by 9045D						8.17	8.20	0	3
Batch number: 14136162401A	Sample number(s): 7457065 BKG: P457971								
14a Moisture Content by 160.3						5.0	5.0	0	20
Batch number: 14132002	Sample number(s): 7457065 UNSPK: P456161								
2378-TCDD	84	88	40-135	4	20				
12378-PeCDD	90	88	40-135	2	20				
123478-HxCDD	95	94	40-135	1	20				
123678-HxCDD	90	89	40-135	1	20				
123789-HxCDD	88	91	40-135	3	20				
1234678-HpCDD	89	89	40-135	1	20				
OCDD	83	100	40-135	17	20				
2378-TCDF-Conf	94	93	40-135	2	20				
12378-PeCDF	94	93	40-135	1	20				
23478-PeCDF	95	95	40-135	0	20				
123478-HxCDF	94	94	40-135	0	20				
123678-HxCDF	93	94	40-135	1	20				
123789-HxCDF	91	90	40-135	2	20				
234678-HxCDF	94	94	40-135	0	20				
1234678-HpCDF	89	89	40-135	0	20				
1234789-HpCDF	89	88	40-135	2	20				
OCDF	90	91	40-135	1	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473052
Reported: 05/21/14 at 04:45 PM

Surrogate Quality Control

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14133SLF026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7457065	90	106	85
Blank	97	115	91
LCS	97	114	91
MS	87	105	82
MSD	93	104	88
Limits:	59-115	61-118	70-127

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141330006A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7457065	95	105
Blank	101	96
LCS	105	104
LCSD	110	115
MS	97	105
MSD	98	108
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141330030A

	Chlorobenzene	Orthoterphenyl
7457065	80	97
Blank	71	86
LCS	76	91
MS	78	94
MSD	79	97
Limits:	37-125	66-123

Analysis Name: EFH Soil (microwave) w/SiGel
Batch number: 141330031A

	Chlorobenzene	Orthoterphenyl
7457065	70	85
Blank	75	91
LCS	82	99
MS	87	102
MSD	75	87
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 14132002

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7457065	73	78	78	77	80	90

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473052
Reported: 05/21/14 at 04:45 PM

Surrogate Quality Control

Blank	90	96	94	93	90	111
MS	81	87	88	87	91	94
MSD	79	84	87	86	87	97
OPR	80	86	87	91	93	101
Limits:	25-164	25-181	32-141	28-130	28-130	23-140
	13C12-OCDD	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF
7457065	101	75	71	73	75	74
Blank	91	106	94	81	96	88
MS	92	85	77	80	85	82
MSD	87	85	76	76	82	80
OPR	91	96	79	72	87	82
Limits:	17-157	24-185	21-178	26-152	26-123	28-136
	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-2378-TCDF-Conf	
7457065	72	85	79	78	68	
Blank	79	119	86	70	71	
MS	92	103	78	73	75	
MSD	89	100	76	70	74	
OPR	79	145	77	67	74	
Limits:	29-147	28-143	26-138	17-157	24-169	

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

acct# 13013 Qp# 1473052 Sample# 7457065

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/7/2014
CarrierName: FedEx
AirbillNo: 798788635154

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140507-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
FDG-SL-798-SA5B-SB-0.0-0.5	5/7/14 12:29	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X													
FDG-SL-798-SA5B-SB-0.0-0.5	5/7/14 12:29	SO	None	1 - 4 oz glass	10 day													X																					

Special Instructions:

Sampler: Heather Treadway

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Stacy Myers	05/07/14	1500									
										5/8/14	0720

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Sample Administration Receipt Documentation Log

Doc Log ID: 13966

Group Number(s): 1473052

Client: CDM Smith

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/08/2014 9:20
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	0
Custody Seal Present:	Yes	Trip Blank Type:	N/A
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	N/A		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Joseph Gruber (5200) at 11:27 on 05/08/2014

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	3258-IR	4.2	IR	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

May 21, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/09/2014
Group Number: 1473208
SDG: PH173
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
EB-050814 Water	7457968
FDG-SL-511-SA5C-SB-0.0-0.5 Soil	7457969
FDG-SL-511-SA5C-SB-2.0-3.0 Soil	7457970
FDG-SL-749-SA5C-SB-0.0-0.5 Soil	7457971
FDG-SL-749-SA5C-SB-0.0-0.5MS Soil	7457972
FDG-SL-749-SA5C-SB-0.0-0.5MSD Soil	7457973
FDG-SL-749-SA5C-SB-0.0-0.5DUP Soil	7457974
FDG-SL-1049-SA5C-SB-0.0-0.5 Soil	7457975

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: EB-050814 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7457968
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 15:00

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB58- SDG#: PH173-01EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	
12971	Acenaphthene	83-32-9	0.016	J	0.051	0.010	1
12971	Acenaphthylene	208-96-8	0.021	J	0.051	0.010	1
12971	Anthracene	120-12-7	0.051	U	0.051	0.010	1
12971	Benzo(a)anthracene	56-55-3	0.051	U	0.051	0.010	1
12971	Benzo(a)pyrene	50-32-8	0.051	U	0.051	0.010	1
12971	Benzo(b)fluoranthene	205-99-2	0.051	U	0.051	0.010	1
12971	Benzo(e)pyrene	192-97-2	0.051	U	0.051	0.010	1
12971	Benzo(g,h,i)perylene	191-24-2	0.051	U	0.051	0.010	1
12971	Benzo(k)fluoranthene	207-08-9	0.051	U	0.051	0.010	1
12971	Butylbenzylphthalate	85-68-7	1.0	U	1.0	0.051	1
12971	Di-n-butylphthalate	84-74-2	0.16	J	1.0	0.051	1
12971	Chrysene	218-01-9	0.051	U	0.051	0.010	1
12971	Dibenz(a,h)anthracene	53-70-3	0.051	U	0.051	0.010	1
12971	Diethylphthalate	84-66-2	0.48	J	1.0	0.051	1
12971	Dimethylphthalate	131-11-3	1.0	U	1.0	0.051	1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	1.0	U	1.0	0.051	1
12971	Fluoranthene	206-44-0	0.051	U	0.051	0.010	1
12971	Fluorene	86-73-7	0.051	U	0.051	0.010	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.051	U	0.051	0.010	1
12971	1-Methylnaphthalene	90-12-0	0.051	U	0.051	0.010	1
12971	2-Methylnaphthalene	91-57-6	0.051	U	0.051	0.010	1
12971	Naphthalene	91-20-3	0.051	U	0.051	0.031	1
12971	N-Nitrosodimethylamine	62-75-9	0.051	U	0.051	0.010	1
12971	Di-n-octylphthalate	117-84-0	1.0	U	1.0	0.051	1
12971	Phenanthrene	85-01-8	0.051	U	0.051	0.031	1
12971	Pyrene	129-00-0	0.051	U	0.051	0.010	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
bis(2-ethylhexyl)phthalate

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the result is within the acceptance range allowed by the method, the data is reported.

GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1
Perchlorate	**SW-846 6850 1/2007**		**ug/l**		**ug/l**	**ug/l**	
06386	6b Perchlorate (Method 6850)	14797-73-0	1.0	U	1.0	0.20	1
Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	
13092	Aroclor 5432	63496-31-1	0.41	U	0.41	0.081	1
13092	Aroclor 5442	12642-23-8	0.41	U	0.41	0.081	1
13092	Aroclor 5460	11126-42-4	0.41	U	0.41	0.089	1
13092	PCB-1016	12674-11-2	0.41	U	0.41	0.081	1
13092	PCB-1221	11104-28-2	0.41	U	0.41	0.081	1
13092	PCB-1232	11141-16-5	0.41	U	0.41	0.16	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-050814 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7457968
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 15:00

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB58- SDG#: PH173-01EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	
13092	PCB-1242	53469-21-9	0.41	U	0.41	0.081	1
13092	PCB-1248	12672-29-6	0.41	U	0.41	0.081	1
13092	PCB-1254	11097-69-1	0.41	U	0.41	0.081	1
13092	PCB-1260	11096-82-5	0.41	U	0.41	0.12	1
13092	PCB-1262	37324-23-5	0.41	U	0.41	0.16	1
13092	PCB-1268	11100-14-4	0.41	U	0.41	0.13	1
	The recovery for a target analyte(s) and the surrogate in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: Sufficient sample was not available to repeat the analysis.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**		**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.098	U	0.098	0.049	1
10365	EFH (C15-C20)	n.a.	0.098	U	0.098	0.049	1
10365	EFH (C21-C30)	n.a.	0.098	U	0.098	0.049	1
10365	EFH (C30 - C40)	n.a.	0.49	U	0.49	0.098	1
10365	EFH (C8-C11)	n.a.	0.098	U	0.098	0.049	1
13205	EFH C12-C14 w/ SiGel	n.a.	0.098	U	0.098	0.049	1
13205	EFH C15-C20 w/ SiGel	n.a.	0.098	U	0.098	0.049	1
13205	EFH C21-C30 w/ SiGel	n.a.	0.098	U	0.098	0.049	1
13205	EFH C30-C40 w/ SiGel	n.a.	0.49	U	0.49	0.098	1
13205	EFH C8-C11 w/ SiGel	n.a.	0.098	U	0.098	0.049	1
	The reverse surrogate, capric acid, is present at <1%.						
Metals	**SW-846 6010C**		**mg/l**		**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400	U	0.400	0.0828	1
07044	Antimony	7440-36-0	0.0400	U	0.0400	0.0053	1
07035	Arsenic	7440-38-2	0.0400	U	0.0400	0.0068	1
07046	Barium	7440-39-3	0.0100	U	0.0100	0.00033	1
07047	Beryllium	7440-41-7	0.0100	U	0.0100	0.00067	1
08014	Boron	7440-42-8	0.0084	J	0.100	0.0084	1
07049	Cadmium	7440-43-9	0.0100	U	0.0100	0.00076	1
01750	Calcium	7440-70-2	0.400	U	0.400	0.0334	1
07051	Chromium	7440-47-3	0.0300	U	0.0300	0.0016	1
07052	Cobalt	7440-48-4	0.0100	U	0.0100	0.0013	1
07053	Copper	7440-50-8	0.0200	U	0.0200	0.0027	1
01754	Iron	7439-89-6	0.400	U	0.400	0.0430	1
07055	Lead	7439-92-1	0.0300	U	0.0300	0.0047	1
01756	Lithium	7439-93-2	0.0400	U	0.0400	0.0047	1
01757	Magnesium	7439-95-4	0.200	U	0.200	0.0167	1
07058	Manganese	7439-96-5	0.0013	J	0.0100	0.00083	1
07060	Molybdenum	7439-98-7	0.0200	U	0.0200	0.0017	1
07061	Nickel	7440-02-0	0.0200	U	0.0200	0.0015	1
10143	Phosphorus	7723-14-0	0.200	U	0.200	0.0418	1
01762	Potassium	7440-09-7	1.00	U	1.00	0.0980	1
01767	Sodium	7440-23-5	2.00	U	2.00	0.167	1
07069	Tin	7440-31-5	0.0400	U	0.0400	0.0029	1
07070	Titanium	7440-32-6	0.0200	U	0.0200	0.0017	1
07071	Vanadium	7440-62-2	0.0100	U	0.0100	0.0020	1
07072	Zinc	7440-66-6	0.0031	J	0.0400	0.0020	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-050814 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7457968
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 15:00

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB58- SDG#: PH173-01EB

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Metals		**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	
10144	Zirconium		7440-67-7	0.100 U	0.100	0.0084	1
		SW-846 6020A		**mg/l**	**mg/l**	**mg/l**	
06041	Selenium		7782-49-2	0.0040 U	0.0040	0.00050	1
06042	Silver		7440-22-4	0.0010 U	0.0010	0.00011	1
06044	Strontium		7440-24-6	0.0020 U	0.0020	0.00034	1
06045	Thallium		7440-28-0	0.0010 U	0.0010	0.00015	1
		SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A		7439-97-6	0.00020 U	0.00020	0.000060	1
Wet Chemistry		**SW-846 9040C**		**Std. Units**	**Std. Units**	**Std. Units**	
12152	28b pH (9040B and 9040C)		n.a.	5.9	0.010	0.010	1
	The sample was analyzed outside of the project-required holding time of 48 hours.						

*=This limit was used in the evaluation of the final result

Sample Description: EB-050814 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7457968
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 15:00

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB58- SDG#: PH173-01EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	
10915	2378-TCDD	1746-01-6	1.94	U	1.94	0.241	1
10915	12378-PeCDD	40321-76-4	9.70	U	9.70	0.178	1
10915	123478-HxCDD	39227-28-6	0.146	JQ	9.70	0.142	1
10915	123678-HxCDD	57653-85-7	9.70	U	9.70	0.154	1
10915	123789-HxCDD	19408-74-3	9.70	U	9.70	0.144	1
10915	1234678-HpCDD	35822-46-9	0.216	JBQ	9.70	0.0954	1
10915	OCDD	3268-87-9	1.06	JBQ	19.4	0.132	1
10915	2378-TCDF	51207-31-9	1.94	U	1.94	0.159	1
10915	12378-PeCDF	57117-41-6	0.312	JBQ	9.70	0.0880	1
10915	23478-PeCDF	57117-31-4	9.70	U	9.70	0.0788	1
10915	123478-HxCDF	70648-26-9	0.131	JBQ	9.70	0.0872	1
10915	123678-HxCDF	57117-44-9	0.146	JBQ	9.70	0.0839	1
10915	123789-HxCDF	72918-21-9	9.70	U	9.70	0.0798	1
10915	234678-HxCDF	60851-34-5	0.114	JQ	9.70	0.0799	1
10915	1234678-HpCDF	67562-39-4	0.224	JB	9.70	0.0496	1
10915	1234789-HpCDF	55673-89-7	0.205	JB	9.70	0.0554	1
10915	OCDF	39001-02-0	0.824	JB	19.4	0.134	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	0.00454				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	83	25 - 164
13C12-12378-PeCDD	89	25 - 181
13C12-123478-HxCDD	95	32 - 141
13C12-123678-HxCDD	95	28 - 130
13C12-123789-HxCDD	94	28 - 130
13C12-1234678-HpCDD	98	23 - 140
13C12-OCDD	97	17 - 157
13C12-2378-TCDF	87	24 - 169
13C12-12378-PeCDF	96	24 - 185
13C12-23478-PeCDF	95	21 - 178
13C12-123478-HxCDF	103	26 - 152
13C12-123678-HxCDF	102	26 - 123
13C12-234678-HxCDF	102	28 - 136
13C12-123789-HxCDF	116	29 - 147
13C12-1234678-HpCDF	105	28 - 143
13C12-1234789-HpCDF	106	26 - 138
13C12-OCDF	107	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: EB-050814 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7457968
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 15:00

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB58- SDG#: PH173-01EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: EB-050814 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7457968
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 15:00

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB58- SDG#: PH173-01EB

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14134WAE026	05/20/2014 15:03	Chad A Moline	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	14134WAE026	05/14/2014 22:00	Elaine F Stoltzfus	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14132A94A	05/13/2014 13:32	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14132A94A	05/13/2014 13:32	Laura M Krieger	1
06386	6b Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141320020A	05/16/2014 18:19	Richard A Shober	1
13092	21b PCBs and PCTs 8082A	SW-846 8082A	1	141340038A	05/19/2014 00:38	Monica M Souders	1
13093	PCB/PCT Waters Update IV	SW-846 3510C	1	141340038A	05/15/2014 16:00	William H Saadeh	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141330017A	05/14/2014 19:55	Heather E Williams	1
13205	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141330035A	05/19/2014 17:14	Heather E Williams	1
13212	EFH Water Ext. w/SiGel	SW-846 3510C	1	141330035A	05/14/2014 06:30	Kerrie A Freeburn	1
11203	EFH Waters Extraction	SW-846 3510C	1	141330017A	05/14/2014 06:30	Kerrie A Freeburn	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14133003	05/15/2014 07:48	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B October 1994	1	14133003	05/13/2014 11:15	Robert Brown	1
01743	Aluminum	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1
07044	Antimony	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1
07035	Arsenic	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1
07046	Barium	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1
07047	Beryllium	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1
08014	Boron	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1
07049	Cadmium	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1
01750	Calcium	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1
07051	Chromium	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1
07052	Cobalt	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1
07053	Copper	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1
01754	Iron	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1
07055	Lead	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1
01756	Lithium	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1
01757	Magnesium	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1
07058	Manganese	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1
07060	Molybdenum	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1
07061	Nickel	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1
10143	Phosphorus	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1
01762	Potassium	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1
01767	Sodium	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1
07069	Tin	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-050814 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7457968
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 15:00

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB58- SDG#: PH173-01EB

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07070	Titanium	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1
07071	Vanadium	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1
07072	Zinc	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1
10144	Zirconium	SW-846 6010C	1	141350635001	05/16/2014 17:38	Maria A Orrs	1
06041	Selenium	SW-846 6020A	1	141350639001B	05/16/2014 19:34	John P Hook	1
06042	Silver	SW-846 6020A	1	141350639001A	05/16/2014 19:34	John P Hook	1
06044	Strontium	SW-846 6020A	1	141350639001A	05/16/2014 19:34	John P Hook	1
06045	Thallium	SW-846 6020A	1	141350639001A	05/16/2014 19:34	John P Hook	1
00259	3b Mercury 7470A	SW-846 7470A	1	141355713005	05/19/2014 08:16	Damary Valentin	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	141350635001	05/16/2014 10:00	Micaela L Dishong	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	141350639001	05/16/2014 09:15	Micaela L Dishong	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	141355713005	05/16/2014 11:49	Micaela L Dishong	1
12152	28b pH (9040B and 9040C)	SW-846 9040C	1	14132003101A	05/12/2014 15:21	Michele L Graham	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-511-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457969
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 09:40 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51100 SDG#: PH173-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	3.0		1.8	0.72	1
12969	Acenaphthylene	208-96-8	2.0		1.8	0.36	1
12969	Anthracene	120-12-7	8.5		1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	10		1.8	0.72	1
12969	Benzo(a)pyrene	50-32-8	9.1		1.8	0.72	1
12969	Benzo(b)fluoranthene	205-99-2	14		1.8	0.72	1
12969	Benzo(e)pyrene	192-97-2	13	J	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	4.6		1.8	0.72	1
12969	Benzo(k)fluoranthene	207-08-9	5.7		1.8	0.72	1
12969	Butylbenzylphthalate	85-68-7	11	J	19	6.5	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.5	1
12969	Chrysene	218-01-9	14		1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.9		1.8	0.72	1
12969	Diethylphthalate	84-66-2	19	U	19	6.5	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.5	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	25		19	6.5	1
12969	Fluoranthene	206-44-0	18		1.8	0.72	1
12969	Fluorene	86-73-7	3.2		1.8	0.72	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	3.0		1.8	0.72	1
12969	1-Methylnaphthalene	90-12-0	62		1.8	0.72	1
12969	2-Methylnaphthalene	91-57-6	69		1.8	0.72	1
12969	Naphthalene	91-20-3	17		1.8	0.72	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.72	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.5	1
12969	Phenanthrene	85-01-8	75		1.8	0.72	1
12969	Pyrene	129-00-0	21		1.8	0.72	1
Perchlorate	**SW-846 6850 1/2007**		**ug/kg**		**ug/kg**	**ug/kg**	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.4	U	5.4	2.3	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	19	J	36	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.6	1
13099	PCB-1221	11104-28-2	18	U	18	5.5	1
13099	PCB-1232	11141-16-5	18	U	18	4.4	1
13099	PCB-1242	53469-21-9	18	U	18	4.4	1
13099	PCB-1248	12672-29-6	18	U	18	3.6	1
13099	PCB-1254	11097-69-1	11	J	18	4.7	1
13099	PCB-1260	11096-82-5	11	J	18	4.2	1
13099	PCB-1262	37324-23-5	18	U	18	3.6	1
13099	PCB-1268	11100-14-4	18	U	18	3.6	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	17,200		42.3	7.63	1
06944	Antimony	7440-36-0	4.23	U	4.23	0.783	1
06935	Arsenic	7440-38-2	7.07		4.23	0.740	1
06946	Barium	7440-39-3	108		1.06	0.0349	1
06947	Beryllium	7440-41-7	0.814	J	1.06	0.0709	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-511-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457969
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 09:40 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51100 SDG#: PH173-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
07914	Boron	7440-42-8	3.72	J	10.6	0.888	1
06949	Cadmium	7440-43-9	0.403	J	1.06	0.0804	1
01650	Calcium	7440-70-2	38,400		21.2	3.53	1
06951	Chromium	7440-47-3	21.7		3.17	0.169	1
06952	Cobalt	7440-48-4	7.39		1.06	0.105	1
06953	Copper	7440-50-8	25.5		2.12	0.307	1
01654	Iron	7439-89-6	23,700		42.3	3.83	1
06955	Lead	7439-92-1	18.4		3.17	0.529	1
01656	Lithium	7439-93-2	22.2		4.2	0.36	1
01657	Magnesium	7439-95-4	4,160		10.6	1.77	1
06958	Manganese	7439-96-5	387		1.06	0.0878	1
06960	Molybdenum	7439-98-7	0.399	J	2.12	0.180	1
06961	Nickel	7440-02-0	16.1		2.12	0.137	1
10145	Phosphorus	7723-14-0	373		10.6	3.06	1
01662	Potassium	7440-09-7	2,630		106	8.82	1
01667	Sodium	7440-23-5	95.9	J	106	17.7	1
06969	Tin	7440-31-5	3.04	J	10.6	0.233	1
06970	Titanium	7440-32-6	907		1.06	0.180	1
06971	Vanadium	7440-62-2	47.4		1.06	0.137	1
06972	Zinc	7440-66-6	178		4.23	0.212	1
10146	Zirconium	7440-67-7	3.76	J	5.29	0.888	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.270	J	0.423	0.106	2
06142	Silver	7440-22-4	0.137	J	0.212	0.0275	2
06144	Strontium	7440-24-6	58.4		0.423	0.0719	2
06145	Thallium	7440-28-0	0.250		0.212	0.0317	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0542		0.0177	0.0106	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.97		0.0100	0.0100	1
	The pH was measured in water at 22.9 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	7.3		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-511-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457969
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 09:40 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51100 SDG#: PH173-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.52 B	1.06	0.201	1
11031	12378-PeCDD	40321-76-4	11.8 B	5.30	0.278	1
11031	123478-HxCDD	39227-28-6	26.0	5.30	0.153	1
11031	123678-HxCDD	57653-85-7	126 B	5.30	0.153	1
11031	123789-HxCDD	19408-74-3	52.2 B	5.30	0.149	1
11031	1234678-HpCDD	35822-46-9	2,670 EB	5.30	0.283	1
11031	OCDD	3268-87-9	26,100 EB	10.6	0.171	1
11031	2378-TCDF	51207-31-9	0.630 J	1.06	0.146	1
11031	12378-PeCDF	57117-41-6	1.75 JB	5.30	0.0897	1
11031	23478-PeCDF	57117-31-4	3.07 JB	5.30	0.0814	1
11031	123478-HxCDF	70648-26-9	6.99	5.30	0.133	1
11031	123678-HxCDF	57117-44-9	10.1	5.30	0.136	1
11031	123789-HxCDF	72918-21-9	5.30 U	5.30	0.129	1
11031	234678-HxCDF	60851-34-5	21.7	5.30	0.129	1
11031	1234678-HpCDF	67562-39-4	282 B	5.30	0.110	1
11031	1234789-HpCDF	55673-89-7	25.5 B	5.30	0.140	1
11031	OCDF	39001-02-0	584 B	10.6	0.0757	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	76.6			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	81	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	94	23 - 140
13C12-OCDD	110	17 - 157
13C12-2378-TCDF	79	24 - 169
13C12-12378-PeCDF	80	24 - 185
13C12-23478-PeCDF	80	21 - 178
13C12-123478-HxCDF	80	26 - 152
13C12-123678-HxCDF	79	26 - 123

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-511-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457969
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 09:40 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51100 SDG#: PH173-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Labeled Compounds	%Rec	Windows
13C12-234678-HxCDF	82	28 - 136
13C12-123789-HxCDF	92	29 - 147
13C12-1234678-HpCDF	84	28 - 143
13C12-1234789-HpCDF	76	26 - 138
13C12-OCDF	71	17 - 157

Dioxins/Furans Data Qualifiers:

B *Detected in Method Blank*
U *Undetected*
J *Estimated concentration between Estimated Detection Limit and Minimum Level*
E *Exceeds calibration range*
C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-511-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457969
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 09:40 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51100 SDG#: PH173-02

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14133SLF026	05/20/2014 07:34	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14133SLF026	05/13/2014 21:30	Karen L Beyer	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141360001A	05/16/2014 15:08	Richard A Shober	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141330006A	05/18/2014 21:15	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141330006A	05/13/2014 14:30	Kelli M Barto	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	2	141360001A	05/16/2014 08:10	Maria Davenport	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14134003	05/16/2014 01:13	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14134003	05/14/2014 13:40	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
06944	Antimony	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
06935	Arsenic	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
06946	Barium	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
06947	Beryllium	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
07914	Boron	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
06949	Cadmium	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
01650	Calcium	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
06951	Chromium	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
06952	Cobalt	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
06953	Copper	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
01654	Iron	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
06955	Lead	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
01656	Lithium	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
01657	Magnesium	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
06958	Manganese	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
06960	Molybdenum	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
06961	Nickel	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
10145	Phosphorus	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
01662	Potassium	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
01667	Sodium	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
06969	Tin	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
06970	Titanium	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
06971	Vanadium	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
06972	Zinc	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
10146	Zirconium	SW-846 6010C	1	141340637004	05/15/2014 21:00	Maria A Orrs	1
06141	Selenium	SW-846 6020A	1	141340637004B	05/16/2014 05:15	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141340637004A	05/16/2014 05:15	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141340637004A	05/16/2014 05:15	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141340637004A	05/16/2014 05:15	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-511-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457969
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 09:40 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51100 SDG#: PH173-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	141350638001	05/19/2014 08:57	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141340637004	05/15/2014 07:05	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141350638001	05/16/2014 11:14	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14129039401A	05/09/2014 21:10	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14136162401A	05/16/2014 18:04	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-511-SA5C-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457970
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 11:05 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51123 SDG#: PH173-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/kg		ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.4	J	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	2.0		1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	3.6		1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	5.8		1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	6.7	J	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	2.1		1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	2.4		1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	5.9		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.0	J	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	12	J	19	6.2	1
12969	Fluoranthene	206-44-0	2.1		1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.88	J	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	2.8		1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	2.4		1.7	0.69	1
12969	Naphthalene	91-20-3	0.69	J	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	11		1.7	0.69	1
12969	Pyrene	129-00-0	3.0		1.7	0.69	1
Perchlorate	**SW-846 6850 1/2007**		ug/kg		ug/kg	ug/kg	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.2	U	5.2	2.2	1
Pesticides/PCBs	**SW-846 8082A**		ug/kg		ug/kg	ug/kg	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1
Metals	**SW-846 6010C**		mg/kg		mg/kg	mg/kg	
01643	Aluminum	7429-90-5	8,420		40.8	7.36	1
06944	Antimony	7440-36-0	4.08	U	4.08	0.755	1
06935	Arsenic	7440-38-2	4.58		4.08	0.714	1
06946	Barium	7440-39-3	61.1		1.02	0.0337	1
06947	Beryllium	7440-41-7	0.400	J	1.02	0.0684	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-511-SA5C-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457970
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 11:05 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51123 SDG#: PH173-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
07914	Boron	7440-42-8	1.16	J	10.2	0.857	1
06949	Cadmium	7440-43-9	0.247	J	1.02	0.0775	1
01650	Calcium	7440-70-2	17,600		20.4	3.41	1
06951	Chromium	7440-47-3	11.9		3.06	0.163	1
06952	Cobalt	7440-48-4	7.57		1.02	0.101	1
06953	Copper	7440-50-8	10.2		2.04	0.296	1
01654	Iron	7439-89-6	12,400		40.8	3.69	1
06955	Lead	7439-92-1	13.0		3.06	0.510	1
01656	Lithium	7439-93-2	11.3		4.1	0.35	1
01657	Magnesium	7439-95-4	3,350		10.2	1.70	1
06958	Manganese	7439-96-5	377		1.02	0.0847	1
06960	Molybdenum	7439-98-7	0.209	J	2.04	0.173	1
06961	Nickel	7440-02-0	10.8		2.04	0.133	1
10145	Phosphorus	7723-14-0	210		10.2	2.95	1
01662	Potassium	7440-09-7	1,290		102	8.51	1
01667	Sodium	7440-23-5	64.9	J	102	17.0	1
06969	Tin	7440-31-5	2.38	J	10.2	0.224	1
06970	Titanium	7440-32-6	535		1.02	0.173	1
06971	Vanadium	7440-62-2	27.3		1.02	0.133	1
06972	Zinc	7440-66-6	90.6		4.08	0.204	1
10146	Zirconium	7440-67-7	2.15	J	5.10	0.857	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.127	J	0.408	0.102	2
06142	Silver	7440-22-4	0.0375	J	0.204	0.0265	2
06144	Strontium	7440-24-6	26.7		0.408	0.0694	2
06145	Thallium	7440-28-0	0.126	J	0.204	0.0306	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0170		0.0167	0.0100	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.93		0.0100	0.0100	1
	The pH was measured in water at 23.2 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.9		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

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Sample Description: FDG-SL-511-SA5C-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457970
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

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3201 Jermantown Road
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51123 SDG#: PH173-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.353 JBQ	1.01	0.127	1
11031	12378-PeCDD	40321-76-4	4.52 JB	5.04	0.236	1
11031	123478-HxCDD	39227-28-6	10.7	5.04	0.123	1
11031	123678-HxCDD	57653-85-7	54.7 B	5.04	0.123	1
11031	123789-HxCDD	19408-74-3	21.9 B	5.04	0.125	1
11031	1234678-HpCDD	35822-46-9	1,210 B	5.04	0.228	1
11031	OCDD	3268-87-9	10,200 EB	10.1	0.138	1
11031	2378-TCDF	51207-31-9	0.264 J	1.01	0.101	1
11031	12378-PeCDF	57117-41-6	0.761 JB	5.04	0.0713	1
11031	23478-PeCDF	57117-31-4	1.50 JB	5.04	0.0672	1
11031	123478-HxCDF	70648-26-9	3.42 J	5.04	0.103	1
11031	123678-HxCDF	57117-44-9	4.44 J	5.04	0.0971	1
11031	123789-HxCDF	72918-21-9	5.04 U	5.04	0.0948	1
11031	234678-HxCDF	60851-34-5	9.77	5.04	0.0970	1
11031	1234678-HpCDF	67562-39-4	137 B	5.04	0.0789	1
11031	1234789-HpCDF	55673-89-7	11.7 B	5.04	0.0850	1
11031	OCDF	39001-02-0	257 B	10.1	0.0625	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	32.2			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	83	25 - 164
13C12-12378-PeCDD	88	25 - 181
13C12-123478-HxCDD	88	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	95	23 - 140
13C12-OCDD	103	17 - 157
13C12-2378-TCDF	81	24 - 169
13C12-12378-PeCDF	82	24 - 185
13C12-23478-PeCDF	81	21 - 178

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-511-SA5C-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457970
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Account # 13013

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51123 SDG#: PH173-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Labeled Compounds	%Rec	Windows
13C12-123478-HxCDF	82	26 - 152
13C12-123678-HxCDF	83	26 - 123
13C12-234678-HxCDF	84	28 - 136
13C12-123789-HxCDF	94	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	93	26 - 138
13C12-OCDF	81	17 - 157

Dioxins/Furans Data Qualifiers:

B *Detected in Method Blank*
U *Undetected*
J *Estimated concentration between Estimated Detection Limit and Minimum Level*
E *Exceeds calibration range*
C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-511-SA5C-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457970
LL Group # 1473208
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51123 SDG#: PH173-03

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14133SLF026	05/20/2014 08:06	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14133SLF026	05/13/2014 21:30	Karen L Beyer	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141360001A	05/16/2014 15:21	Richard A Shober	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141330006A	05/18/2014 21:33	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141330006A	05/13/2014 14:30	Kelli M Barto	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	2	141360001A	05/16/2014 08:10	Maria Davenport	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14134003	05/16/2014 02:10	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14134003	05/14/2014 13:40	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
06944	Antimony	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
06935	Arsenic	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
06946	Barium	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
06947	Beryllium	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
07914	Boron	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
06949	Cadmium	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
01650	Calcium	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
06951	Chromium	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
06952	Cobalt	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
06953	Copper	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
01654	Iron	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
06955	Lead	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
01656	Lithium	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
01657	Magnesium	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
06958	Manganese	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
06960	Molybdenum	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
06961	Nickel	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
10145	Phosphorus	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
01662	Potassium	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
01667	Sodium	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
06969	Tin	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
06970	Titanium	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
06971	Vanadium	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
06972	Zinc	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
10146	Zirconium	SW-846 6010C	1	141340637004	05/15/2014 21:12	Maria A Orrs	1
06141	Selenium	SW-846 6020A	1	141340637004B	05/16/2014 05:22	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141340637004A	05/16/2014 05:22	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141340637004A	05/16/2014 05:22	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141340637004A	05/16/2014 05:22	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-511-SA5C-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457970
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 11:05 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51123 SDG#: PH173-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	141350638001	05/19/2014 08:59	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141340637004	05/15/2014 07:05	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141350638001	05/16/2014 11:14	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14129039401A	05/09/2014 21:10	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14136162401A	05/16/2014 18:04	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-749-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457971
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 13:30 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

74900 SDG#: PH173-04BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	2.0		1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.2	J	1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	0.89	J	1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.0	J	1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	6.8	J	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	1.3	J	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	12	J	19	6.3	1
12969	Fluoranthene	206-44-0	1.9		1.7	0.70	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	4.1		1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	3.4		1.7	0.70	1
12969	Naphthalene	91-20-3	1.1	J	1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	9.3	J	19	6.3	1
12969	Phenanthrene	85-01-8	8.6		1.7	0.70	1
12969	Pyrene	129-00-0	2.1		1.7	0.70	1
Perchlorate	**SW-846 6850 1/2007**		**ug/kg**		**ug/kg**	**ug/kg**	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.3	U	5.3	2.2	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,700		40.5	7.30	1
06944	Antimony	7440-36-0	4.05	U	4.05	0.749	1
06935	Arsenic	7440-38-2	5.70		4.05	0.709	1
06946	Barium	7440-39-3	74.6		1.01	0.0334	1
06947	Beryllium	7440-41-7	0.572	J	1.01	0.0678	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-749-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457971
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 13:30 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

74900 SDG#: PH173-04BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
07914	Boron	7440-42-8	1.77	J	10.1	0.850	1
06949	Cadmium	7440-43-9	1.01	U	1.01	0.0769	1
01650	Calcium	7440-70-2	3,330		20.2	3.38	1
06951	Chromium	7440-47-3	16.7		3.04	0.162	1
06952	Cobalt	7440-48-4	4.98		1.01	0.100	1
06953	Copper	7440-50-8	11.8		2.02	0.294	1
01654	Iron	7439-89-6	19,700		40.5	3.66	1
06955	Lead	7439-92-1	8.82		3.04	0.506	1
01656	Lithium	7439-93-2	22.7		4.0	0.34	1
01657	Magnesium	7439-95-4	4,070		10.1	1.69	1
06958	Manganese	7439-96-5	304		1.01	0.0840	1
06960	Molybdenum	7439-98-7	0.442	J	2.02	0.172	1
06961	Nickel	7440-02-0	13.4		2.02	0.132	1
10145	Phosphorus	7723-14-0	274		10.1	2.93	1
01662	Potassium	7440-09-7	2,330		101	8.44	1
01667	Sodium	7440-23-5	88.5	J	101	16.9	1
06969	Tin	7440-31-5	2.99	J	10.1	0.223	1
06970	Titanium	7440-32-6	972		1.01	0.172	1
06971	Vanadium	7440-62-2	36.3		1.01	0.132	1
06972	Zinc	7440-66-6	75.8		4.05	0.202	1
10146	Zirconium	7440-67-7	3.11	J	5.06	0.850	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.152	J	0.405	0.101	2
06142	Silver	7440-22-4	0.0300	J	0.202	0.0263	2
06144	Strontium	7440-24-6	28.7		0.405	0.0688	2
06145	Thallium	7440-28-0	0.276		0.202	0.0304	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0139	J	0.0168	0.0101	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.17		0.0100	0.0100	1
	The pH was measured in water at 23.2 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	5.0		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-749-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457971
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 13:30 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

74900 SDG#: PH173-04BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.176	JB	1.04	0.104	1
11031	12378-PeCDD	40321-76-4	1.87	JB	5.20	0.162	1
11031	123478-HxCDD	39227-28-6	3.04	J	5.20	0.106	1
11031	123678-HxCDD	57653-85-7	22.1	B	5.20	0.104	1
11031	123789-HxCDD	19408-74-3	8.42	B	5.20	0.102	1
11031	1234678-HpCDD	35822-46-9	572	B	5.20	0.137	1
11031	OCDD	3268-87-9	3,460	B	10.4	0.0854	1
11031	2378-TCDF	51207-31-9	0.150	JQ	1.04	0.0612	1
11031	12378-PeCDF	57117-41-6	0.388	JBQ	5.20	0.0468	1
11031	23478-PeCDF	57117-31-4	0.460	JBQ	5.20	0.0422	1
11031	123478-HxCDF	70648-26-9	0.945	J	5.20	0.0755	1
11031	123678-HxCDF	57117-44-9	1.11	JQ	5.20	0.0702	1
11031	123789-HxCDF	72918-21-9	0.322	JBQ	5.20	0.0749	1
11031	234678-HxCDF	60851-34-5	1.84	J	5.20	0.0698	1
11031	1234678-HpCDF	67562-39-4	29.6	B	5.20	0.0637	1
11031	1234789-HpCDF	55673-89-7	2.47	JB	5.20	0.0724	1
11031	OCDF	39001-02-0	66.6	B	10.4	0.0480	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	12.8				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	79	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	88	17 - 157
13C12-2378-TCDF	72	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	74	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	78	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	79	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	80	26 - 138
13C12-OCDF	70	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-749-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457971
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 13:30 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

74900 SDG#: PH173-04BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-749-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457971
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 13:30 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

74900 SDG#: PH173-04BKG

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14133SLF026	05/20/2014 04:56	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14133SLF026	05/13/2014 21:30	Karen L Beyer	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141360001A	05/16/2014 15:33	Richard A Shober	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141330006A	05/18/2014 21:52	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141330006A	05/13/2014 14:30	Kelli M Barto	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	2	141360001A	05/16/2014 08:10	Maria Davenport	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14134003	05/16/2014 03:07	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14134003	05/14/2014 13:40	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
06944	Antimony	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
06935	Arsenic	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
06946	Barium	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
06947	Beryllium	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
07914	Boron	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
06949	Cadmium	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
01650	Calcium	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
06951	Chromium	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
06952	Cobalt	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
06953	Copper	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
01654	Iron	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
06955	Lead	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
01656	Lithium	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
01657	Magnesium	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
06958	Manganese	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
06960	Molybdenum	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
06961	Nickel	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
10145	Phosphorus	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
01662	Potassium	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
01667	Sodium	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
06969	Tin	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
06970	Titanium	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
06971	Vanadium	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
06972	Zinc	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
10146	Zirconium	SW-846 6010C	1	141340637004	05/15/2014 20:32	Maria A Orrs	1
06141	Selenium	SW-846 6020A	1	141340637004B	05/16/2014 04:59	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141340637004A	05/16/2014 04:59	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141340637004A	05/16/2014 04:59	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141340637004A	05/16/2014 04:59	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-749-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457971
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 13:30 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

74900 SDG#: PH173-04BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	141350638001	05/19/2014 09:01	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141340637004	05/15/2014 07:05	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141350638001	05/16/2014 11:14	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14129039401A	05/09/2014 21:10	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14136162401A	05/16/2014 18:04	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-749-SA5C-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457972
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 13:30 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

74900 SDG#: PH173-04MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/kg		ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	37		1.7	0.70	1
12969	Acenaphthylene	208-96-8	34		1.7	0.35	1
12969	Anthracene	120-12-7	35		1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	38		1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	34		1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	38		1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	30		18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	29		1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	31		1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	41		19	6.3	1
12969	Di-n-butylphthalate	84-74-2	36		19	6.3	1
12969	Chrysene	218-01-9	34		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	31		1.7	0.70	1
12969	Diethylphthalate	84-66-2	32		19	6.3	1
12969	Dimethylphthalate	131-11-3	33		19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	47		19	6.3	1
12969	Fluoranthene	206-44-0	34		1.7	0.70	1
12969	Fluorene	86-73-7	31		1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	31		1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	41		1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	40		1.7	0.70	1
12969	Naphthalene	91-20-3	32		1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	29		1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	43		19	6.3	1
12969	Phenanthrene	85-01-8	62		1.7	0.70	1
12969	Pyrene	129-00-0	35		1.7	0.70	1
Perchlorate	**SW-846 6850 1/2007**		ug/kg		ug/kg	ug/kg	
06557	6a Perchlorate (Method 6850)	14797-73-0	110		5.3	2.2	1
Pesticides/PCBs	**SW-846 8082A**		ug/kg		ug/kg	ug/kg	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	160		18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	170		18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
Metals	**SW-846 6010C**		mg/kg		mg/kg	mg/kg	
01643	Aluminum	7429-90-5	19,900		41.3	7.44	1
06944	Antimony	7440-36-0	24.4		4.13	0.764	1
06935	Arsenic	7440-38-2	21.8		4.13	0.722	1
06946	Barium	7440-39-3	291		1.03	0.0341	1
06947	Beryllium	7440-41-7	5.91		1.03	0.0691	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-749-SA5C-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457972
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 13:30 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

74900 SDG#: PH173-04MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**	**mg/kg**	**mg/kg**	
07914	Boron	7440-42-8	205	10.3	0.867	1
06949	Cadmium	7440-43-9	4.91	1.03	0.0784	1
01650	Calcium	7440-70-2	4,850	20.6	3.45	1
06951	Chromium	7440-47-3	42.9	3.10	0.165	1
06952	Cobalt	7440-48-4	55.6	1.03	0.102	1
06953	Copper	7440-50-8	42.7	2.06	0.299	1
01654	Iron	7439-89-6	22,800	41.3	3.74	1
06955	Lead	7439-92-1	25.3	3.10	0.516	1
01656	Lithium	7439-93-2	130	4.1	0.35	1
01657	Magnesium	7439-95-4	5,030	10.3	1.72	1
06958	Manganese	7439-96-5	406	1.03	0.0857	1
06960	Molybdenum	7439-98-7	188	2.06	0.175	1
06961	Nickel	7440-02-0	63.6	2.06	0.134	1
10145	Phosphorus	7723-14-0	402	10.3	2.98	1
01662	Potassium	7440-09-7	3,930	103	8.61	1
01667	Sodium	7440-23-5	1,100	103	17.2	1
06969	Tin	7440-31-5	352	10.3	0.227	1
06970	Titanium	7440-32-6	1,350	1.03	0.175	1
06971	Vanadium	7440-62-2	96.4	1.03	0.134	1
06972	Zinc	7440-66-6	159	4.13	0.206	1
10146	Zirconium	7440-67-7	104	5.16	0.867	1
	SW-846 6020A		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.23	0.413	0.103	2
06142	Silver	7440-22-4	10.8	0.206	0.0268	2
06144	Strontium	7440-24-6	46.9	0.413	0.0702	2
06145	Thallium	7440-28-0	0.754	0.206	0.0310	2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.185	0.0165	0.0099	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	5.0	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-749-SA5C-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457972
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 13:30 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

74900 SDG#: PH173-04MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	18.6	B	1.03	0.102	1
11031	12378-PeCDD	40321-76-4	95.4	B	5.16	0.175	1
11031	123478-HxCDD	39227-28-6	102		5.16	0.141	1
11031	123678-HxCDD	57653-85-7	116	B	5.16	0.138	1
11031	123789-HxCDD	19408-74-3	103	B	5.16	0.128	1
11031	1234678-HpCDD	35822-46-9	1,010	B	5.16	0.194	1
11031	OCDD	3268-87-9	3,990	B	10.3	0.110	1
11031	2378-TCDF	51207-31-9	19.7		1.03	0.0605	1
11031	12378-PeCDF	57117-41-6	97.8	B	5.16	0.0592	1
11031	23478-PeCDF	57117-31-4	99.0	B	5.16	0.0559	1
11031	123478-HxCDF	70648-26-9	98.4		5.16	0.0958	1
11031	123678-HxCDF	57117-44-9	99.2		5.16	0.0884	1
11031	123789-HxCDF	72918-21-9	96.5	B	5.16	0.0948	1
11031	234678-HxCDF	60851-34-5	100		5.16	0.0861	1
11031	1234678-HpCDF	67562-39-4	130	B	5.16	0.0799	1
11031	1234789-HpCDF	55673-89-7	98.3	B	5.16	0.0976	1
11031	OCDF	39001-02-0	280	B	10.3	0.0672	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	79	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	88	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	78	29 - 147
13C12-1234678-HpCDF	87	28 - 143
13C12-1234789-HpCDF	76	26 - 138
13C12-OCDF	64	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-749-SA5C-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457972
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 13:30 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

74900 SDG#: PH173-04MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
S	*Saturation of detection signal*					

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-749-SA5C-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457972
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 13:30 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

74900 SDG#: PH173-04MS

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14133SLF026	05/20/2014 05:28	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14133SLF026	05/13/2014 21:30	Karen L Beyer	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141360001A	05/16/2014 15:46	Richard A Shober	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141330006A	05/18/2014 22:10	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141330006A	05/13/2014 14:30	Kelli M Barto	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	2	141360001A	05/16/2014 08:10	Maria Davenport	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14134003	05/16/2014 04:03	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14134003	05/14/2014 13:40	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
06944	Antimony	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
06935	Arsenic	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
06946	Barium	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
06947	Beryllium	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
07914	Boron	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
06949	Cadmium	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
01650	Calcium	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
06951	Chromium	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
06952	Cobalt	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
06953	Copper	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
01654	Iron	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
06955	Lead	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
01656	Lithium	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
01657	Magnesium	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
06958	Manganese	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
06960	Molybdenum	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
06961	Nickel	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
10145	Phosphorus	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
01662	Potassium	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
01667	Sodium	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
06969	Tin	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
06970	Titanium	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
06971	Vanadium	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
06972	Zinc	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
10146	Zirconium	SW-846 6010C	1	141340637004	05/15/2014 20:44	Maria A Orrs	1
06141	Selenium	SW-846 6020A	1	141340637004B	05/16/2014 05:06	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141340637004A	05/16/2014 05:06	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141340637004A	05/16/2014 05:06	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141340637004A	05/16/2014 05:06	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-749-SA5C-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457972
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 13:30 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

74900 SDG#: PH173-04MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	141350638001	05/19/2014 09:07	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141340637004	05/15/2014 07:05	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141350638001	05/16/2014 11:14	Denise K Conners	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14136162401A	05/16/2014 18:04	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-749-SA5C-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457973
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 13:30 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

74900 SDG#: PH173-04MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	42		1.7	0.70	1
12969	Acenaphthylene	208-96-8	40		1.7	0.35	1
12969	Anthracene	120-12-7	47		1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	49		1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	42		1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	44		1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	34		18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	26		1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	37		1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	43		19	6.3	1
12969	Di-n-butylphthalate	84-74-2	43		19	6.3	1
12969	Chrysene	218-01-9	45		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	27		1.7	0.70	1
12969	Diethylphthalate	84-66-2	36		19	6.3	1
12969	Dimethylphthalate	131-11-3	40		19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	70		19	6.3	1
12969	Fluoranthene	206-44-0	53		1.7	0.70	1
12969	Fluorene	86-73-7	34		1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	29		1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	90		1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	80		1.7	0.70	1
12969	Naphthalene	91-20-3	49		1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	32		1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	44		19	6.3	1
12969	Phenanthrene	85-01-8	150		1.7	0.70	1
12969	Pyrene	129-00-0	53		1.7	0.70	1
Perchlorate	**SW-846 6850 1/2007**		**ug/kg**		**ug/kg**	**ug/kg**	
06557	6a Perchlorate (Method 6850)	14797-73-0	120		5.3	2.2	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	150		18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	170		18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	19,600		41.3	7.44	1
06944	Antimony	7440-36-0	23.4		4.13	0.764	1
06935	Arsenic	7440-38-2	22.1		4.13	0.722	1
06946	Barium	7440-39-3	294		1.03	0.0341	1
06947	Beryllium	7440-41-7	5.94		1.03	0.0691	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-749-SA5C-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457973
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 13:30 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

74900 SDG#: PH173-04MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**	**mg/kg**	**mg/kg**	
07914	Boron	7440-42-8	209	10.3	0.867	1
06949	Cadmium	7440-43-9	5.07	1.03	0.0784	1
01650	Calcium	7440-70-2	4,830	20.6	3.45	1
06951	Chromium	7440-47-3	43.1	3.10	0.165	1
06952	Cobalt	7440-48-4	53.5	1.03	0.102	1
06953	Copper	7440-50-8	46.9	2.06	0.299	1
01654	Iron	7439-89-6	23,000	41.3	3.74	1
06955	Lead	7439-92-1	26.6	3.10	0.516	1
01656	Lithium	7439-93-2	130	4.1	0.35	1
01657	Magnesium	7439-95-4	4,980	10.3	1.72	1
06958	Manganese	7439-96-5	353	1.03	0.0857	1
06960	Molybdenum	7439-98-7	188	2.06	0.175	1
06961	Nickel	7440-02-0	66.1	2.06	0.134	1
10145	Phosphorus	7723-14-0	432	10.3	2.98	1
01662	Potassium	7440-09-7	3,870	103	8.61	1
01667	Sodium	7440-23-5	1,110	103	17.2	1
06969	Tin	7440-31-5	354	10.3	0.227	1
06970	Titanium	7440-32-6	1,360	1.03	0.175	1
06971	Vanadium	7440-62-2	97.2	1.03	0.134	1
06972	Zinc	7440-66-6	198	4.13	0.206	1
10146	Zirconium	7440-67-7	104	5.16	0.867	1
	SW-846 6020A		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.45	0.413	0.103	2
06142	Silver	7440-22-4	10.5	0.206	0.0268	2
06144	Strontium	7440-24-6	43.9	0.413	0.0702	2
06145	Thallium	7440-28-0	0.698	0.206	0.0310	2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.184	0.0168	0.0101	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	5.0	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-749-SA5C-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457973
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 13:30 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

74900 SDG#: PH173-04MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	18.4	B	1.04	0.124	1
11031	12378-PeCDD	40321-76-4	99.7	B	5.19	0.197	1
11031	123478-HxCDD	39227-28-6	105		5.19	0.136	1
11031	123678-HxCDD	57653-85-7	140	B	5.19	0.134	1
11031	123789-HxCDD	19408-74-3	115	B	5.19	0.135	1
11031	1234678-HpCDD	35822-46-9	1,250	B	5.19	0.230	1
11031	OCDD	3268-87-9	7,280	EB	10.4	0.119	1
11031	2378-TCDF	51207-31-9	20.8		1.04	0.0953	1
11031	12378-PeCDF	57117-41-6	98.5	B	5.19	0.0604	1
11031	23478-PeCDF	57117-31-4	99.9	B	5.19	0.0560	1
11031	123478-HxCDF	70648-26-9	99.2		5.19	0.108	1
11031	123678-HxCDF	57117-44-9	102		5.19	0.101	1
11031	123789-HxCDF	72918-21-9	97.0	B	5.19	0.0941	1
11031	234678-HxCDF	60851-34-5	103		5.19	0.0973	1
11031	1234678-HpCDF	67562-39-4	176	B	5.19	0.0804	1
11031	1234789-HpCDF	55673-89-7	99.5	B	5.19	0.103	1
11031	OCDF	39001-02-0	384	B	10.4	0.0625	1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	83	23 - 140
13C12-OCDD	85	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	73	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	75	28 - 136
13C12-123789-HxCDF	84	29 - 147
13C12-1234678-HpCDF	80	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	61	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-749-SA5C-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457973
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 13:30 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

74900 SDG#: PH173-04MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
S	*Saturation of detection signal*					

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-749-SA5C-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457973
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 13:30 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

74900 SDG#: PH173-04MSD

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14133SLF026	05/20/2014 05:59	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14133SLF026	05/13/2014 21:30	Karen L Beyer	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141360001A	05/16/2014 15:59	Richard A Shober	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141330006A	05/18/2014 22:29	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141330006A	05/13/2014 14:30	Kelli M Barto	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	2	141360001A	05/16/2014 08:10	Maria Davenport	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14134003	05/16/2014 08:03	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14134003	05/14/2014 13:40	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
06944	Antimony	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
06935	Arsenic	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
06946	Barium	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
06947	Beryllium	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
07914	Boron	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
06949	Cadmium	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
01650	Calcium	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
06951	Chromium	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
06952	Cobalt	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
06953	Copper	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
01654	Iron	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
06955	Lead	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
01656	Lithium	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
01657	Magnesium	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
06958	Manganese	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
06960	Molybdenum	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
06961	Nickel	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
10145	Phosphorus	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
01662	Potassium	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
01667	Sodium	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
06969	Tin	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
06970	Titanium	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
06971	Vanadium	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
06972	Zinc	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
10146	Zirconium	SW-846 6010C	1	141340637004	05/15/2014 20:48	Maria A Orrs	1
06141	Selenium	SW-846 6020A	1	141340637004B	05/16/2014 05:08	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141340637004A	05/16/2014 05:08	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141340637004A	05/16/2014 05:08	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141340637004A	05/16/2014 05:08	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-749-SA5C-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457973
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 13:30 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

74900 SDG#: PH173-04MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	141350638001	05/19/2014 09:09	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141340637004	05/15/2014 07:05	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141350638001	05/16/2014 11:14	Denise K Conners	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14136162401A	05/16/2014 18:04	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-749-SA5C-SB-0.0-0.5DUP Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457974
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 13:30 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

74900 SDG#: PH173-04DUP

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,200		40.9	7.37	1
06944	Antimony	7440-36-0	4.09	U	4.09	0.756	1
06935	Arsenic	7440-38-2	5.95		4.09	0.715	1
06946	Barium	7440-39-3	68.0		1.02	0.0337	1
06947	Beryllium	7440-41-7	0.547	J	1.02	0.0685	1
07914	Boron	7440-42-8	1.49	J	10.2	0.858	1
06949	Cadmium	7440-43-9	1.02	U	1.02	0.0777	1
01650	Calcium	7440-70-2	2,930		20.4	3.41	1
06951	Chromium	7440-47-3	16.6		3.07	0.164	1
06952	Cobalt	7440-48-4	4.75		1.02	0.101	1
06953	Copper	7440-50-8	11.5		2.04	0.296	1
01654	Iron	7439-89-6	18,700		40.9	3.70	1
06955	Lead	7439-92-1	8.19		3.07	0.511	1
01656	Lithium	7439-93-2	22.3		4.1	0.35	1
01657	Magnesium	7439-95-4	3,940		10.2	1.71	1
06958	Manganese	7439-96-5	237		1.02	0.0848	1
06960	Molybdenum	7439-98-7	0.225	J	2.04	0.174	1
06961	Nickel	7440-02-0	12.6		2.04	0.133	1
10145	Phosphorus	7723-14-0	272		10.2	2.95	1
01662	Potassium	7440-09-7	2,240		102	8.52	1
01667	Sodium	7440-23-5	84.6	J	102	17.1	1
06969	Tin	7440-31-5	2.75	J	10.2	0.225	1
06970	Titanium	7440-32-6	932		1.02	0.174	1
06971	Vanadium	7440-62-2	34.8		1.02	0.133	1
06972	Zinc	7440-66-6	73.8		4.09	0.204	1
10146	Zirconium	7440-67-7	3.37	J	5.11	0.858	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.167	J	0.409	0.102	2
06142	Silver	7440-22-4	0.0280	J	0.204	0.0266	2
06144	Strontium	7440-24-6	24.7		0.409	0.0695	2
06145	Thallium	7440-28-0	0.237		0.204	0.0307	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0156	J	0.0167	0.0100	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.20		0.0100	0.0100	1
	The pH was measured in water at 23.2 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	5.0		0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	5.0		0.10	0.10	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-749-SA5C-SB-0.0-0.5DUP Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457974
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 13:30 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

74900 SDG#: PH173-04DUP

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
06944	Antimony	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
06935	Arsenic	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
06946	Barium	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
06947	Beryllium	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
07914	Boron	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
06949	Cadmium	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
01650	Calcium	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
06951	Chromium	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
06952	Cobalt	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
06953	Copper	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
01654	Iron	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
06955	Lead	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
01656	Lithium	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
01657	Magnesium	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
06958	Manganese	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
06960	Molybdenum	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
06961	Nickel	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
10145	Phosphorus	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
01662	Potassium	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
01667	Sodium	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
06969	Tin	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
06970	Titanium	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
06971	Vanadium	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
06972	Zinc	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
10146	Zirconium	SW-846 6010C	1	141340637004	05/15/2014 20:40	Maria A Orrs	1
06141	Selenium	SW-846 6020A	1	141340637004B	05/16/2014 05:04	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141340637004A	05/16/2014 05:04	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141340637004A	05/16/2014 05:04	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141340637004A	05/16/2014 05:04	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141350638001	05/19/2014 09:05	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141340637004	05/15/2014 07:05	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141350638001	05/16/2014 11:14	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14129039401A	05/09/2014 21:10	Luz M Groff	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14136162401A	05/16/2014 18:04	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	14136162401A	05/16/2014 18:04	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-1049-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457975
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 14:00 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

1049- SDG#: PH173-05*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.1	J	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	0.95	J	1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	7.1	J	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	0.46	J	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	9.8	J	19	6.3	1
12969	Fluoranthene	206-44-0	0.80	J	1.7	0.70	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.1	J	1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.70	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	9.7		1.7	0.70	1
12969	Pyrene	129-00-0	1.2	J	1.7	0.70	1
Perchlorate	**SW-846 6850 1/2007**		**ug/kg**		**ug/kg**	**ug/kg**	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.3	U	5.3	2.2	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.7	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,800		41.5	7.48	1
06944	Antimony	7440-36-0	4.15	U	4.15	0.768	1
06935	Arsenic	7440-38-2	4.95		4.15	0.726	1
06946	Barium	7440-39-3	70.2		1.04	0.0342	1
06947	Beryllium	7440-41-7	0.562	J	1.04	0.0695	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-1049-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457975
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 14:00 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

1049- SDG#: PH173-05*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
07914	Boron	7440-42-8	1.59	J	10.4	0.871	1
06949	Cadmium	7440-43-9	1.04	U	1.04	0.0788	1
01650	Calcium	7440-70-2	5,940		20.7	3.47	1
06951	Chromium	7440-47-3	17.1		3.11	0.166	1
06952	Cobalt	7440-48-4	4.87		1.04	0.103	1
06953	Copper	7440-50-8	10.6		2.07	0.301	1
01654	Iron	7439-89-6	18,100		41.5	3.76	1
06955	Lead	7439-92-1	7.07		3.11	0.519	1
01656	Lithium	7439-93-2	20.9		4.1	0.35	1
01657	Magnesium	7439-95-4	3,830		10.4	1.73	1
06958	Manganese	7439-96-5	256		1.04	0.0861	1
06960	Molybdenum	7439-98-7	2.07	U	2.07	0.176	1
06961	Nickel	7440-02-0	12.4		2.07	0.135	1
10145	Phosphorus	7723-14-0	259		10.4	3.00	1
01662	Potassium	7440-09-7	2,160		104	8.65	1
01667	Sodium	7440-23-5	76.4	J	104	17.3	1
06969	Tin	7440-31-5	2.73	J	10.4	0.228	1
06970	Titanium	7440-32-6	925		1.04	0.176	1
06971	Vanadium	7440-62-2	35.9		1.04	0.135	1
06972	Zinc	7440-66-6	49.7		4.15	0.207	1
10146	Zirconium	7440-67-7	3.13	J	5.19	0.871	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.160	J	0.415	0.104	2
06142	Silver	7440-22-4	0.0444	J	0.207	0.0270	2
06144	Strontium	7440-24-6	27.3		0.415	0.0705	2
06145	Thallium	7440-28-0	0.248		0.207	0.0311	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0170	U	0.0170	0.0102	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.15		0.0100	0.0100	1
	The pH was measured in water at 23.2 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	5.5		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-1049-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457975
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 14:00 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

1049- SDG#: PH173-05*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.04	U	1.04	0.0604	1
11031	12378-PeCDD	40321-76-4	0.131	JB	5.22	0.0801	1
11031	123478-HxCDD	39227-28-6	0.202	J	5.22	0.0686	1
11031	123678-HxCDD	57653-85-7	0.758	JB	5.22	0.0697	1
11031	123789-HxCDD	19408-74-3	0.567	JB	5.22	0.0704	1
11031	1234678-HpCDD	35822-46-9	24.2	B	5.22	0.0709	1
11031	OCDD	3268-87-9	161	B	10.4	0.0632	1
11031	2378-TCDF	51207-31-9	1.04	U	1.04	0.0394	1
11031	12378-PeCDF	57117-41-6	0.0849	JBQ	5.22	0.0307	1
11031	23478-PeCDF	57117-31-4	0.241	JB	5.22	0.0285	1
11031	123478-HxCDF	70648-26-9	0.133	J	5.22	0.0515	1
11031	123678-HxCDF	57117-44-9	0.272	JQ	5.22	0.0491	1
11031	123789-HxCDF	72918-21-9	0.138	JBQ	5.22	0.0572	1
11031	234678-HxCDF	60851-34-5	0.363	JQ	5.22	0.0495	1
11031	1234678-HpCDF	67562-39-4	2.75	JB	5.22	0.0271	1
11031	1234789-HpCDF	55673-89-7	0.483	JB	5.22	0.0371	1
11031	OCDF	39001-02-0	6.53	JB	10.4	0.0471	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.694				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	62	25 - 164
13C12-12378-PeCDD	66	25 - 181
13C12-123478-HxCDD	68	32 - 141
13C12-123678-HxCDD	67	28 - 130
13C12-123789-HxCDD	68	28 - 130
13C12-1234678-HpCDD	68	23 - 140
13C12-OCDD	63	17 - 157
13C12-2378-TCDF	59	24 - 169
13C12-12378-PeCDF	62	24 - 185
13C12-23478-PeCDF	59	21 - 178
13C12-123478-HxCDF	62	26 - 152
13C12-123678-HxCDF	65	26 - 123
13C12-234678-HxCDF	64	28 - 136
13C12-123789-HxCDF	62	29 - 147
13C12-1234678-HpCDF	74	28 - 143
13C12-1234789-HpCDF	62	26 - 138
13C12-OCDF	49	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-1049-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457975
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 14:00 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

1049- SDG#: PH173-05*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-1049-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457975
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 14:00 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

1049- SDG#: PH173-05*

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14133SLF026	05/20/2014 07:02	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14133SLF026	05/13/2014 21:30	Karen L Beyer	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141360001A	05/16/2014 16:12	Richard A Shober	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141330006A	05/18/2014 22:47	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141330006A	05/13/2014 14:30	Kelli M Barto	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	2	141360001A	05/16/2014 08:10	Maria Davenport	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14134003	05/16/2014 09:00	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14134003	05/14/2014 13:40	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
06944	Antimony	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
06935	Arsenic	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
06946	Barium	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
06947	Beryllium	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
07914	Boron	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
06949	Cadmium	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
01650	Calcium	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
06951	Chromium	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
06952	Cobalt	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
06953	Copper	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
01654	Iron	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
06955	Lead	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
01656	Lithium	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
01657	Magnesium	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
06958	Manganese	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
06960	Molybdenum	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
06961	Nickel	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
10145	Phosphorus	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
01662	Potassium	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
01667	Sodium	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
06969	Tin	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
06970	Titanium	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
06971	Vanadium	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
06972	Zinc	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
10146	Zirconium	SW-846 6010C	1	141340637004	05/15/2014 21:16	Maria A Orrs	1
06141	Selenium	SW-846 6020A	1	141340637004B	05/16/2014 05:24	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141340637004A	05/16/2014 05:24	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141340637004A	05/16/2014 05:24	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141340637004A	05/16/2014 05:24	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-1049-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7457975
LL Group # 1473208
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/08/2014 14:00 by WT

Submitted: 05/09/2014 09:15
Reported: 05/21/2014 16:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

1049- SDG#: PH173-05*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	141350638001	05/19/2014 09:15	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141340637004	05/15/2014 07:05	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141350638001	05/16/2014 11:14	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14129039401A	05/09/2014 21:10	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14136162401A	05/16/2014 18:04	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473208
Reported: 05/21/14 at 04:47 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14133SLF026	Sample number(s): 7457969-7457973,7457975									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	106		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	101		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	107		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	113		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	101		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	115		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	91		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	100		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	98		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	116		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	110		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	101		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	104		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	93		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	99		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	121		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	102		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	97		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	102		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	98		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	99		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	98		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	94		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	124		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	104		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	101		80-119		
Batch number: 14134WAE026	Sample number(s): 7457968									
Acenaphthene	0.050	U	0.050	0.010	ug/l	115	114	83-119	1	30
Acenaphthylene	0.050	U	0.050	0.010	ug/l	107	106	81-130	1	30
Anthracene	0.050	U	0.050	0.010	ug/l	109	110	83-125	1	30
Benzo(a)anthracene	0.050	U	0.050	0.010	ug/l	104	103	79-122	1	30
Benzo(a)pyrene	0.050	U	0.050	0.010	ug/l	109	108	80-121	0	30
Benzo(b)fluoranthene	0.050	U	0.050	0.010	ug/l	120	118	79-136	1	30
Benzo(e)pyrene	0.050	U	0.050	0.010	ug/l	110	108	67-118	1	30
Benzo(g,h,i)perylene	0.050	U	0.050	0.010	ug/l	107	106	72-132	1	30
Benzo(k)fluoranthene	0.050	U	0.050	0.010	ug/l	110	109	81-131	1	30
Butylbenzylphthalate	1.0	U	1.0	0.050	ug/l	96	95	40-138	2	30
Di-n-butylphthalate	0.064	J	1.0	0.050	ug/l	105	104	64-141	2	30
Chrysene	0.050	U	0.050	0.010	ug/l	107	107	84-118	0	30
Dibenz(a,h)anthracene	0.050	U	0.050	0.010	ug/l	94	96	66-133	2	30
Diethylphthalate	1.0	U	1.0	0.050	ug/l	109	110	64-137	1	30
Dimethylphthalate	1.0	U	1.0	0.050	ug/l	109	109	23-139	0	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473208
Reported: 05/21/14 at 04:47 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Bis(2-Ethylhexyl)phthalate	0.075	J	1.0	0.050	ug/l	58*	80	70-143	33*	30
Fluoranthene	0.050	U	0.050	0.010	ug/l	101	101	84-124	0	30
Fluorene	0.050	U	0.050	0.010	ug/l	106	106	82-119	0	30
Indeno(1,2,3-cd)pyrene	0.050	U	0.050	0.010	ug/l	100	99	68-132	1	30
1-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	100	101	86-130	1	30
2-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	97	98	81-131	0	30
Naphthalene	0.050	U	0.050	0.030	ug/l	103	103	82-122	1	30
N-Nitrosodimethylamine	0.050	U	0.050	0.010	ug/l	76	77	56-96	1	30
Di-n-octylphthalate	1.0	U	1.0	0.050	ug/l	58	67	57-145	14	30
Phenanthrene	0.050	U	0.050	0.030	ug/l	104	103	83-116	0	30
Pyrene	0.050	U	0.050	0.010	ug/l	108	107	78-125	1	30
Batch number: 14132A94A	Sample number(s): 7457968									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	107	98	80-133	8	30
Batch number: 141320020A	Sample number(s): 7457968									
6b Perchlorate (Method 6850)	1.0	U	1.0	0.20	ug/l	102		85-115		
Batch number: 141360001A	Sample number(s): 7457969-7457973,7457975									
6a Perchlorate (Method 6850)	5.0	U	5.0	2.1	ug/kg	105		85-115		
Batch number: 141330006A	Sample number(s): 7457969-7457973,7457975									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	83	85	36-106	3	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	94		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	99		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141340038A	Sample number(s): 7457968									
Aroclor 5432	0.40	U	0.40	0.080	ug/l					
Aroclor 5442	0.40	U	0.40	0.080	ug/l	69	63	34-115	9	30
Aroclor 5460	0.40	U	0.40	0.088	ug/l					
PCB-1016	0.40	U	0.40	0.080	ug/l	69	85	60-117	20	30
PCB-1221	0.40	U	0.40	0.080	ug/l					
PCB-1232	0.40	U	0.40	0.16	ug/l					
PCB-1242	0.40	U	0.40	0.080	ug/l					
PCB-1248	0.40	U	0.40	0.080	ug/l					
PCB-1254	0.40	U	0.40	0.080	ug/l					
PCB-1260	0.40	U	0.40	0.12	ug/l	59*	82	67-128	33*	30
PCB-1262	0.40	U	0.40	0.16	ug/l					
PCB-1268	0.40	U	0.40	0.13	ug/l					
Batch number: 141330017A	Sample number(s): 7457968									
EFH (C12-C14)	0.10	U	0.10	0.050	mg/l	86	79	67-109	9	30
EFH (C15-C20)	0.10	U	0.10	0.050	mg/l	91	83	71-119	9	30
EFH (C21-C30)	0.10	U	0.10	0.050	mg/l	90	83	75-117	8	30
EFH (C30 - C40)	0.50	U	0.50	0.10	mg/l	59	57	44-134	5	30
EFH (C8-C11)	0.10	U	0.10	0.050	mg/l	73	67	55-86	10	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473208
Reported: 05/21/14 at 04:47 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 141330035A	Sample number(s): 7457968									
EFH C12-C14 w/ SiGel	0.10	U	0.10	0.050	mg/l	77	80	67-109	3	30
EFH C15-C20 w/ SiGel	0.10	U	0.10	0.050	mg/l	81	85	71-119	5	30
EFH C21-C30 w/ SiGel	0.10	U	0.10	0.050	mg/l	81	85	75-117	5	30
EFH C30-C40 w/ SiGel	0.50	U	0.50	0.10	mg/l	65	68	44-134	5	30
EFH C8-C11 w/ SiGel	0.10	U	0.10	0.050	mg/l	58	59	55-86	2	30
Batch number: 141340637004	Sample number(s): 7457969-7457975									
Aluminum	40.0	U	40.0	7.21	mg/kg	102		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	106		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	108		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	102		80-120		
Boron	1.15	J	10.0	0.840	mg/kg	101		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	104		80-120		
Calcium	13.6	J	20.0	3.34	mg/kg	103		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	102		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	105		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	106		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	104		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	108		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	104		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	100		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	102		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	107		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	104		80-120		
Potassium	100 U		100.	8.34	mg/kg	101		80-120		
Sodium	100 U		100.	16.7	mg/kg	102		80-120		
Tin	1.35	J	10.0	0.220	mg/kg	101		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	103		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	103		80-120		
Zinc	0.568	J	4.00	0.200	mg/kg	103		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	103		80-120		
Batch number: 141340637004A	Sample number(s): 7457969-7457975									
Silver	0.200	U	0.200	0.0260	mg/kg	109		80-120		
Strontium	0.0750	J	0.400	0.0680	mg/kg	100		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	112		80-120		
Batch number: 141340637004B	Sample number(s): 7457969-7457975									
Selenium	0.400	U	0.400	0.100	mg/kg	109		80-120		
Batch number: 141350635001	Sample number(s): 7457968									
Aluminum	0.400	U	0.400	0.0828	mg/l	105	103	90-112	2	20
Antimony	0.0400	U	0.0400	0.0053	mg/l	106	103	88-111	3	20
Arsenic	0.0400	U	0.0400	0.0068	mg/l	106	102	90-113	4	20
Barium	0.0100	U	0.0100	0.00033	mg/l	105	105	90-110	0	20
Beryllium	0.0100	U	0.0100	0.00067	mg/l	103	103	90-111	0	20
Boron	0.100	U	0.100	0.0084	mg/l	99	99	90-110	0	20
Cadmium	0.0100	U	0.0100	0.00076	mg/l	105	102	90-112	3	20
Calcium	0.400	U	0.400	0.0334	mg/l	103	101	90-112	1	20
Chromium	0.0300	U	0.0300	0.0016	mg/l	102	101	90-110	0	20
Cobalt	0.0100	U	0.0100	0.0013	mg/l	108	105	90-110	3	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473208
Reported: 05/21/14 at 04:47 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Copper	0.0200 U	0.0200	0.0027	mg/l	107	107	90-112	0	20
Iron	0.400 U	0.400	0.0430	mg/l	105	103	90-112	2	20
Lead	0.0300 U	0.0300	0.0047	mg/l	109	106	88-116	3	20
Lithium	0.0400 U	0.0400	0.0047	mg/l	103	103	90-110	1	20
Magnesium	0.200 U	0.200	0.0167	mg/l	101	100	89-110	1	20
Manganese	0.0016 J	0.0100	0.00083	mg/l	106	106	90-110	0	20
Molybdenum	0.0200 U	0.0200	0.0017	mg/l	106	103	90-110	3	20
Nickel	0.0200 U	0.0200	0.0015	mg/l	111	108	90-111	3	20
Phosphorus	0.200 U	0.200	0.0418	mg/l	103	101	90-110	2	20
Potassium	1.00 U	1.00	0.0980	mg/l	101	100	90-110	0	20
Sodium	2.00 U	2.00	0.167	mg/l	103	102	87-114	1	20
Tin	0.0400 U	0.0400	0.0029	mg/l	103	100	90-110	3	20
Titanium	0.0200 U	0.0200	0.0017	mg/l	104	104	90-113	0	20
Vanadium	0.0100 U	0.0100	0.0020	mg/l	105	104	90-110	1	20
Zinc	0.0038 J	0.0400	0.0020	mg/l	105	102	90-110	3	20
Zirconium	0.100 U	0.100	0.0084	mg/l	102	102	90-110	1	20
Batch number: 141350638001	Sample number(s): 7457969-7457975								
3a Mercury 7471A	0.0167 U	0.0167	0.0100	mg/kg	91		85-120		
Batch number: 141350639001A	Sample number(s): 7457968								
Silver	0.0010 U	0.0010	0.00011	mg/l	102	101	90-115	1	20
Strontium	0.0020 U	0.0020	0.00034	mg/l	101	99	90-110	2	20
Thallium	0.0010 U	0.0010	0.00015	mg/l	107	102	90-115	4	20
Batch number: 141350639001B	Sample number(s): 7457968								
Selenium	0.0040 U	0.0040	0.00050	mg/l	109	133*	90-114	20	20
Batch number: 141355713005	Sample number(s): 7457968								
3b Mercury 7470A	0.00020 U	0.00020	0.00006 0	mg/l	98	101	90-115	3	20
Batch number: 14129039401A	Sample number(s): 7457969-7457971,7457974-7457975								
15a pH by 9045D					99		95-105		
Batch number: 14132003101A	Sample number(s): 7457968								
28b pH (9040B and 9040C)					100		90-110		
Batch number: 14136162401A	Sample number(s): 7457969-7457975								
14a Moisture Content by 160.3					100		80-120		
14a Moisture Content by 160.3					100		80-120		
14a Moisture Content by 160.3					100		80-120		

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14133003	Sample number(s): 7457968								
2378-TCDD	2.00 U	2.00	0.294	pg/l	104		60-150		
12378-PeCDD	10.0 U	10.0	0.223	pg/l	99		60-150		
123478-HxCDD	10.0 U	10.0	0.130	pg/l	97		60-150		
123678-HxCDD	10.0 U	10.0	0.136	pg/l	97		60-150		
123789-HxCDD	10.0 U	10.0	0.139	pg/l	100		60-150		
1234678-HpCDD	0.535 J	10.0	0.147	pg/l	97		60-150		
OCDD	1.07 J	20.0	0.162	pg/l	94		60-150		
2378-TCDF	2.00 U	2.00	0.196	pg/l	97		60-150		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473208
Reported: 05/21/14 at 04:47 PM

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
12378-PeCDF	0.438	J	10.0	0.107	pg/l	97		60-150		
23478-PeCDF	0.173	J	10.0	0.0973	pg/l	99		60-150		
123478-HxCDF	0.329	J	10.0	0.0946	pg/l	99		60-150		
123678-HxCDF	0.278	J	10.0	0.0941	pg/l	98		60-150		
123789-HxCDF	0.306	J	10.0	0.0899	pg/l	97		60-150		
234678-HxCDF	10.0	U	10.0	0.0870	pg/l	98		60-150		
1234678-HpCDF	0.256	J	10.0	0.0641	pg/l	97		60-150		
1234789-HpCDF	0.404	J	10.0	0.0769	pg/l	98		60-150		
OCDF	1.22	J	20.0	0.161	pg/l	99		60-150		
Batch number: 14134003	Sample number(s): 7457969-7457973,7457975									
2378-TCDD	0.0966	J	1.00	0.0675	ng/kg	86		67-158		
12378-PeCDD	0.0398	J	5.00	0.0371	ng/kg	90		70-142		
123478-HxCDD	5.00	U	5.00	0.0233	ng/kg	95		70-164		
123678-HxCDD	0.0254	J	5.00	0.0243	ng/kg	91		76-134		
123789-HxCDD	0.0340	J	5.00	0.0225	ng/kg	91		64-162		
1234678-HpCDD	0.0539	J	5.00	0.0298	ng/kg	88		70-140		
OCDD	0.208	J	10.0	0.0246	ng/kg	89		78-144		
2378-TCDF	1.00	U	1.00	0.0395	ng/kg	94		75-158		
12378-PeCDF	0.0374	J	5.00	0.0228	ng/kg	96		80-134		
23478-PeCDF	0.0307	J	5.00	0.0230	ng/kg	94		68-160		
123478-HxCDF	5.00	U	5.00	0.0230	ng/kg	93		72-134		
123678-HxCDF	5.00	U	5.00	0.0212	ng/kg	92		84-130		
123789-HxCDF	0.0835	J	5.00	0.0214	ng/kg	93		78-130		
234678-HxCDF	5.00	U	5.00	0.0227	ng/kg	92		70-156		
1234678-HpCDF	0.0286	J	5.00	0.00941	ng/kg	91		82-122		
1234789-HpCDF	0.0418	J	5.00	0.0148	ng/kg	90		78-138		
OCDF	0.129	J	10.0	0.0436	ng/kg	90		63-170		
Batch number: 14133003	Sample number(s): 7457968									
TEQ WHO 2005 - EDLx0.0	0.000685				pg/l					
Batch number: 14134003	Sample number(s): 7457969-7457973,7457975									
TEQ WHO 2005 - EDLx0.0	0.0497				ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14133SLF026	Sample number(s): 7457969-7457973,7457975 UNSPK: 7457971								
Acenaphthene	107	119	48-127	11	30				
Acenaphthylene	98	113	60-128	15	30				
Anthracene	95	127*	52-126	28	30				
Benzo(a)anthracene	105	137	44-143	26	30				
Benzo(a)pyrene	96	117	49-137	20	30				
Benzo(b)fluoranthene	106	124	26-142	16	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473208
Reported: 05/21/14 at 04:47 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Benzo(e)pyrene	85	96	63-111	12	30				
Benzo(g,h,i)perylene	84	75	33-141	12	30				
Benzo(k)fluoranthene	89	106	49-144	18	30				
Butylbenzylphthalate	97	105	64-156	7	30				
Di-n-butylphthalate	104	122	52-147	16	30				
Chrysene	95	125	43-141	27	30				
Dibenz(a,h)anthracene	90	78	25-145	14	30				
Diethylphthalate	91	102	66-140	12	30				
Dimethylphthalate	94	116	70-123	21	30				
Bis(2-Ethylhexyl)phthalate	101	166*	48-164	39*	30				
Fluoranthene	93	145	38-153	42*	30				
Fluorene	88	99	57-130	12	30				
Indeno(1,2,3-cd)pyrene	89	82	26-139	8	30				
1-Methylnaphthalene	107	247*	59-139	74*	30				
2-Methylnaphthalene	104	219*	46-147	67*	30				
Naphthalene	90	136	52-136	40*	30				
N-Nitrosodimethylamine	82	91	39-134	11	30				
Di-n-octylphthalate	97	100	52-162	3	30				
Phenanthrene	154*	399*	50-137	82*	30				
Pyrene	94	144*	26-143	40*	30				
Batch number: 141320020A	Sample number(s): 7457968 UNSPK: 7457968								
6b Perchlorate (Method 6850)	104	99	80-120	4	20				
Batch number: 141360001A	Sample number(s): 7457969-7457973,7457975 UNSPK: 7457971								
6a Perchlorate (Method 6850)	108	111	80-120	3	20				
Batch number: 141330006A	Sample number(s): 7457969-7457973,7457975 UNSPK: 7457971								
PCB-1016	89	88	41-135	2	50				
PCB-1260	98	97	40-134	0	50				
Batch number: 141340637004	Sample number(s): 7457969-7457975 UNSPK: 7457971 BKG: 7457971								
Aluminum	3014 (2)	2861 (2)	75-125	2	20	13,000	12,600	4	20
Antimony	47*	45*	75-125	4	20	3.85 U	3.88 U	0 (1)	20
Arsenic	104	106	75-125	2	20	5.42	5.66	4 (1)	20
Barium	105	106	75-125	1	20	70.9	64.6	9	20
Beryllium	103	104	75-125	0	20	0.543 J	0.519 J	4 (1)	20
Boron	99	101	75-125	2	20	1.68 J	1.41 J	17 (1)	20
Cadmium	95	98	75-125	3	20	0.962 U	0.971 U	0 (1)	20
Calcium	369 (2)	365 (2)	75-125	0	20	3,160	2,780	13	20
Chromium	127*	128*	75-125	1	20	15.8	15.8	0	20
Cobalt	98	94	75-125	4	20	4.73	4.51	5 (1)	20
Copper	120	136*	75-125	9	20	11.2	10.9	3	20
Iron	3011 (2)	3164 (2)	75-125	1	20	18,700	17,800	5	20
Lead	106	115	75-125	5	20	8.38	7.78	7 (1)	20
Lithium	104	104	75-125	0	20	21.6	21.2	2	20
Magnesium	468 (2)	442 (2)	75-125	1	20	3,870	3,750	3	20
Manganese	198 (2)	96 (2)	75-125	14	20	288	226	24*	20
Molybdenum	91	91	75-125	0	20	0.420 J	0.214 J	65* (1)	20
Nickel	97	102	75-125	4	20	12.7	12.0	6	20

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Quality Control Summary

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Reported: 05/21/14 at 04:47 PM

Sample Matrix Quality Control

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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Phosphorus	125	154*	75-125	7	20	260	258	1	20
Potassium	155*	150*	75-125	1	20	2,210	2,130	4	20
Sodium	98	99	75-125	0	20	84.1 J	80.3 J	5 (1)	20
Tin	85	85	75-125	0	20	2.84 J	2.62 J	8 (1)	20
Titanium	363 (2)	380 (2)	75-125	1	20	923	886	4	20
Vanadium	116	118	75-125	1	20	34.5	33.0	4	20
Zinc	161*	237*	75-125	22*	20	72.0	70.1	3	20
Zirconium	98	97	75-125	1	20	2.95 J	3.20 J	8 (1)	20
Batch number: 141340637004A	Sample number(s): 7457969-7457975 UNSPK: 7457971 BKG: 7457971								
Silver	105	101	75-125	3	20	0.0285 J	0.0266 J	7 (1)	20
Strontium	221*	184*	75-125	7	20	27.2	23.5	15	20
Thallium	116	102	75-125	8	20	0.262	0.225	15 (1)	20
Batch number: 141340637004B	Sample number(s): 7457969-7457975 UNSPK: 7457971 BKG: 7457971								
Selenium	101	111	75-125	9	20	0.144 J	0.159 J	10 (1)	20
Batch number: 141350638001	Sample number(s): 7457969-7457975 UNSPK: 7457971 BKG: 7457971								
3a Mercury 7471A	104	101	65-135	1	20	0.0132 J	0.0148 J	12 (1)	20
Batch number: 14129039401A	Sample number(s): 7457969-7457971,7457974-7457975 BKG: 7457971								
15a pH by 9045D						8.17	8.20	0	3
Batch number: 14132003101A	Sample number(s): 7457968 BKG: P459188								
28b pH (9040B and 9040C)						7.8	7.8	1	3
Batch number: 14136162401A	Sample number(s): 7457969-7457975 BKG: 7457971								
14a Moisture Content by 160.3						5.0	5.0	0	20
14a Moisture Content by 160.3						5.0	5.0	0	20
14a Moisture Content by 160.3						5.0	5.0	0	20
Batch number: 14134003	Sample number(s): 7457969-7457973,7457975 UNSPK: 7457971								
2378-TCDD	89	88	40-135	1	20				
12378-PeCDD	91	94	40-135	4	20				
123478-HxCDD	96	98	40-135	3	20				
123678-HxCDD	91	114	40-135	19	20				
123789-HxCDD	92	103	40-135	11	20				
1234678-HpCDD	429 (2)	656 (2)	40-135	21*	20				
OCDD	255 (2)	1840 (2)	40-135	58*	20				
2378-TCDF	95	99	40-135	5	20				
12378-PeCDF	94	94	40-135	1	20				
23478-PeCDF	95	96	40-135	1	20				
123478-HxCDF	94	95	40-135	1	20				
123678-HxCDF	95	97	40-135	3	20				
123789-HxCDF	93	93	40-135	1	20				
234678-HxCDF	95	98	40-135	3	20				
1234678-HpCDF	97	142*	40-135	30*	20				
1234789-HpCDF	93	93	40-135	1	20				
OCDF	104	153*	40-135	31*	20				

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473208
Reported: 05/21/14 at 04:47 PM

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14133SLF026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7457969	93	107	86
7457970	90	108	85
7457971	96	111	86
7457972	87	105	82
7457973	93	104	88
7457975	90	112	88
Blank	97	115	91
LCS	97	114	91
MS	87	105	82
MSD	93	104	88
Limits:	59-115	61-118	70-127

Analysis Name: 7b SVOC SIM EPA 8270D
Batch number: 14134WAE026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7457968	96	96	94
Blank	99	120	91
LCS	103	126	98
LCSD	103	127	99
Limits:	59-128	62-141	70-134

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14132A94A

	Trifluorotoluene-F
7457968	85
Blank	85
LCS	96
LCSD	92
Limits:	63-135

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141330006A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7457969	89	93
7457970	103	105
7457971	105	103
7457972	97	105
7457973	98	108

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473208
Reported: 05/21/14 at 04:47 PM

Surrogate Quality Control

7457975	97	110
Blank	101	96
LCS	105	104
LCSD	110	115
MS	97	105
MSD	98	108
Limits:	45-120	45-120

Analysis Name: 21b PCBs and PCTs 8082A
Batch number: 141340038A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7457968	97	91
Blank	89	60
LCS	80	34*
LCSD	97	60
Limits:	45-120	45-120

Analysis Name: 10b TPH by EPA 8015B (DRO)
Batch number: 141330017A

	Chlorobenzene	Orthoterphenyl
7457968	68	86
Blank	88	93
LCS	94	87
LCSD	64	79
Limits:	45-126	69-119

Analysis Name: 10b TPH by EPA 8015B (DRO)
Batch number: 141330035A

	Chlorobenzene	Orthoterphenyl
7457968	71	81
Blank	63	71
LCS	71	78
LCSD	72	82
Limits:	45-126	69-119

Analysis Name: 17b Dioxin/Furan by EPA 1613B
Batch number: 14133003

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7457968	83	89	95	95	94	98
Blank	74	80	89	91	89	94
OPR	75	84	85	86	84	90
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7457968	97	87	96	95	103	102
Blank	95	79	87	87	94	96

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473208
Reported: 05/21/14 at 04:47 PM

Surrogate Quality Control

OPR	95	80	90	89	88	89
Limits:	17-157	24-169	24-185	21-178	26-152	26-123
	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	
7457968	102	116	105	106	107	
Blank	95	105	103	99	96	
OPR	89	92	94	93	92	
Limits:	28-136	29-147	28-143	26-138	17-157	

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 14134003

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7457969	81	85	85	84	87	94
7457970	83	88	88	87	87	95
7457971	76	79	84	81	84	87
7457972	76	79	82	79	82	85
7457973	73	76	80	78	80	83
7457975	62	66	68	67	68	68
Blank	70	75	80	77	80	85
MS	76	79	82	79	82	85
MSD	73	76	80	78	80	83
OPR	71	81	80	79	82	89
Limits:	25-164	25-181	32-141	28-130	28-130	23-140
	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7457969	110	79	80	80	80	79
7457970	103	81	82	81	82	83
7457971	88	72	75	74	75	78
7457972	88	74	76	72	75	77
7457973	85	69	73	71	72	73
7457975	63	59	62	59	62	65
Blank	78	65	72	66	69	73
MS	88	74	76	72	75	77
MSD	85	69	73	71	72	73
OPR	86	67	74	74	71	75
Limits:	17-157	24-169	24-185	21-178	26-152	26-123
	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	
7457969	82	92	84	76	71	
7457970	84	94	88	93	81	
7457971	78	79	86	80	70	
7457972	77	78	87	76	64	
7457973	75	84	80	70	61	
7457975	64	62	74	62	49	
Blank	72	81	92	66	58	
MS	77	78	87	76	64	
MSD	75	84	80	70	61	
OPR	75	82	90	74	69	

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473208
Reported: 05/21/14 at 04:47 PM

Surrogate Quality Control

Limits:	28-136	29-147	28-143	26-138	17-157

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

A-13013
G-1473208
S-745796B-75

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/8/2014
CarrierName: FedEx
AirbillNo: 801785869961

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140508-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
EB-050814	5/8/14 15:00	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	X		X																															
EB-050814	5/8/14 15:00	WQ	None	2 - 250 mL Amber	10 day							X			X																								
EB-050814	5/8/14 15:00	WQ	None	2 - 1 L Amber	10 day									X																								
EB-050814	5/8/14 15:00	WQ	None	1 - 250 mL Poly	10 day														X																		
EB-050814	5/8/14 15:00	WQ	HCl	2 - 1 L Amber	10 day																					X											For EFH, silica gel cleanup requi
EB-050814	5/8/14 15:00	WQ	HCl	3 - 40 mL Vial	10 day																				X												on 1/2 the extract. Analyze bot
EB-050814	5/8/14 15:00	WQ	None	1 - 40 mL Vial	10 day												X																				extracts for EFH.

Special Instructions:

Sampler: P. Hartman

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Stephanie Lypeal	05/09/14	1600									
										5/9/14	0915

SSFL Phase 3 Chain of Custody

CDM Smith A-13013

DateShipped: 5/8/2014 G-1473208

CarrierName: FedEx S-745796B-75

AirbillNo: 801785869961

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20140508-02

Cooler #: 2

Lab: Lancaster

Lab Phone: 717-556-7259

Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7470 (Water)	Mercury 7471 (Soil)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc. Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
FDG-SL-511-SA5C-SB-0.0-0.5	5/8/14 09:40	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X		X																							
FDG-SL-511-SA5C-SB-0.0-0.5	5/8/14 09:40	SO	None	1 - 4 oz glass	10 day													X																						
FDG-SL-511-SA5C-SB-2.0-3.0	5/8/14 11:05	SO	None	1 - SS-Sleeve	10 day	X	X					X		X	X		X																							
FDG-SL-511-SA5C-SB-2.0-3.0	5/8/14 11:05	SO	None	1 - 4 oz glass	10 day													X																						
FDG-SL-511-SA5C-SB-2.0-3.0	5/8/14 11:05	SO	None	1 - 16 oz glass	10 day	X	X					X		X	X		X																							
FDG-SL-749-SA5C-SB-0.0-0.5MS	5/8/14 13:30	SO	None	6 - SS-Sleeve	10 day	X	X					X		X	X		X																							MS/MSD
FDG-SL-749-SA5C-SB-0.0-0.5MS	5/8/14 13:30	SO	None	1 - 8 oz glass	10 day													X																						MS/MSD
FDG-SL-1049-SA5C-SB-0.0-0.5	5/8/14 14:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X		X																							
FDG-SL-1049-SA5C-SB-0.0-0.5	5/8/14 14:00	SO	None	1 - 4 oz glass	10 day													X																						

Special Instructions:

Sampler: Whitney Treadway

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Steff Myers	05/08/14	1600									
										5/9/14	0915

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Sample Administration Receipt Documentation Log

Doc Log ID: 14075

Group Number(s): 1473208

Client: CDM Smith

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/09/2014 9:15
Number of Packages:	2	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	0
Custody Seal Present:	Yes	Trip Blank Type:	N/A
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Joseph Gruber (5200) at 10:40 on 05/09/2014

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT131	1.2	DT	Wet	Y	Bagged	N	N
2	DT131	0.9	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

May 27, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/13/2014
Group Number: 1473877
SDG: PH174
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB-051214 Water	7461252
SVL-501-SA5B-SB-0.75-1.25 Soil	7461253

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: TB-051214 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7461252
LL Group # 1473877
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/12/2014 08:00

Submitted: 05/13/2014 09:25
Reported: 05/27/2014 14:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

501TB SDG#: PH174-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	5	U	5	0.5	1
10335	Benzene	71-43-2	5	U	5	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	5	U	5	0.5	1
10335	Bromoform	75-25-2	5	U	5	0.5	1
10335	Bromomethane	74-83-9	5	U	5	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	5	U	5	0.5	1
10335	Chlorobenzene	108-90-7	5	U	5	0.5	1
10335	Chloroethane	75-00-3	5	U	5	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	5	U	5	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	5	U	5	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	5	U	5	0.5	1
10335	1,2-Dibromoethane	106-93-4	5	U	5	0.5	1
10335	Dibromomethane	74-95-3	5	U	5	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	5	U	5	0.5	1
10335	1,1-Dichloroethane	75-34-3	5	U	5	0.5	1
10335	1,2-Dichloroethane	107-06-2	5	U	5	0.5	1
10335	1,1-Dichloroethene	75-35-4	5	U	5	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.5	1
10335	1,2-Dichloropropane	78-87-5	5	U	5	0.5	1
10335	1,3-Dichloropropane	142-28-9	5	U	5	0.5	1
10335	2,2-Dichloropropane	594-20-7	5	U	5	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.5	1
10335	Ethyl t-butyl ether	637-92-3	5	U	5	0.5	1
10335	Ethylbenzene	100-41-4	5	U	5	0.5	1
10335	Freon 113	76-13-1	5	U	5	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: TB-051214 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7461252
LL Group # 1473877
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/12/2014 08:00

Submitted: 05/13/2014 09:25
Reported: 05/27/2014 14:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

501TB SDG#: PH174-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	5	U	5	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	5	U	5	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	5	U	5	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.5	1
10335	Tetrachloroethene	127-18-4	5	U	5	0.5	1
10335	Toluene	108-88-3	5	U	5	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	5	U	5	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	5	U	5	0.5	1
10335	Trichloroethene	79-01-6	5	U	5	0.5	1
10335	Trichlorofluoromethane	75-69-4	5	U	5	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	5	U	5	0.5	1
10335	m+p-Xylene	179601-23-1	5	U	5	0.5	1
10335	o-Xylene	95-47-6	5	U	5	0.5	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: chlorotrifluoroethene.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141392AA	05/19/2014 23:20	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141392AA	05/19/2014 23:20	Kevin A Sposito	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-501-SA5B-SB-0.75-1.25 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7461253
LL Group # 1473877
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/12/2014 14:50 by RE

Submitted: 05/13/2014 09:25
Reported: 05/27/2014 14:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50175 SDG#: PH174-02*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	Acetone	67-64-1	18	U	18	6	0.81
10237	Acrolein	107-02-8	89	U	89	18	0.81
10237	Acrylonitrile	107-13-1	18	U	18	4	0.81
10237	t-Amyl methyl ether	994-05-8	4	U	4	0.9	0.81
10237	Benzene	71-43-2	4	U	4	0.4	0.81
10237	Bromobenzene	108-86-1	4	U	4	0.9	0.81
10237	Bromochloromethane	74-97-5	4	U	4	0.9	0.81
10237	Bromodichloromethane	75-27-4	4	U	4	0.9	0.81
10237	Bromoform	75-25-2	4	U	4	0.9	0.81
10237	Bromomethane	74-83-9	4	U	4	2	0.81
10237	2-Butanone	78-93-3	9	U	9	4	0.81
10237	t-Butyl alcohol	75-65-0	44	U	44	18	0.81
10237	n-Butylbenzene	104-51-8	4	U	4	0.9	0.81
10237	sec-Butylbenzene	135-98-8	4	U	4	0.9	0.81
10237	tert-Butylbenzene	98-06-6	4	U	4	0.9	0.81
10237	Carbon Disulfide	75-15-0	4	U	4	0.9	0.81
10237	Carbon Tetrachloride	56-23-5	4	U	4	0.9	0.81
10237	Chlorobenzene	108-90-7	4	U	4	0.9	0.81
10237	Chloroethane	75-00-3	4	U	4	2	0.81
10237	2-Chloroethyl Vinyl Ether	110-75-8	9	U	9	2	0.81
10237	Chloroform	67-66-3	4	U	4	0.9	0.81
10237	1-Chlorohexane	544-10-5	4	U	4	0.9	0.81
10237	Chloromethane	74-87-3	4	U	4	2	0.81
10237	2-Chlorotoluene	95-49-8	4	U	4	0.9	0.81
10237	4-Chlorotoluene	106-43-4	4	U	4	0.9	0.81
10237	Chlorotrifluoroethene	79-38-9	4	U	4	2	0.81
10237	1,2-Dibromo-3-chloropropane	96-12-8	4	U	4	2	0.81
10237	Dibromochloromethane	124-48-1	4	U	4	0.9	0.81
10237	1,2-Dibromoethane	106-93-4	4	U	4	0.9	0.81
10237	Dibromomethane	74-95-3	4	U	4	0.9	0.81
10237	1,2-Dichlorobenzene	95-50-1	4	U	4	0.9	0.81
10237	1,3-Dichlorobenzene	541-73-1	4	U	4	0.9	0.81
10237	1,4-Dichlorobenzene	106-46-7	4	U	4	0.9	0.81
10237	Dichlorodifluoromethane	75-71-8	4	U	4	2	0.81
10237	1,1-Dichloroethane	75-34-3	4	U	4	0.9	0.81
10237	1,2-Dichloroethane	107-06-2	4	U	4	0.9	0.81
10237	1,1-Dichloroethene	75-35-4	4	U	4	0.9	0.81
10237	cis-1,2-Dichloroethene	156-59-2	4	U	4	0.9	0.81
10237	trans-1,2-Dichloroethene	156-60-5	4	U	4	0.9	0.81
10237	1,2-Dichloropropane	78-87-5	4	U	4	0.9	0.81
10237	1,3-Dichloropropane	142-28-9	4	U	4	0.9	0.81
10237	2,2-Dichloropropane	594-20-7	4	U	4	0.9	0.81
10237	1,1-Dichloropropene	563-58-6	4	U	4	0.9	0.81
10237	cis-1,3-Dichloropropene	10061-01-5	4	U	4	0.9	0.81
10237	trans-1,3-Dichloropropene	10061-02-6	4	U	4	0.9	0.81
10237	Ethyl t-butyl ether	637-92-3	4	U	4	0.9	0.81
10237	Ethylbenzene	100-41-4	4	U	4	0.9	0.81
10237	Freon 113	76-13-1	4	U	4	2	0.81
10237	Freon 133a	75-88-7	4	U	4	2	0.81
10237	Hexachlorobutadiene	87-68-3	4	U	4	2	0.81
10237	2-Hexanone	591-78-6	9	U	9	3	0.81

*=This limit was used in the evaluation of the final result

Sample Description: SVL-501-SA5B-SB-0.75-1.25 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7461253
LL Group # 1473877
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/12/2014 14:50 by RE

Submitted: 05/13/2014 09:25
Reported: 05/27/2014 14:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50175 SDG#: PH174-02*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	di-Isopropyl ether	108-20-3	4	U	4	0.9	0.81
10237	Isopropylbenzene	98-82-8	4	U	4	0.9	0.81
10237	p-Isopropyltoluene	99-87-6	4	U	4	0.9	0.81
10237	Methyl Iodide	74-88-4	4	U	4	3	0.81
10237	Methyl Tertiary Butyl Ether	1634-04-4	4	U	4	0.4	0.81
10237	4-Methyl-2-pentanone	108-10-1	9	U	9	3	0.81
10237	Methylene Chloride	75-09-2	4	U	4	2	0.81
10237	n-Propylbenzene	103-65-1	4	U	4	0.9	0.81
10237	Styrene	100-42-5	4	U	4	0.9	0.81
10237	1,1,1,2-Tetrachloroethane	630-20-6	4	U	4	0.9	0.81
10237	1,1,2,2-Tetrachloroethane	79-34-5	4	U	4	0.9	0.81
10237	Tetrachloroethene	127-18-4	4	U	4	0.9	0.81
10237	Toluene	108-88-3	4	U	4	0.9	0.81
10237	1,2,3-Trichlorobenzene	87-61-6	4	U	4	0.9	0.81
10237	1,2,4-Trichlorobenzene	120-82-1	4	U	4	0.9	0.81
10237	1,1,1-Trichloroethane	71-55-6	4	U	4	0.9	0.81
10237	1,1,2-Trichloroethane	79-00-5	4	U	4	0.9	0.81
10237	Trichloroethene	79-01-6	4	U	4	0.9	0.81
10237	Trichlorofluoromethane	75-69-4	4	U	4	2	0.81
10237	1,2,3-Trichloropropane	96-18-4	4	U	4	0.9	0.81
10237	1,2,4-Trimethylbenzene	95-63-6	4	U	4	0.9	0.81
10237	1,3,5-Trimethylbenzene	108-67-8	4	U	4	0.9	0.81
10237	Vinyl Acetate	108-05-4	9	U	9	2	0.81
10237	Vinyl Chloride	75-01-4	4	U	4	0.9	0.81
10237	m+p-Xylene	179601-23-1	4	U	4	0.9	0.81
10237	o-Xylene	95-47-6	4	U	4	0.9	0.81
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	9.4		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141431AA	05/23/2014 17:41	Christopher G Torres	0.81
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201413334483	05/13/2014 16:21	Lois E Hiltz	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-501-SA5B-SB-0.75-1.25 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7461253
LL Group # 1473877
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/12/2014 14:50 by RE

Submitted: 05/13/2014 09:25
Reported: 05/27/2014 14:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50175 SDG#: PH174-02*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201413334483	05/13/2014 16:21	Lois E Hiltz	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201413334483	05/13/2014 16:18	Lois E Hiltz	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14136162401A	05/16/2014 18:04	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473877
Reported: 05/27/14 at 02:36 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B141431AA	Sample number(s): 7461253								
Acetone	20 U	20.	7	ug/kg	98		41-149		
Acrolein	100 U	100.	20	ug/kg	79		50-137		
Acrylonitrile	20 U	20.	4	ug/kg	87		58-123		
t-Amyl methyl ether	5 U	5.	1	ug/kg	92		63-130		
Benzene	5 U	5.	0.5	ug/kg	97		80-120		
Bromobenzene	5 U	5.	1	ug/kg	105		78-120		
Bromochloromethane	5 U	5.	1	ug/kg	121		75-129		
Bromodichloromethane	5 U	5.	1	ug/kg	102		75-120		
Bromoform	5 U	5.	1	ug/kg	107		70-126		
Bromomethane	5 U	5.	2	ug/kg	109		32-162		
2-Butanone	10 U	10.	4	ug/kg	94		47-136		
t-Butyl alcohol	50 U	50.	20	ug/kg	118		66-133		
n-Butylbenzene	5 U	5.	1	ug/kg	97		72-120		
sec-Butylbenzene	5 U	5.	1	ug/kg	99		69-120		
tert-Butylbenzene	5 U	5.	1	ug/kg	95		75-120		
Carbon Disulfide	5 U	5.	1	ug/kg	90		63-128		
Carbon Tetrachloride	5 U	5.	1	ug/kg	113		69-130		
Chlorobenzene	5 U	5.	1	ug/kg	102		80-120		
Chloroethane	5 U	5.	2	ug/kg	102		17-171		
2-Chloroethyl Vinyl Ether	10 U	10.	2	ug/kg	83		52-134		
Chloroform	5 U	5.	1	ug/kg	113		80-120		
1-Chlorohexane	5 U	5.	1	ug/kg	93		70-130		
Chloromethane	5 U	5.	2	ug/kg	89		56-120		
2-Chlorotoluene	5 U	5.	1	ug/kg	99		78-120		
4-Chlorotoluene	5 U	5.	1	ug/kg	98		79-120		
Chlorotrifluoroethene	5 U	5.	2	ug/kg	64		22-131		
1,2-Dibromo-3-chloropropane	5 U	5.	2	ug/kg	90		50-132		
Dibromochloromethane	5 U	5.	1	ug/kg	104		77-120		
1,2-Dibromoethane	5 U	5.	1	ug/kg	102		80-120		
Dibromomethane	5 U	5.	1	ug/kg	101		75-120		
1,2-Dichlorobenzene	5 U	5.	1	ug/kg	102		80-120		
1,3-Dichlorobenzene	5 U	5.	1	ug/kg	104		80-120		
1,4-Dichlorobenzene	5 U	5.	1	ug/kg	102		80-120		
Dichlorodifluoromethane	5 U	5.	2	ug/kg	96		26-137		
1,1-Dichloroethane	5 U	5.	1	ug/kg	101		71-122		
1,2-Dichloroethane	5 U	5.	1	ug/kg	120		66-136		
1,1-Dichloroethene	5 U	5.	1	ug/kg	109		73-129		
cis-1,2-Dichloroethene	5 U	5.	1	ug/kg	101		80-120		
trans-1,2-Dichloroethene	5 U	5.	1	ug/kg	111		79-120		
1,2-Dichloropropane	5 U	5.	1	ug/kg	92		77-120		
1,3-Dichloropropane	5 U	5.	1	ug/kg	97		73-120		
2,2-Dichloropropane	5 U	5.	1	ug/kg	95		72-123		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473877
Reported: 05/27/14 at 02:36 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/kg	102		77-120		
cis-1,3-Dichloropropene	5	U	5.	1	ug/kg	91		74-120		
trans-1,3-Dichloropropene	5	U	5.	1	ug/kg	93		69-120		
Ethyl t-butyl ether	5	U	5.	1	ug/kg	90		59-134		
Ethylbenzene	5	U	5.	1	ug/kg	102		80-120		
Freon 113	5	U	5.	2	ug/kg	97		64-137		
Freon 133a	5	U	5.	2	ug/kg	98		78-120		
Hexachlorobutadiene	5	U	5.	2	ug/kg	118		46-130		
2-Hexanone	10	U	10.	3	ug/kg	83		40-129		
di-Isopropyl ether	5	U	5.	1	ug/kg	93		68-128		
Isopropylbenzene	5	U	5.	1	ug/kg	106		76-120		
p-Isopropyltoluene	5	U	5.	1	ug/kg	92		69-120		
Methyl Iodide	5	U	5.	3	ug/kg	116		72-130		
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/kg	102		69-126		
4-Methyl-2-pentanone	10	U	10.	3	ug/kg	85		43-133		
Methylene Chloride	5	U	5.	2	ug/kg	105		80-124		
n-Propylbenzene	5	U	5.	1	ug/kg	100		77-120		
Styrene	5	U	5.	1	ug/kg	103		76-120		
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/kg	106		80-120		
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/kg	91		71-123		
Tetrachloroethene	5	U	5.	1	ug/kg	107		78-120		
Toluene	5	U	5.	1	ug/kg	96		80-120		
1,2,3-Trichlorobenzene	5	U	5.	1	ug/kg	107		64-120		
1,2,4-Trichlorobenzene	5	U	5.	1	ug/kg	102		68-120		
1,1,1-Trichloroethane	5	U	5.	1	ug/kg	100		63-135		
1,1,2-Trichloroethane	5	U	5.	1	ug/kg	104		80-120		
Trichloroethene	5	U	5.	1	ug/kg	105		80-120		
Trichlorofluoromethane	5	U	5.	2	ug/kg	105		58-133		
1,2,3-Trichloropropane	5	U	5.	1	ug/kg	101		71-123		
1,2,4-Trimethylbenzene	5	U	5.	1	ug/kg	100		79-120		
1,3,5-Trimethylbenzene	5	U	5.	1	ug/kg	103		78-120		
Vinyl Acetate	10	U	10.	2	ug/kg	71		40-127		
Vinyl Chloride	5	U	5.	1	ug/kg	93		59-120		
m+p-Xylene	5	U	5.	1	ug/kg	101		80-120		
o-Xylene	5	U	5.	1	ug/kg	99		80-120		
Batch number: Y141392AA	Sample number(s): 7461252									
Acetone	20	U	20.	6	ug/l	84	84	43-149	1	30
Acrolein	100	U	100.	40	ug/l	87	87	52-129	1	30
Acrylonitrile	20	U	20.	4	ug/l	85	88	62-120	4	30
t-Amyl methyl ether	5	U	5.	0.5	ug/l	103	104	75-120	1	30
Benzene	5	U	5.	0.5	ug/l	102	101	78-120	1	30
Bromobenzene	5	U	5.	1	ug/l	98	97	80-120	2	30
Bromochloromethane	5	U	5.	1	ug/l	89	89	80-121	0	30
Bromodichloromethane	5	U	5.	0.5	ug/l	92	92	73-120	0	30
Bromoform	5	U	5.	0.5	ug/l	83	82	61-120	1	30
Bromomethane	5	U	5.	0.5	ug/l	93	94	58-120	1	30
2-Butanone	10	U	10.	3	ug/l	91	92	54-133	1	30
t-Butyl alcohol	50	U	50.	5	ug/l	99	100	75-120	1	30
n-Butylbenzene	5	U	5.	1	ug/l	95	95	68-120	1	30
sec-Butylbenzene	5	U	5.	1	ug/l	98	97	80-120	0	30
tert-Butylbenzene	5	U	5.	1	ug/l	97	95	73-120	1	30
Carbon Disulfide	5	U	5.	1	ug/l	89	91	58-126	2	30
Carbon Tetrachloride	5	U	5.	0.5	ug/l	101	101	74-130	0	30
Chlorobenzene	5	U	5.	0.5	ug/l	100	100	80-120	0	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473877
Reported: 05/27/14 at 02:36 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroethane	5 U	5.	0.5	ug/l	83	83	56-120	0	30
2-Chloroethyl Vinyl Ether	10 U	10.	2	ug/l	98	99	54-126	1	30
Chloroform	5 U	5.	0.5	ug/l	100	100	80-122	0	30
1-Chlorohexane	5 U	5.	1	ug/l	105	104	80-120	0	30
Chloromethane	5 U	5.	0.5	ug/l	97	97	63-120	0	30
2-Chlorotoluene	5 U	5.	1	ug/l	98	98	80-120	1	30
4-Chlorotoluene	5 U	5.	1	ug/l	99	97	80-120	2	30
Chlorotrifluoroethene	5 U	5.	2	ug/l	42*	42*	47-120	0	30
1,2-Dibromo-3-chloropropane	5 U	5.	2	ug/l	93	94	56-120	2	30
Dibromochloromethane	5 U	5.	0.5	ug/l	93	94	72-120	1	30
1,2-Dibromoethane	5 U	5.	0.5	ug/l	101	100	76-120	1	30
Dibromomethane	5 U	5.	0.5	ug/l	96	97	80-120	1	30
1,2-Dichlorobenzene	5 U	5.	1	ug/l	99	98	80-120	1	30
1,3-Dichlorobenzene	5 U	5.	1	ug/l	99	98	80-120	2	30
1,4-Dichlorobenzene	5 U	5.	1	ug/l	100	97	80-120	2	30
Dichlorodifluoromethane	5 U	5.	0.5	ug/l	106	105	48-132	0	30
1,1-Dichloroethane	5 U	5.	0.5	ug/l	99	99	80-120	1	30
1,2-Dichloroethane	5 U	5.	0.5	ug/l	99	99	65-135	0	30
1,1-Dichloroethene	5 U	5.	0.5	ug/l	102	104	76-124	1	30
cis-1,2-Dichloroethene	5 U	5.	0.5	ug/l	101	101	80-120	0	30
trans-1,2-Dichloroethene	5 U	5.	0.5	ug/l	104	104	80-120	0	30
1,2-Dichloropropane	5 U	5.	0.5	ug/l	101	100	80-120	1	30
1,3-Dichloropropane	5 U	5.	0.5	ug/l	98	98	80-120	0	30
2,2-Dichloropropane	5 U	5.	0.5	ug/l	100	100	67-124	0	30
1,1-Dichloropropene	5 U	5.	1	ug/l	108	108	80-120	0	30
cis-1,3-Dichloropropene	5 U	5.	0.5	ug/l	96	95	80-120	0	30
trans-1,3-Dichloropropene	5 U	5.	0.5	ug/l	95	95	76-120	0	30
Ethyl t-butyl ether	5 U	5.	0.5	ug/l	102	103	74-120	1	30
Ethylbenzene	5 U	5.	0.5	ug/l	99	98	79-120	1	30
Freon 113	5 U	5.	2	ug/l	109	110	67-127	0	30
Freon 133a	5 U	5.	2	ug/l	85	87	46-152	2	30
Hexachlorobutadiene	5 U	5.	2	ug/l	86	84	51-125	2	30
2-Hexanone	10 U	10.	3	ug/l	92	92	44-126	0	30
di-Isopropyl ether	5 U	5.	0.5	ug/l	106	106	65-120	1	30
Isopropylbenzene	5 U	5.	1	ug/l	98	98	77-120	1	30
p-Isopropyltoluene	5 U	5.	1	ug/l	95	94	80-120	1	30
Methyl Iodide	5 U	5.	0.5	ug/l	106	106	75-128	0	30
Methyl Tertiary Butyl Ether	5 U	5.	0.5	ug/l	102	102	75-120	0	30
4-Methyl-2-pentanone	10 U	10.	3	ug/l	91	92	51-124	0	30
Methylene Chloride	5 U	5.	2	ug/l	100	101	80-120	1	30
n-Propylbenzene	5 U	5.	1	ug/l	99	99	80-120	0	30
Styrene	5 U	5.	1	ug/l	99	99	80-120	0	30
1,1,1,2-Tetrachloroethane	5 U	5.	0.5	ug/l	99	98	80-120	1	30
1,1,2,2-Tetrachloroethane	5 U	5.	0.5	ug/l	99	98	70-120	1	30
Tetrachloroethene	5 U	5.	0.5	ug/l	99	99	80-120	0	30
Toluene	5 U	5.	0.5	ug/l	101	101	80-120	0	30
1,2,3-Trichlorobenzene	5 U	5.	1	ug/l	96	95	58-126	1	30
1,2,4-Trichlorobenzene	5 U	5.	1	ug/l	96	95	65-120	0	30
1,1,1-Trichloroethane	5 U	5.	0.5	ug/l	92	93	66-126	1	30
1,1,2-Trichloroethane	5 U	5.	0.5	ug/l	97	98	80-120	1	30
Trichloroethene	5 U	5.	0.5	ug/l	103	103	80-120	0	30
Trichlorofluoromethane	5 U	5.	0.5	ug/l	108	107	65-130	2	30
1,2,3-Trichloropropane	5 U	5.	1	ug/l	97	96	76-120	1	30
1,2,4-Trimethylbenzene	5 U	5.	1	ug/l	100	98	74-120	2	30
1,3,5-Trimethylbenzene	5 U	5.	1	ug/l	99	98	74-120	1	30
Vinyl Acetate	10 U	10.	2	ug/l	79	80	56-135	1	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473877
Reported: 05/27/14 at 02:36 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vinyl Chloride	5	U	5.	0.5	ug/l	102	103	63-120	1	30
m+p-Xylene	5	U	5.	0.5	ug/l	98	98	80-120	0	30
o-Xylene	5	U	5.	0.5	ug/l	99	99	80-120	0	30
Batch number: 14136162401A	Sample number(s): 7461253									
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: B141431AA	Sample number(s): 7461253 UNSPK: P466839								
Acetone	129	113	31-195	11	30				
Acrolein	67	81	10-165	21	30				
Acrylonitrile	96	82	48-139	13	30				
t-Amyl methyl ether	111	94	50-132	14	30				
Benzene	123	101	55-143	17	30				
Bromobenzene	130	109	43-139	15	30				
Bromochloromethane	127	120	60-137	3	30				
Bromodichloromethane	126	104	53-136	17	30				
Bromoform	131	105	50-144	20	30				
Bromomethane	120	124	42-168	6	30				
2-Butanone	110	95	37-163	13	30				
t-Butyl alcohol	117	115	47-153	0	30				
n-Butylbenzene	117	101	30-146	12	30				
sec-Butylbenzene	131	102	33-157	22	30				
tert-Butylbenzene	125	108	41-152	13	30				
Carbon Disulfide	118	94	48-146	20	30				
Carbon Tetrachloride	152	123	51-165	18	30				
Chlorobenzene	130	102	49-135	22	30				
Chloroethane	113	117	39-152	6	30				
2-Chloroethyl Vinyl Ether	76	92	32-139	21	30				
Chloroform	144*	119	61-142	17	30				
1-Chlorohexane	104	98	70-130	4	30				
Chloromethane	98	99	36-143	4	30				
2-Chlorotoluene	123	104	42-146	14	30				
4-Chlorotoluene	122	104	39-145	13	30				
Chlorotrifluoroethene	72	76	70-130	3	30				
1,2-Dibromo-3-chloropropane	98	90	34-165	7	30				
Dibromochloromethane	129*	105	51-128	18	30				
1,2-Dibromoethane	122	99	54-129	19	30				
Dibromomethane	124	103	57-130	17	30				
1,2-Dichlorobenzene	123	108	36-133	11	30				
1,3-Dichlorobenzene	128	104	34-134	19	30				
1,4-Dichlorobenzene	122	103	35-136	14	30				
Dichlorodifluoromethane	121	122	26-151	3	30				
1,1-Dichloroethane	127	103	63-142	18	30				
1,2-Dichloroethane	149*	120	54-143	19	30				
1,1-Dichloroethene	142	117	61-149	17	30				
cis-1,2-Dichloroethene	128	105	67-135	18	30				

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473877
Reported: 05/27/14 at 02:36 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
trans-1,2-Dichloroethene	140	113	64-144	19	30				
1,2-Dichloropropane	116	97	54-144	16	30				
1,3-Dichloropropane	114	92	51-140	18	30				
2,2-Dichloropropane	129	104	53-147	19	30				
1,1-Dichloropropene	134	110	54-145	17	30				
cis-1,3-Dichloropropene	117	93	45-137	20	30				
trans-1,3-Dichloropropene	113	92	51-134	18	30				
Ethyl t-butyl ether	110	94	58-124	13	30				
Ethylbenzene	131	104	44-141	21	30				
Freon 113	142	115	56-156	18	30				
Freon 133a	101	107	61-131	4	30				
Hexachlorobutadiene	139	115	10-155	17	30				
2-Hexanone	96	81	32-160	15	30				
di-Isopropyl ether	112	94	59-133	15	30				
Isopropylbenzene	136	110	38-144	19	30				
p-Isopropyltoluene	117	100	29-152	13	30				
Methyl Iodide	148*	120	52-139	18	30				
Methyl Tertiary Butyl Ether	121	101	55-129	15	30				
4-Methyl-2-pentanone	100	83	46-139	16	30				
Methylene Chloride	188*	238*	60-149	26	30				
n-Propylbenzene	128	109	39-157	14	30				
Styrene	128	102	35-134	20	30				
1,1,1,2-Tetrachloroethane	134	106	55-139	21	30				
1,1,2,2-Tetrachloroethane	104	89	29-182	13	30				
Tetrachloroethene	151*	122	42-149	19	30				
Toluene	120	100	50-146	16	30				
1,2,3-Trichlorobenzene	111	96	10-140	12	30				
1,2,4-Trichlorobenzene	114	98	10-136	12	30				
1,1,1-Trichloroethane	131	106	52-146	19	30				
1,1,2-Trichloroethane	123	99	58-152	19	30				
Trichloroethene	132	109	53-144	17	30				
Trichlorofluoromethane	127	127	47-163	2	30				
1,2,3-Trichloropropane	120	98	36-180	18	30				
1,2,4-Trimethylbenzene	127	108	37-149	14	30				
1,3,5-Trimethylbenzene	126	110	38-150	11	30				
Vinyl Acetate	30	23	21-139	25	30				
Vinyl Chloride	104	108	50-154	6	30				
m+p-Xylene	129	104	44-137	19	30				
o-Xylene	124	99	42-137	20	30				
Batch number: 14136162401A Sample number(s): 7461253 BKG: P457971									
14a Moisture Content by 160.3						5.0	5.0	0	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12a Volatile Organics EPA8260B

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473877
Reported: 05/27/14 at 02:36 PM

Surrogate Quality Control

Batch number: B141431AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7461253	110	105	99	93
Blank	110	100	99	97
LCS	108	106	102	105
MS	110	103	101	104
MSD	111	105	97	95
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141392AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7461252	98	99	99	96
Blank	99	100	99	95
LCS	99	102	100	100
LCSD	98	102	101	100
Limits:	86-118	80-120	88-110	86-115

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

acct#13013 Gp#1473877 sample# 7461252-53

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/12/2014

CarrierName: FedEx

AirbillNo: 7988 3097 7226

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20140512-02

Cooler #: 1

Lab: Lancaster

Lab Phone: 717-556-7259

Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate - Nitrite - TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
TB-051214	5/12/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																		X																	
SL-501-SA5B-SV-0.75-1.25	5/12/14 14:50	SO	None	3 - Encore	10 day																		X																	
SL-501-SA5B-SV-0.75-1.25	5/12/14 14:50	SO	None	1 - 4 oz glass	10 day																		X																	Soil Moisture

Special Instructions:

Sampler: Rob Elles

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Shelly Mypel	05/12/2014	1600									
										5/13/14	6925

Nicole Maljovec 13013/1473877/746252-3 NM 5/17/14

From: Mysel, Stefanie <MyselSJ@cdmsmith.com>
Sent: Tuesday, May 13, 2014 4:10 PM
To: Nicole Maljovec
Cc: Hartman, Pamela; Zakowski, Cherie; Burgesser, Todd
Subject: SSFL COC 05/12/2014 Revision
Attachments: Lancaster 051214 COC(2)-REV.pdf

Nicole,

COC 2 (soil vapor sampling) from yesterday was edited. The sample name was changed. I have attached a relinquished revised COC for your records.

Stefanie J. Mysel
Geologist

CDM Smith
111 Academy Way
Suite 150
Irvine, CA 92617
Direct: 949-930-9877
Main: 949-752-5452
Cell: 949-579-0634
Email: myselsj@cdmsmith.com<mailto:myselsj@cdmsmith.com>

13013/1473877/7461252-53 Revised COC NM 5/17/14

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/12/2014
CarrierName: FedEx
AirbillNo: 798830977226

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140512-02
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7470 (Water) Mercury 7471 (Soil)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate Confirm 6850/6860	Perchlorate 314.0/331	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
TB-051214	5/12/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																																	
SVL-501-SA5B-SB-0.75-1.25	5/12/14 14:50	SO	None	3 - Encore	10 day																	X																
SVL-501-SA5B-SB-0.75-1.25	5/12/14 14:50	SO	None	1 - 4 oz glass	10 day																	X																Soil Moisture

Special Instructions:

Sampler: Rob Ellis

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Greg Mycelos	5/12/2014	1600									

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 14326

Group Number(s): 1473877

Client: CDM Smith

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/13/2014 9:25
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	3
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	N/A		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Joseph Gruber (5200) at 09:53 on 05/13/2014

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	3258-IR	2.9	IR	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

May 23, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/13/2014
Group Number: 1473878
SDG: PH175
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
FDG-SL-748-SA5C-SB-0.0-0.5 Soil	7461254
FDG-SL-748-SA5C-SB-4.0-5.0 Soil	7461255

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: FDG-SL-748-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7461254
LL Group # 1473878
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/12/2014 08:32 by WT

Submitted: 05/13/2014 09:25
Reported: 05/23/2014 10:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

748-0 SDG#: PH175-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.71	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	0.85	J	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	3.0		1.8	0.71	1
12969	Benzo(a)pyrene	50-32-8	2.8		1.8	0.71	1
12969	Benzo(b)fluoranthene	205-99-2	6.6		1.8	0.71	1
12969	Benzo(e)pyrene	192-97-2	3.8	J	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	2.6		1.8	0.71	1
12969	Benzo(k)fluoranthene	207-08-9	1.9		1.8	0.71	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.4	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.4	1
12969	Chrysene	218-01-9	6.0		1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.71	1
12969	Diethylphthalate	84-66-2	19	U	19	6.4	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.4	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	13	J	19	6.4	1
12969	Fluoranthene	206-44-0	7.0		1.8	0.71	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.71	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.9		1.8	0.71	1
12969	1-Methylnaphthalene	90-12-0	1.2	J	1.8	0.71	1
12969	2-Methylnaphthalene	91-57-6	1.7	J	1.8	0.71	1
12969	Naphthalene	91-20-3	3.6		1.8	0.71	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.71	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.4	1
12969	Phenanthrene	85-01-8	5.7		1.8	0.71	1
12969	Pyrene	129-00-0	6.3		1.8	0.71	1
Perchlorate	**SW-846 6850 1/2007**		**ug/kg**		**ug/kg**	**ug/kg**	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.4	U	5.4	2.2	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.4	1
13099	PCB-1242	53469-21-9	18	U	18	4.4	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	22		18	4.7	1
13099	PCB-1260	11096-82-5	18	U	18	4.2	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	25,000		42.8	7.72	1
06944	Antimony	7440-36-0	4.28	U	4.28	0.792	1
06935	Arsenic	7440-38-2	5.96		4.28	0.749	1
06946	Barium	7440-39-3	122		1.07	0.0353	1
06947	Beryllium	7440-41-7	0.888	J	1.07	0.0717	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-748-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7461254
LL Group # 1473878
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/12/2014 08:32 by WT

Submitted: 05/13/2014 09:25
Reported: 05/23/2014 10:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

748-0 SDG#: PH175-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
07914	Boron	7440-42-8	6.28	J	10.7	0.899	1
06949	Cadmium	7440-43-9	0.305	J	1.07	0.0814	1
01650	Calcium	7440-70-2	26,600		21.4	3.58	1
06951	Chromium	7440-47-3	30.9		3.21	0.171	1
06952	Cobalt	7440-48-4	9.12		1.07	0.106	1
06953	Copper	7440-50-8	20.8		2.14	0.310	1
01654	Iron	7439-89-6	27,600		85.7	7.75	2
06955	Lead	7439-92-1	18.0		3.21	0.535	1
01656	Lithium	7439-93-2	22.5		4.3	0.36	1
01657	Magnesium	7439-95-4	6,100		10.7	1.79	1
06958	Manganese	7439-96-5	431		1.07	0.0889	1
06960	Molybdenum	7439-98-7	2.14	U	2.14	0.182	1
06961	Nickel	7440-02-0	16.5		2.14	0.139	1
10145	Phosphorus	7723-14-0	454		10.7	3.09	1
01662	Potassium	7440-09-7	4,910		107	8.93	1
01667	Sodium	7440-23-5	159		107	17.9	1
06969	Tin	7440-31-5	3.18	J	10.7	0.236	1
06970	Titanium	7440-32-6	1,210		1.07	0.182	1
06971	Vanadium	7440-62-2	60.4		1.07	0.139	1
06972	Zinc	7440-66-6	149		4.28	0.214	1
10146	Zirconium	7440-67-7	5.40		5.35	0.899	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.351	J	0.428	0.107	2
06142	Silver	7440-22-4	0.200	J	0.214	0.0278	2
06144	Strontium	7440-24-6	79.2		0.428	0.0728	2
06145	Thallium	7440-28-0	0.390		0.214	0.0321	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0201		0.0167	0.0100	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.74		0.0100	0.0100	1
	The pH was measured in water at 22 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	6.6		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-748-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7461254
LL Group # 1473878
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/12/2014 08:32 by WT

Submitted: 05/13/2014 09:25
Reported: 05/23/2014 10:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

748-0 SDG#: PH175-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.193	JQ	1.06	0.0946	1
11031	12378-PeCDD	40321-76-4	0.708	JBQ	5.28	0.127	1
11031	123478-HxCDD	39227-28-6	1.03	JB	5.28	0.135	1
11031	123678-HxCDD	57653-85-7	2.44	J	5.28	0.137	1
11031	123789-HxCDD	19408-74-3	2.31	JB	5.28	0.136	1
11031	1234678-HpCDD	35822-46-9	56.8	B	5.28	0.135	1
11031	OCDD	3268-87-9	607	B	10.6	0.0796	1
11031	2378-TCDF	51207-31-9	0.801	J	1.06	0.109	1
11031	12378-PeCDF	57117-41-6	0.873	JB	5.28	0.0643	1
11031	23478-PeCDF	57117-31-4	0.439	JB	5.28	0.0581	1
11031	123478-HxCDF	70648-26-9	0.591	JB	5.28	0.0941	1
11031	123678-HxCDF	57117-44-9	0.684	JB	5.28	0.0928	1
11031	123789-HxCDF	72918-21-9	0.320	JBQ	5.28	0.0976	1
11031	234678-HxCDF	60851-34-5	0.451	JBQ	5.28	0.0935	1
11031	1234678-HpCDF	67562-39-4	6.20	B	5.28	0.0554	1
11031	1234789-HpCDF	55673-89-7	0.581	JBQ	5.28	0.0614	1
11031	OCDF	39001-02-0	15.3	B	10.6	0.0863	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	1.76				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	75	28 - 130
13C12-123789-HxCDD	74	28 - 130
13C12-1234678-HpCDD	72	23 - 140
13C12-OCDD	64	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	64	24 - 185
13C12-23478-PeCDF	62	21 - 178
13C12-123478-HxCDF	65	26 - 152
13C12-123678-HxCDF	66	26 - 123
13C12-234678-HxCDF	66	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	68	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	52	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-748-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7461254
LL Group # 1473878
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/12/2014 08:32 by WT

Submitted: 05/13/2014 09:25
Reported: 05/23/2014 10:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

748-0 SDG#: PH175-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-748-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7461254
LL Group # 1473878
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/12/2014 08:32 by WT

Submitted: 05/13/2014 09:25
Reported: 05/23/2014 10:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

748-0 SDG#: PH175-01

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14140SLA026	05/22/2014 11:38	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14140SLA026	05/20/2014 17:35	JoElla L Rice	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141360001A	05/16/2014 16:24	Richard A Shober	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141360028A	05/20/2014 23:03	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141360028A	05/19/2014 05:50	Roman Kuropatkin	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141360001A	05/16/2014 08:10	Maria Davenport	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14136002	05/21/2014 15:58	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14136002	05/17/2014 10:25	Brett M Weidman	1
01643	Aluminum	SW-846 6010C	1	141340637004	05/15/2014 21:20	Maria A Orrs	1
06944	Antimony	SW-846 6010C	1	141340637004	05/15/2014 21:20	Maria A Orrs	1
06935	Arsenic	SW-846 6010C	1	141340637004	05/15/2014 21:20	Maria A Orrs	1
06946	Barium	SW-846 6010C	1	141340637004	05/15/2014 21:20	Maria A Orrs	1
06947	Beryllium	SW-846 6010C	1	141340637004	05/15/2014 21:20	Maria A Orrs	1
07914	Boron	SW-846 6010C	1	141340637004	05/15/2014 21:20	Maria A Orrs	1
06949	Cadmium	SW-846 6010C	1	141340637004	05/15/2014 21:20	Maria A Orrs	1
01650	Calcium	SW-846 6010C	1	141340637004	05/15/2014 21:20	Maria A Orrs	1
06951	Chromium	SW-846 6010C	1	141340637004	05/15/2014 21:20	Maria A Orrs	1
06952	Cobalt	SW-846 6010C	1	141340637004	05/15/2014 21:20	Maria A Orrs	1
06953	Copper	SW-846 6010C	1	141340637004	05/15/2014 21:20	Maria A Orrs	1
01654	Iron	SW-846 6010C	1	141340637004	05/16/2014 15:51	Maria A Orrs	2
06955	Lead	SW-846 6010C	1	141340637004	05/15/2014 21:20	Maria A Orrs	1
01656	Lithium	SW-846 6010C	1	141340637004	05/15/2014 21:20	Maria A Orrs	1
01657	Magnesium	SW-846 6010C	1	141340637004	05/15/2014 21:20	Maria A Orrs	1
06958	Manganese	SW-846 6010C	1	141340637004	05/15/2014 21:20	Maria A Orrs	1
06960	Molybdenum	SW-846 6010C	1	141340637004	05/15/2014 21:20	Maria A Orrs	1
06961	Nickel	SW-846 6010C	1	141340637004	05/15/2014 21:20	Maria A Orrs	1
10145	Phosphorus	SW-846 6010C	1	141340637004	05/15/2014 21:20	Maria A Orrs	1
01662	Potassium	SW-846 6010C	1	141340637004	05/15/2014 21:20	Maria A Orrs	1
01667	Sodium	SW-846 6010C	1	141340637004	05/15/2014 21:20	Maria A Orrs	1
06969	Tin	SW-846 6010C	1	141340637004	05/15/2014 21:20	Maria A Orrs	1
06970	Titanium	SW-846 6010C	1	141340637004	05/15/2014 21:20	Maria A Orrs	1
06971	Vanadium	SW-846 6010C	1	141340637004	05/15/2014 21:20	Maria A Orrs	1
06972	Zinc	SW-846 6010C	1	141340637004	05/15/2014 21:20	Maria A Orrs	1
10146	Zirconium	SW-846 6010C	1	141340637004	05/15/2014 21:20	Maria A Orrs	1
06141	Selenium	SW-846 6020A	1	141340637004B	05/16/2014 05:26	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141340637004A	05/16/2014 05:26	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141340637004A	05/16/2014 05:26	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141340637004A	05/16/2014 05:26	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-748-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7461254
LL Group # 1473878
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/12/2014 08:32 by WT

Submitted: 05/13/2014 09:25
Reported: 05/23/2014 10:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

748-0 SDG#: PH175-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	141350638001	05/19/2014 09:17	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141340637004	05/15/2014 07:05	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141350638001	05/16/2014 11:14	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14133039402A	05/13/2014 22:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14136162401A	05/16/2014 18:04	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-748-SA5C-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7461255
LL Group # 1473878
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/12/2014 10:00 by WT

Submitted: 05/13/2014 09:25
Reported: 05/23/2014 10:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

748-4 SDG#: PH175-02*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.71	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.71	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.71	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.71	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.71	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.71	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.4	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.4	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.71	1
12969	Diethylphthalate	84-66-2	19	U	19	6.4	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.4	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	87		19	6.4	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.71	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.71	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.71	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.71	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.71	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.71	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.71	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.4	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.71	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.71	1
Perchlorate	**SW-846 6850 1/2007**		**ug/kg**		**ug/kg**	**ug/kg**	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.3	U	5.3	2.2	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.7	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	17,300		42.8	7.71	1
06944	Antimony	7440-36-0	4.28	U	4.28	0.791	1
06935	Arsenic	7440-38-2	4.58		4.28	0.749	1
06946	Barium	7440-39-3	72.5		1.07	0.0353	1
06947	Beryllium	7440-41-7	0.633	J	1.07	0.0717	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-748-SA5C-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7461255
LL Group # 1473878
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/12/2014 10:00 by WT

Submitted: 05/13/2014 09:25
Reported: 05/23/2014 10:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

748-4 SDG#: PH175-02*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
07914	Boron	7440-42-8	1.40	J	10.7	0.898	1
06949	Cadmium	7440-43-9	1.07	U	1.07	0.0813	1
01650	Calcium	7440-70-2	5,130		21.4	3.57	1
06951	Chromium	7440-47-3	28.3		3.21	0.171	1
06952	Cobalt	7440-48-4	4.57		1.07	0.106	1
06953	Copper	7440-50-8	12.8		2.14	0.310	1
01654	Iron	7439-89-6	21,000		42.8	3.87	1
06955	Lead	7439-92-1	8.49		3.21	0.535	1
01656	Lithium	7439-93-2	21.9		4.3	0.36	1
01657	Magnesium	7439-95-4	4,500		10.7	1.79	1
06958	Manganese	7439-96-5	250		1.07	0.0888	1
06960	Molybdenum	7439-98-7	2.14	U	2.14	0.182	1
06961	Nickel	7440-02-0	14.0		2.14	0.139	1
10145	Phosphorus	7723-14-0	257		10.7	3.09	1
01662	Potassium	7440-09-7	2,400		107	8.92	1
01667	Sodium	7440-23-5	84.9	J	107	17.9	1
06969	Tin	7440-31-5	3.12	J	10.7	0.235	1
06970	Titanium	7440-32-6	1,010		1.07	0.182	1
06971	Vanadium	7440-62-2	35.3		1.07	0.139	1
06972	Zinc	7440-66-6	54.5		4.28	0.214	1
10146	Zirconium	7440-67-7	3.13	J	5.35	0.898	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.193	J	0.428	0.107	2
06142	Silver	7440-22-4	0.187	J	0.214	0.0278	2
06144	Strontium	7440-24-6	31.7		0.428	0.0727	2
06145	Thallium	7440-28-0	0.286		0.214	0.0321	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0169	J	0.0177	0.0106	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.52		0.0100	0.0100	1
	The pH was measured in water at 21.9 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	6.5		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-748-SA5C-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7461255
LL Group # 1473878
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/12/2014 10:00 by WT

Submitted: 05/13/2014 09:25
Reported: 05/23/2014 10:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

748-4 SDG#: PH175-02*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.03	U	1.03	0.0816	1
11031	12378-PeCDD	40321-76-4	5.15	U	5.15	0.0575	1
11031	123478-HxCDD	39227-28-6	5.15	U	5.15	0.0358	1
11031	123678-HxCDD	57653-85-7	0.0501	J	5.15	0.0374	1
11031	123789-HxCDD	19408-74-3	5.15	U	5.15	0.0342	1
11031	1234678-HpCDD	35822-46-9	0.715	JB	5.15	0.0633	1
11031	OCDD	3268-87-9	6.71	JB	10.3	0.0468	1
11031	2378-TCDF	51207-31-9	1.03	U	1.03	0.0507	1
11031	12378-PeCDF	57117-41-6	5.15	U	5.15	0.0307	1
11031	23478-PeCDF	57117-31-4	5.15	U	5.15	0.0305	1
11031	123478-HxCDF	70648-26-9	5.15	U	5.15	0.0349	1
11031	123678-HxCDF	57117-44-9	5.15	U	5.15	0.0343	1
11031	123789-HxCDF	72918-21-9	5.15	U	5.15	0.0373	1
11031	234678-HxCDF	60851-34-5	5.15	U	5.15	0.0348	1
11031	1234678-HpCDF	67562-39-4	0.0357	JBQ	5.15	0.0190	1
11031	1234789-HpCDF	55673-89-7	0.0302	JBQ	5.15	0.0290	1
11031	OCDF	39001-02-0	0.193	JBQ	10.3	0.0842	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0142				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	63	25 - 164
13C12-12378-PeCDD	65	25 - 181
13C12-123478-HxCDD	70	32 - 141
13C12-123678-HxCDD	68	28 - 130
13C12-123789-HxCDD	71	28 - 130
13C12-1234678-HpCDD	68	23 - 140
13C12-OCDD	58	17 - 157
13C12-2378-TCDF	55	24 - 169
13C12-12378-PeCDF	60	24 - 185
13C12-23478-PeCDF	55	21 - 178
13C12-123478-HxCDF	59	26 - 152
13C12-123678-HxCDF	61	26 - 123
13C12-234678-HxCDF	60	28 - 136
13C12-123789-HxCDF	61	29 - 147
13C12-1234678-HpCDF	70	28 - 143
13C12-1234789-HpCDF	52	26 - 138
13C12-OCDF	41	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-748-SA5C-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7461255
LL Group # 1473878
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/12/2014 10:00 by WT

Submitted: 05/13/2014 09:25
Reported: 05/23/2014 10:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

748-4 SDG#: PH175-02*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-748-SA5C-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7461255
LL Group # 1473878
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/12/2014 10:00 by WT

Submitted: 05/13/2014 09:25
Reported: 05/23/2014 10:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

748-4 SDG#: PH175-02*

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14140SLA026	05/22/2014 05:15	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14140SLA026	05/20/2014 17:35	JoElla L Rice	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141360001A	05/16/2014 16:37	Richard A Shober	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141360028A	05/20/2014 23:58	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141360028A	05/19/2014 05:50	Roman Kuropatkin	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141360001A	05/16/2014 08:10	Maria Davenport	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14136002	05/21/2014 16:55	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14136002	05/17/2014 10:25	Brett M Weidman	1
01643	Aluminum	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
06944	Antimony	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
06935	Arsenic	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
06946	Barium	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
06947	Beryllium	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
07914	Boron	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
06949	Cadmium	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
01650	Calcium	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
06951	Chromium	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
06952	Cobalt	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
06953	Copper	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
01654	Iron	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
06955	Lead	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
01656	Lithium	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
01657	Magnesium	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
06958	Manganese	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
06960	Molybdenum	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
06961	Nickel	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
10145	Phosphorus	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
01662	Potassium	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
01667	Sodium	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
06969	Tin	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
06970	Titanium	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
06971	Vanadium	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
06972	Zinc	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
10146	Zirconium	SW-846 6010C	1	141340637004	05/15/2014 21:24	Maria A Orrs	1
06141	Selenium	SW-846 6020A	1	141340637004B	05/16/2014 05:28	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141340637004A	05/16/2014 05:28	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141340637004A	05/16/2014 05:28	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141340637004A	05/16/2014 05:28	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-748-SA5C-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7461255
LL Group # 1473878
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/12/2014 10:00 by WT

Submitted: 05/13/2014 09:25
Reported: 05/23/2014 10:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

748-4 SDG#: PH175-02*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	141350638001	05/19/2014 09:19	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141340637004	05/15/2014 07:05	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141350638001	05/16/2014 11:14	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14133039402A	05/13/2014 22:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14136162401A	05/16/2014 18:04	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473878
Reported: 05/23/14 at 10:50 AM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14140SLA026	Sample number(s): 7461254-7461255									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	100		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	97		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	103		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	105		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	99		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	110		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	88		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	101		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	98		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	109		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	106		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	96		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	102		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	91		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	93		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	117		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	97		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	95		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	105		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	93		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	94		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	95		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	98		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	118		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	97		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	95		80-119		
Batch number: 141360001A	Sample number(s): 7461254-7461255									
6a Perchlorate (Method 6850)	5.0	U	5.0	2.1	ug/kg	105		85-115		
Batch number: 141360028A	Sample number(s): 7461254-7461255									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	80	85	36-106	5	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	95		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	100		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473878
Reported: 05/23/14 at 10:50 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 141340637004	Sample number(s): 7461254-7461255									
Aluminum	40.0	U	40.0	7.21	mg/kg	102		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	106		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	108		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	102		80-120		
Boron	1.15	J	10.0	0.840	mg/kg	101		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	104		80-120		
Calcium	13.6	J	20.0	3.34	mg/kg	103		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	102		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	105		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	106		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	104		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	108		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	104		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	100		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	102		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	107		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	104		80-120		
Potassium	100 U		100.	8.34	mg/kg	101		80-120		
Sodium	100 U		100.	16.7	mg/kg	102		80-120		
Tin	1.35	J	10.0	0.220	mg/kg	101		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	103		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	103		80-120		
Zinc	0.568	J	4.00	0.200	mg/kg	103		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	103		80-120		
Batch number: 141340637004A	Sample number(s): 7461254-7461255									
Silver	0.200	U	0.200	0.0260	mg/kg	109		80-120		
Strontium	0.0750	J	0.400	0.0680	mg/kg	100		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	112		80-120		
Batch number: 141340637004B	Sample number(s): 7461254-7461255									
Selenium	0.400	U	0.400	0.100	mg/kg	109		80-120		
Batch number: 141350638001	Sample number(s): 7461254-7461255									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	91		85-120		
Batch number: 14133039402A	Sample number(s): 7461254-7461255									
15a pH by 9045D						101		95-105		
Batch number: 14136162401A	Sample number(s): 7461254-7461255									
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14136002	Sample number(s): 7461254-7461255									
2378-TCDD	1.00	U	1.00	0.0511	ng/kg	96		67-158		
12378-PeCDD	0.0427	J	5.00	0.0348	ng/kg	98		70-142		
123478-HxCDD	0.0321	J	5.00	0.0189	ng/kg	100		70-164		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473878
Reported: 05/23/14 at 10:50 AM

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
123678-HxCDD	5.00	U	5.00	0.0205	ng/kg	97		76-134		
123789-HxCDD	0.0241	J	5.00	0.0191	ng/kg	99		64-162		
1234678-HpCDD	0.0887	J	5.00	0.0223	ng/kg	94		70-140		
OCDD	0.355	J	10.0	0.0233	ng/kg	91		78-144		
2378-TCDF	1.00	U	1.00	0.0390	ng/kg	102		75-158		
12378-PeCDF	0.0581	J	5.00	0.0159	ng/kg	98		80-134		
23478-PeCDF	0.0414	J	5.00	0.0167	ng/kg	98		68-160		
123478-HxCDF	0.0576	J	5.00	0.0141	ng/kg	96		72-134		
123678-HxCDF	0.0280	J	5.00	0.0124	ng/kg	93		84-130		
123789-HxCDF	0.0367	J	5.00	0.0172	ng/kg	94		78-130		
234678-HxCDF	0.0471	J	5.00	0.0134	ng/kg	95		70-156		
1234678-HpCDF	0.0135	J	5.00	0.00737	ng/kg	91		82-122		
1234789-HpCDF	0.0284	J	5.00	0.0139	ng/kg	93		78-138		
OCDF	0.165	J	10.0	0.0362	ng/kg	92		63-170		
TEQ WHO 2005 - EDLx0.0	0.0134				ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14140SLA026	Sample number(s): 7461254-7461255 UNSPK: 7461254								
Acenaphthene	98	92	48-127	7	30				
Acenaphthylene	103	95	60-128	8	30				
Anthracene	97	93	52-126	4	30				
Benzo(a)anthracene	98	100	44-143	2	30				
Benzo(a)pyrene	84	82	49-137	2	30				
Benzo(b)fluoranthene	96	96	26-142	0	30				
Benzo(e)pyrene	78	73	63-111	6	30				
Benzo(g,h,i)perylene	48	42	33-141	12	30				
Benzo(k)fluoranthene	91	85	49-144	6	30				
Butylbenzylphthalate	112	108	64-156	4	30				
Di-n-butylphthalate	114	107	52-147	7	30				
Chrysene	91	89	43-141	2	30				
Dibenz(a,h)anthracene	66	58	25-145	13	30				
Diethylphthalate	102	92	66-140	10	30				
Dimethylphthalate	100	91	70-123	10	30				
Bis(2-Ethylhexyl)phthalate	99	94	48-164	4	30				
Fluoranthene	93	93	38-153	0	30				
Fluorene	94	89	57-130	6	30				
Indeno(1,2,3-cd)pyrene	69	52	26-139	26	30				
1-Methylnaphthalene	94	85	59-139	9	30				
2-Methylnaphthalene	96	89	46-147	7	30				
Naphthalene	94	88	52-136	6	30				
N-Nitrosodimethylamine	85	82	39-134	4	30				
Di-n-octylphthalate	134	128	52-162	5	30				
Phenanthrene	102	95	50-137	6	30				

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(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473878
Reported: 05/23/14 at 10:50 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Pyrene	86	91	26-143	4	30				
Batch number: 141360001A	Sample number(s): 7461254-7461255 UNSPK: P457971								
6a Perchlorate (Method 6850)	108	111	80-120	3	20				
Batch number: 141360028A	Sample number(s): 7461254-7461255 UNSPK: 7461254								
PCB-1016	91	92	41-135	3	50				
PCB-1260	107	110	40-134	3	50				
Batch number: 141340637004	Sample number(s): 7461254-7461255 UNSPK: P457971 BKG: P457971								
Aluminum	3014 (2)	2861 (2)	75-125	2	20	13,000	12,600	4	20
Antimony	47*	45*	75-125	4	20	3.85 U	3.88 U	0 (1)	20
Arsenic	104	106	75-125	2	20	5.42	5.66	4 (1)	20
Barium	105	106	75-125	1	20	70.9	64.6	9	20
Beryllium	103	104	75-125	0	20	0.543 J	0.519 J	4 (1)	20
Boron	99	101	75-125	2	20	1.68 J	1.41 J	17 (1)	20
Cadmium	95	98	75-125	3	20	0.962 U	0.971 U	0 (1)	20
Calcium	369 (2)	365 (2)	75-125	0	20	3,160	2,780	13	20
Chromium	127*	128*	75-125	1	20	15.8	15.8	0	20
Cobalt	98	94	75-125	4	20	4.73	4.51	5 (1)	20
Copper	120	136*	75-125	9	20	11.2	10.9	3	20
Iron	3011 (2)	3164 (2)	75-125	1	20	18,700	17,800	5	20
Lead	106	115	75-125	5	20	8.38	7.78	7 (1)	20
Lithium	104	104	75-125	0	20	21.6	21.2	2	20
Magnesium	468 (2)	442 (2)	75-125	1	20	3,870	3,750	3	20
Manganese	198 (2)	96 (2)	75-125	14	20	288	226	24*	20
Molybdenum	91	91	75-125	0	20	0.420 J	0.214 J	65* (1)	20
Nickel	97	102	75-125	4	20	12.7	12.0	6	20
Phosphorus	125	154*	75-125	7	20	260	258	1	20
Potassium	155*	150*	75-125	1	20	2,210	2,130	4	20
Sodium	98	99	75-125	0	20	84.1 J	80.3 J	5 (1)	20
Tin	85	85	75-125	0	20	2.84 J	2.62 J	8 (1)	20
Titanium	363 (2)	380 (2)	75-125	1	20	923	886	4	20
Vanadium	116	118	75-125	1	20	34.5	33.0	4	20
Zinc	161*	237*	75-125	22*	20	72.0	70.1	3	20
Zirconium	98	97	75-125	1	20	2.95 J	3.20 J	8 (1)	20
Batch number: 141340637004A	Sample number(s): 7461254-7461255 UNSPK: P457971 BKG: P457971								
Silver	105	101	75-125	3	20	0.0285 J	0.0266 J	7 (1)	20
Strontium	221*	184*	75-125	7	20	27.2	23.5	15	20
Thallium	116	102	75-125	8	20	0.262	0.225	15 (1)	20
Batch number: 141340637004B	Sample number(s): 7461254-7461255 UNSPK: P457971 BKG: P457971								
Selenium	101	111	75-125	9	20	0.144 J	0.159 J	10 (1)	20
Batch number: 141350638001	Sample number(s): 7461254-7461255 UNSPK: P457971 BKG: P457971								
3a Mercury 7471A	104	101	65-135	1	20	0.0132 J	0.0148 J	12 (1)	20
Batch number: 14133039402A	Sample number(s): 7461254-7461255 BKG: 7461254								
15a pH by 9045D						7.74	7.72	0	3

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473878
Reported: 05/23/14 at 10:50 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14136162401A	Sample number(s): 7461254-7461255					BKG: P457971			
14a Moisture Content by 160.3						5.0	5.0	0	20
Batch number: 14136002	Sample number(s): 7461254-7461255 UNSPK: P459290								
2378-TCDD	94	95	40-135	3	20				
12378-PeCDD	98	99	40-135	3	20				
123478-HxCDD	100	100	40-135	2	20				
123678-HxCDD	98	98	40-135	3	20				
123789-HxCDD	97	97	40-135	2	20				
1234678-HpCDD	100	97	40-135	0	20				
OCDD	132	119	40-135	5	20				
2378-TCDF	102	103	40-135	3	20				
12378-PeCDF	97	98	40-135	3	20				
23478-PeCDF	99	100	40-135	3	20				
123478-HxCDF	95	96	40-135	4	20				
123678-HxCDF	97	96	40-135	2	20				
123789-HxCDF	94	95	40-135	4	20				
234678-HxCDF	96	96	40-135	2	20				
1234678-HpCDF	93	94	40-135	4	20				
1234789-HpCDF	93	92	40-135	2	20				
OCDF	92	92	40-135	2	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14140SLA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7461254	85	96	82
7461255	88	102	81
Blank	91	104	83
LCS	93	109	85
MS	87	98	84
MSD	85	90	79
Limits:	59-115	61-118	70-127

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141360028A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7461254	99	101
7461255	101	102
Blank	102	107

*- Outside of specification
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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1473878
Reported: 05/23/14 at 10:50 AM

Surrogate Quality Control

LCS	107	106
LCSD	103	108
MS	98	104
MSD	99	107
Limits:	45-120	45-120

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 14136002

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7461254	72	70	74	75	74	72
7461255	63	65	70	68	71	68
Blank	72	82	77	79	78	76
MS	77	81	76	77	78	76
MSD	69	73	72	73	73	73
OPR	77	85	87	86	86	90
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7461254	64	64	64	62	65	66
7461255	58	55	60	55	59	61
Blank	70	73	89	84	77	87
MS	74	80	92	85	77	85
MSD	74	72	84	78	72	80
OPR	89	79	92	90	86	97
Limits:	17-157	24-169	24-185	21-178	26-152	26-123

	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF
7461254	66	71	68	67	52
7461255	60	61	70	52	41
Blank	80	72	106	63	52
MS	79	78	100	66	54
MSD	75	74	90	66	58
OPR	90	87	115	80	74
Limits:	28-136	29-147	28-143	26-138	17-157

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accr#13013 Cp#1473878 Sample# 7461254-55

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/12/2014
CarrierName: FedEx
AirbillNo: 798830977226

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140512-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
FDG-SL-748-SA5C-SB-0.0-0.5	5/12/14 08:32	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X		X																						
FDG-SL-748-SA5C-SB-0.0-0.5	5/12/14 08:32	SO	None	1 - 4 oz glass	10 day													X																					
FDG-SL-748-SA5C-SB-4.0-5.0	5/12/14 10:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X		X																						
FDG-SL-748-SA5C-SB-4.0-5.0	5/12/14 10:00	SO	None	1 - 4 oz glass	10 day													X																					

Special Instructions:

Sampler: Whitney Treadway

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Stephanie Lee	05/12/2014	1600									
										5/13/14	0925

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Sample Administration Receipt Documentation Log

Doc Log ID: 14326

Group Number(s): 1473878

Client: CDM Smith

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/13/2014 9:25
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	3
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	N/A		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Joseph Gruber (5200) at 09:53 on 05/13/2014

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	3258-IR	2.9	IR	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Analysis Report

REVISED

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

July 03, 2014

Project: SSFL Phase 3 Sampling

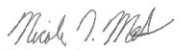
Submittal Date: 05/14/2014
Group Number: 1474152
SDG: PH176
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB1-051314 Water	7462588
FDG-SL-756-SA5C-SB-15.0-16.0 Soil	7462589
FDG-SL-836-SA5B-SB-15.0-16.0 Soil	7462590
FDG-SL-836-SA5B-SB-19.0-20.0 Soil	7462591
FB-051314 Water	7462597

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,



Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

REVISED

Sample Description: TB1-051314 Water
SSFL Phase 3

LL Sample # WW 7462588
LL Group # 1474152
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 08:00 by WT

Submitted: 05/14/2014 09:50
Reported: 07/03/2014 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB1-- SDG#: PH176-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14142A94A	05/27/2014 12:02	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14142A94A	05/27/2014 12:02	Marie D Beamenderfer	1

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: FDG-SL-756-SA5C-SB-15.0-16.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7462589
LL Group # 1474152
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 09:20 by WT

Submitted: 05/14/2014 09:50
Reported: 07/03/2014 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

756-- SDG#: PH176-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.72	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.72	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.72	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.72	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.72	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.72	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.4	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.4	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.72	1
12969	Diethylphthalate	84-66-2	19	U	19	6.4	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.4	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	14	J	19	6.4	1
12969	Fluoranthene	206-44-0	0.88	J	1.8	0.72	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.72	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.72	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.72	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.72	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.72	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.72	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.4	1
12969	Phenanthrene	85-01-8	1.1	J	1.8	0.72	1
12969	Pyrene	129-00-0	0.94	J	1.8	0.72	1
Perchlorate	**SW-846 6850 1/2007**		**ug/kg**		**ug/kg**	**ug/kg**	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.4	U	5.4	2.3	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.5	1
13099	PCB-1232	11141-16-5	18	U	18	4.4	1
13099	PCB-1242	53469-21-9	18	U	18	4.4	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.7	1
13099	PCB-1260	11096-82-5	18	U	18	4.2	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	17,500		43.0	7.74	1
06944	Antimony	7440-36-0	4.30	U	4.30	0.795	1
06935	Arsenic	7440-38-2	4.48		4.30	0.752	1
06946	Barium	7440-39-3	67.7		1.07	0.0354	1
06947	Beryllium	7440-41-7	0.762	J	1.07	0.0720	1

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: FDG-SL-756-SA5C-SB-15.0-16.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7462589
LL Group # 1474152
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 09:20 by WT

Submitted: 05/14/2014 09:50
Reported: 07/03/2014 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

756-- SDG#: PH176-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
07914	Boron	7440-42-8	10.7	U	10.7	0.902	1
06949	Cadmium	7440-43-9	1.07	U	1.07	0.0816	1
01650	Calcium	7440-70-2	1,850		21.5	3.59	1
06951	Chromium	7440-47-3	16.1		3.22	0.172	1
06952	Cobalt	7440-48-4	4.63		1.07	0.106	1
06953	Copper	7440-50-8	8.45		2.15	0.311	1
01654	Iron	7439-89-6	18,400		43.0	3.89	1
06955	Lead	7439-92-1	7.08		3.22	0.537	1
01656	Lithium	7439-93-2	19.9		4.3	0.37	1
01657	Magnesium	7439-95-4	3,240		10.7	1.79	1
06958	Manganese	7439-96-5	215		1.07	0.0892	1
06960	Molybdenum	7439-98-7	0.455	J	2.15	0.183	1
06961	Nickel	7440-02-0	7.66		2.15	0.140	1
10145	Phosphorus	7723-14-0	179		10.7	3.10	1
01662	Potassium	7440-09-7	1,710		107	8.96	1
01667	Sodium	7440-23-5	119		107	17.9	1
06969	Tin	7440-31-5	3.15	J	10.7	0.236	1
06970	Titanium	7440-32-6	888		1.07	0.183	1
06971	Vanadium	7440-62-2	33.9		1.07	0.140	1
06972	Zinc	7440-66-6	40.3		4.30	0.215	1
10146	Zirconium	7440-67-7	3.05	J	5.37	0.902	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.221	J	0.430	0.107	2
06142	Silver	7440-22-4	0.0374	J	0.215	0.0279	2
06144	Strontium	7440-24-6	17.1		0.430	0.0730	2
06145	Thallium	7440-28-0	0.282		0.215	0.0322	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0136	J	0.0176	0.0105	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.62		0.0100	0.0100	1
	The pH was measured in water at 21.7 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	6.9		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: FDG-SL-756-SA5C-SB-15.0-16.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7462589
LL Group # 1474152
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 09:20 by WT

Submitted: 05/14/2014 09:50
Reported: 07/03/2014 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

756-- SDG#: PH176-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14140SLA026	05/22/2014 05:47	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14140SLA026	05/20/2014 17:35	JoElla L Rice	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141360001A	05/16/2014 17:02	Richard A Shober	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141360028A	05/21/2014 00:17	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141360028A	05/19/2014 05:50	Roman Kuropatkin	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141360001A	05/16/2014 08:10	Maria Davenport	1
01643	Aluminum	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
06944	Antimony	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
06935	Arsenic	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
06946	Barium	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
06947	Beryllium	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
07914	Boron	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
06949	Cadmium	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
01650	Calcium	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
06951	Chromium	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
06952	Cobalt	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
06953	Copper	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
01654	Iron	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
06955	Lead	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
01656	Lithium	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
01657	Magnesium	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
06958	Manganese	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
06960	Molybdenum	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
06961	Nickel	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
10145	Phosphorus	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
01662	Potassium	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
01667	Sodium	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
06969	Tin	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
06970	Titanium	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
06971	Vanadium	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
06972	Zinc	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
10146	Zirconium	SW-846 6010C	1	141340637004	05/15/2014 21:28	Maria A Orrs	1
06141	Selenium	SW-846 6020A	1	141340637004B	05/16/2014 05:31	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141340637004A	05/16/2014 05:31	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141340637004A	05/16/2014 05:31	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141340637004A	05/16/2014 05:31	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141350638001	05/19/2014 09:21	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141340637004	05/15/2014 07:05	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141350638001	05/16/2014 11:14	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14134039402A	05/14/2014 20:35	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14136162401B	05/16/2014 18:04	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: FDG-SL-836-SA5B-SB-15.0-16.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7462590
LL Group # 1474152
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 11:00 by WT

Submitted: 05/14/2014 09:50
Reported: 07/03/2014 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83615 SDG#: PH176-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	2.0	U	2.0	0.78	1
12969	Acenaphthylene	208-96-8	2.0	U	2.0	0.39	1
12969	Anthracene	120-12-7	2.0	U	2.0	0.39	1
12969	Benzo(a)anthracene	56-55-3	2.0	U	2.0	0.78	1
12969	Benzo(a)pyrene	50-32-8	2.0	U	2.0	0.78	1
12969	Benzo(b)fluoranthene	205-99-2	2.0	U	2.0	0.78	1
12969	Benzo(e)pyrene	192-97-2	20	U	20	3.9	1
12969	Benzo(g,h,i)perylene	191-24-2	2.0	U	2.0	0.78	1
12969	Benzo(k)fluoranthene	207-08-9	2.0	U	2.0	0.78	1
12969	Butylbenzylphthalate	85-68-7	21	U	21	7.1	1
12969	Di-n-butylphthalate	84-74-2	21	U	21	7.1	1
12969	Chrysene	218-01-9	2.0	U	2.0	0.39	1
12969	Dibenz(a,h)anthracene	53-70-3	2.0	U	2.0	0.78	1
12969	Diethylphthalate	84-66-2	21	U	21	7.1	1
12969	Dimethylphthalate	131-11-3	21	U	21	7.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	10	J	21	7.1	1
12969	Fluoranthene	206-44-0	2.0	U	2.0	0.78	1
12969	Fluorene	86-73-7	2.0	U	2.0	0.78	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	2.0	U	2.0	0.78	1
12969	1-Methylnaphthalene	90-12-0	1.8	J	2.0	0.78	1
12969	2-Methylnaphthalene	91-57-6	3.0		2.0	0.78	1
12969	Naphthalene	91-20-3	2.7		2.0	0.78	1
12969	N-Nitrosodimethylamine	62-75-9	2.0	U	2.0	0.78	1
12969	Di-n-octylphthalate	117-84-0	21	U	21	7.1	1
12969	Phenanthrene	85-01-8	0.94	J	2.0	0.78	1
12969	Pyrene	129-00-0	2.0	U	2.0	0.78	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	22.56
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	39	U	39	12	1
13099	Aroclor 5442	12642-23-8	39	U	39	12	1
13099	Aroclor 5460	11126-42-4	39	U	39	12	1
13099	PCB-1016	12674-11-2	20	U	20	3.9	1
13099	PCB-1221	11104-28-2	20	U	20	6.0	1
13099	PCB-1232	11141-16-5	20	U	20	4.8	1
13099	PCB-1242	53469-21-9	20	U	20	4.8	1
13099	PCB-1248	12672-29-6	20	U	20	3.9	1
13099	PCB-1254	11097-69-1	20	U	20	5.1	1
13099	PCB-1260	11096-82-5	20	U	20	4.6	1
13099	PCB-1262	37324-23-5	20	U	20	3.9	1
13099	PCB-1268	11100-14-4	20	U	20	3.9	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.9	U	5.9	2.4	1
12952	EFH (C15-C20)	n.a.	5.9	U	5.9	2.4	1

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: FDG-SL-836-SA5B-SB-15.0-16.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7462590
LL Group # 1474152
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 11:00 by WT

Submitted: 05/14/2014 09:50
Reported: 07/03/2014 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83615 SDG#: PH176-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	3.4	J	5.9	2.4	1
12952	EFH (C30-C40)	n.a.	12	U	12	4.7	1
12952	EFH (C8-C11)	n.a.	5.9	U	5.9	2.4	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.9	U	5.9	2.4	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.9	U	5.9	2.4	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.9	U	5.9	2.4	1
13197	EFH C30-C40 w/ SiGel	n.a.	12	U	12	4.7	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.9	U	5.9	2.4	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	31,500		44.8	8.08	1
06944	Antimony	7440-36-0	4.48	U	4.48	0.829	1
06935	Arsenic	7440-38-2	5.82		4.48	0.784	1
06946	Barium	7440-39-3	123		1.12	0.0370	1
06947	Beryllium	7440-41-7	1.00	J	1.12	0.0751	1
07914	Boron	7440-42-8	4.77	J	11.2	0.941	1
06949	Cadmium	7440-43-9	1.12	U	1.12	0.0852	1
01650	Calcium	7440-70-2	24,100		22.4	3.74	1
06951	Chromium	7440-47-3	39.6		3.36	0.179	1
06952	Cobalt	7440-48-4	11.3		1.12	0.111	1
06953	Copper	7440-50-8	21.3		2.24	0.325	1
01654	Iron	7439-89-6	33,100		89.6	8.11	2
06955	Lead	7439-92-1	13.8		3.36	0.560	1
01656	Lithium	7439-93-2	27.9		4.5	0.38	1
01657	Magnesium	7439-95-4	7,830		11.2	1.87	1
06958	Manganese	7439-96-5	490		1.12	0.0930	1
06960	Molybdenum	7439-98-7	2.24	U	2.24	0.190	1
06961	Nickel	7440-02-0	18.8		2.24	0.146	1
10145	Phosphorus	7723-14-0	367		11.2	3.24	1
01662	Potassium	7440-09-7	3,840		112	9.34	1
01667	Sodium	7440-23-5	230		112	18.7	1
06969	Tin	7440-31-5	3.64	J	11.2	0.246	1
06970	Titanium	7440-32-6	1,240		1.12	0.190	1
06971	Vanadium	7440-62-2	72.1		1.12	0.146	1
06972	Zinc	7440-66-6	72.7		4.48	0.224	1
10146	Zirconium	7440-67-7	6.81		5.60	0.941	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.268	J	0.448	0.112	2
06142	Silver	7440-22-4	0.0598	J	0.224	0.0291	2
06144	Strontium	7440-24-6	52.2		0.448	0.0762	2
06145	Thallium	7440-28-0	0.439		0.224	0.0336	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0128	J	0.0190	0.0114	1

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: FDG-SL-836-SA5B-SB-15.0-16.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7462590
LL Group # 1474152
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 11:00 by WT

Submitted: 05/14/2014 09:50
Reported: 07/03/2014 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83615 SDG#: PH176-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 22 C.	n.a.	7.82	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	15.0	0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14140SLA026	05/22/2014 06:18	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14140SLA026	05/20/2014 17:35	JoElla L Rice	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	2	14141A16A	05/21/2014 19:32	Marie D Beamenderfer	22.56
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201413434498	05/14/2014 16:38	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201413434498	05/14/2014 16:38	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141360028A	05/21/2014 00:35	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141360028A	05/19/2014 05:50	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141410016A	05/23/2014 17:43	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141410017A	05/23/2014 18:05	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141410017A	05/21/2014 16:30	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141410016A	05/21/2014 16:30	JoElla L Rice	1
01643	Aluminum	SW-846 6010C	1	141340637004	05/15/2014 21:32	Maria A Orrs	1
06944	Antimony	SW-846 6010C	1	141340637004	05/15/2014 21:32	Maria A Orrs	1
06935	Arsenic	SW-846 6010C	1	141340637004	05/15/2014 21:32	Maria A Orrs	1
06946	Barium	SW-846 6010C	1	141340637004	05/15/2014 21:32	Maria A Orrs	1
06947	Beryllium	SW-846 6010C	1	141340637004	05/15/2014 21:32	Maria A Orrs	1
07914	Boron	SW-846 6010C	1	141340637004	05/15/2014 21:32	Maria A Orrs	1
06949	Cadmium	SW-846 6010C	1	141340637004	05/15/2014 21:32	Maria A Orrs	1
01650	Calcium	SW-846 6010C	1	141340637004	05/15/2014 21:32	Maria A Orrs	1
06951	Chromium	SW-846 6010C	1	141340637004	05/15/2014 21:32	Maria A Orrs	1
06952	Cobalt	SW-846 6010C	1	141340637004	05/15/2014 21:32	Maria A Orrs	1
06953	Copper	SW-846 6010C	1	141340637004	05/15/2014 21:32	Maria A Orrs	1

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: FDG-SL-836-SA5B-SB-15.0-16.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7462590
LL Group # 1474152
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 11:00 by WT

Submitted: 05/14/2014 09:50
Reported: 07/03/2014 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83615 SDG#: PH176-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01654	Iron	SW-846 6010C	1	141340637004	05/16/2014 15:55	Maria A Orrs	2
06955	Lead	SW-846 6010C	1	141340637004	05/15/2014 21:32	Maria A Orrs	1
01656	Lithium	SW-846 6010C	1	141340637004	05/15/2014 21:32	Maria A Orrs	1
01657	Magnesium	SW-846 6010C	1	141340637004	05/15/2014 21:32	Maria A Orrs	1
06958	Manganese	SW-846 6010C	1	141340637004	05/15/2014 21:32	Maria A Orrs	1
06960	Molybdenum	SW-846 6010C	1	141340637004	05/15/2014 21:32	Maria A Orrs	1
06961	Nickel	SW-846 6010C	1	141340637004	05/15/2014 21:32	Maria A Orrs	1
10145	Phosphorus	SW-846 6010C	1	141340637004	05/15/2014 21:32	Maria A Orrs	1
01662	Potassium	SW-846 6010C	1	141340637004	05/15/2014 21:32	Maria A Orrs	1
01667	Sodium	SW-846 6010C	1	141340637004	05/15/2014 21:32	Maria A Orrs	1
06969	Tin	SW-846 6010C	1	141340637004	05/15/2014 21:32	Maria A Orrs	1
06970	Titanium	SW-846 6010C	1	141340637004	05/15/2014 21:32	Maria A Orrs	1
06971	Vanadium	SW-846 6010C	1	141340637004	05/15/2014 21:32	Maria A Orrs	1
06972	Zinc	SW-846 6010C	1	141340637004	05/15/2014 21:32	Maria A Orrs	1
10146	Zirconium	SW-846 6010C	1	141340637004	05/15/2014 21:32	Maria A Orrs	1
06141	Selenium	SW-846 6020A	1	141340637004B	05/16/2014 05:33	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141340637004A	05/16/2014 05:33	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141340637004A	05/16/2014 05:33	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141340637004A	05/16/2014 05:33	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141350638001	05/19/2014 09:23	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141340637004	05/15/2014 07:05	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141350638001	05/16/2014 11:14	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14134039402A	05/14/2014 20:35	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14136162401B	05/16/2014 18:04	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: FDG-SL-836-SA5B-SB-19.0-20.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7462591
LL Group # 1474152
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 11:20 by WT

Submitted: 05/14/2014 09:50
Reported: 07/03/2014 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83619 SDG#: PH176-04*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	2.0		1.8	0.70	1
12969	Acenaphthylene	208-96-8	0.35	J	1.8	0.35	1
12969	Anthracene	120-12-7	2.1		1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	5.0		1.8	0.70	1
12969	Benzo(a)pyrene	50-32-8	5.7		1.8	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	4.9		1.8	0.70	1
12969	Benzo(e)pyrene	192-97-2	5.6	J	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	J	1.8	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	5.3		1.8	0.70	1
12969	Butylbenzylphthalate	85-68-7	6.4	J	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	11		1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	0.99	J	1.8	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	12	J	19	6.3	1
12969	Fluoranthene	206-44-0	6.1		1.8	0.70	1
12969	Fluorene	86-73-7	3.9		1.8	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.95	J	1.8	0.70	1
12969	1-Methylnaphthalene	90-12-0	4.7		1.8	0.70	1
12969	2-Methylnaphthalene	91-57-6	5.9		1.8	0.70	1
12969	Naphthalene	91-20-3	1.8		1.8	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	16		1.8	0.70	1
12969	Pyrene	129-00-0	9.8		1.8	0.70	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	2.2		1.0	0.2	24.65
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	26	U	26	11	5
12952	EFH (C15-C20)	n.a.	26	U	26	11	5

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: FDG-SL-836-SA5B-SB-19.0-20.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7462591
LL Group # 1474152
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 11:20 by WT

Submitted: 05/14/2014 09:50
Reported: 07/03/2014 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83619 SDG#: PH176-04*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	130		26	11	5
12952	EFH (C30-C40)	n.a.	310		53	21	5
12952	EFH (C8-C11)	n.a.	26	U	26	11	5
13197	EFH C12-C14 w/ SiGel	n.a.	11	U	11	4.2	2
13197	EFH C15-C20 w/ SiGel	n.a.	15		11	4.2	2
13197	EFH C21-C30 w/ SiGel	n.a.	94		11	4.2	2
13197	EFH C30-C40 w/ SiGel	n.a.	210		21	8.4	2
13197	EFH C8-C11 w/ SiGel	n.a.	11	U	11	4.2	2
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,000		40.2	7.25	1
06944	Antimony	7440-36-0	4.02	U	4.02	0.744	1
06935	Arsenic	7440-38-2	2.31	J	4.02	0.704	1
06946	Barium	7440-39-3	84.8		1.01	0.0332	1
06947	Beryllium	7440-41-7	0.482	J	1.01	0.0674	1
07914	Boron	7440-42-8	1.35	J	10.1	0.845	1
06949	Cadmium	7440-43-9	1.01	U	1.01	0.0764	1
01650	Calcium	7440-70-2	3,990		20.1	3.36	1
06951	Chromium	7440-47-3	18.6		3.02	0.161	1
06952	Cobalt	7440-48-4	5.04		1.01	0.0996	1
06953	Copper	7440-50-8	10.9		2.01	0.292	1
01654	Iron	7439-89-6	19,400		40.2	3.64	1
06955	Lead	7439-92-1	7.17		3.02	0.503	1
01656	Lithium	7439-93-2	23.0		4.0	0.34	1
01657	Magnesium	7439-95-4	4,770		10.1	1.68	1
06958	Manganese	7439-96-5	265		1.01	0.0835	1
06960	Molybdenum	7439-98-7	0.775	J	2.01	0.171	1
06961	Nickel	7440-02-0	8.66		2.01	0.131	1
10145	Phosphorus	7723-14-0	375		10.1	2.91	1
01662	Potassium	7440-09-7	2,820		101	8.39	1
01667	Sodium	7440-23-5	150		101	16.8	1
06969	Tin	7440-31-5	2.99	J	10.1	0.221	1
06970	Titanium	7440-32-6	1,050		1.01	0.171	1
06971	Vanadium	7440-62-2	33.5		1.01	0.131	1
06972	Zinc	7440-66-6	52.8		4.02	0.201	1
10146	Zirconium	7440-67-7	2.46	J	5.03	0.845	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.157	J	0.402	0.101	2
06142	Silver	7440-22-4	0.201	U	0.201	0.0261	2
06144	Strontium	7440-24-6	21.0		0.402	0.0684	2
06145	Thallium	7440-28-0	0.269		0.201	0.0302	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0122	J	0.0170	0.0102	1

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: FDG-SL-836-SA5B-SB-19.0-20.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7462591
LL Group # 1474152
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 11:20 by WT

Submitted: 05/14/2014 09:50
Reported: 07/03/2014 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83619 SDG#: PH176-04*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 22.1 C.	n.a.	7.98	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	5.3	0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14140SLA026	05/22/2014 13:15	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14140SLA026	05/20/2014 17:35	JoElla L Rice	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14141A16A	05/21/2014 20:09	Laura M Krieger	24.65
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201413434498	05/14/2014 16:39	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201413434498	05/14/2014 16:39	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141360028A	05/21/2014 00:54	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141360028A	05/19/2014 05:50	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141410016A	05/23/2014 22:46	Heather E Williams	5
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141410017A	05/23/2014 23:08	Heather E Williams	2
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141410017A	05/21/2014 16:30	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141410016A	05/21/2014 16:30	JoElla L Rice	1
01643	Aluminum	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1
06944	Antimony	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1
06935	Arsenic	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1
06946	Barium	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1
06947	Beryllium	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1
07914	Boron	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1
06949	Cadmium	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1
01650	Calcium	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1
06951	Chromium	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1
06952	Cobalt	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1
06953	Copper	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: FDG-SL-836-SA5B-SB-19.0-20.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7462591
LL Group # 1474152
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 11:20 by WT

Submitted: 05/14/2014 09:50
Reported: 07/03/2014 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

83619 SDG#: PH176-04*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01654	Iron	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1
06955	Lead	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1
01656	Lithium	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1
01657	Magnesium	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1
06958	Manganese	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1
06960	Molybdenum	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1
06961	Nickel	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1
10145	Phosphorus	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1
01662	Potassium	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1
01667	Sodium	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1
06969	Tin	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1
06970	Titanium	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1
06971	Vanadium	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1
06972	Zinc	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1
10146	Zirconium	SW-846 6010C	1	141340637004	05/15/2014 21:36	Maria A Orrs	1
06141	Selenium	SW-846 6020A	1	141340637004B	05/16/2014 05:35	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141340637004A	05/16/2014 05:35	Choon Y Tian	2
06144	Strontium	SW-846 6020A	2	141340637004A	05/16/2014 05:35	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141340637004A	05/16/2014 05:35	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141350638001	05/19/2014 09:25	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141340637004	05/15/2014 07:05	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141350638001	05/16/2014 11:14	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14134039402A	05/14/2014 20:35	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14136162401B	05/16/2014 18:04	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: FB-051314 Water
SSFL Phase 3

LL Sample # WW 7462597
LL Group # 1474152
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 15:00 by PH

Submitted: 05/14/2014 09:50
Reported: 07/03/2014 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FB513 SDG#: PH176-08FB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	1	U	1	0.5	1
10335	Benzene	71-43-2	1	U	1	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	1	U	1	0.5	1
10335	Bromoform	75-25-2	4	U	4	0.5	1
10335	Bromomethane	74-83-9	1	U	1	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	1	U	1	0.5	1
10335	Chlorobenzene	108-90-7	1	U	1	0.5	1
10335	Chloroethane	75-00-3	1	U	1	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	1	U	1	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	1	U	1	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	1	U	1	0.5	1
10335	1,2-Dibromoethane	106-93-4	1	U	1	0.5	1
10335	Dibromomethane	74-95-3	1	U	1	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	1	U	1	0.5	1
10335	1,1-Dichloroethane	75-34-3	1	U	1	0.5	1
10335	1,2-Dichloroethane	107-06-2	1	U	1	0.5	1
10335	1,1-Dichloroethene	75-35-4	1	U	1	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	1	U	1	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	1	U	1	0.5	1
10335	1,2-Dichloropropane	78-87-5	1	U	1	0.5	1
10335	1,3-Dichloropropane	142-28-9	1	U	1	0.5	1
10335	2,2-Dichloropropane	594-20-7	1	U	1	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	1	U	1	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	1	U	1	0.5	1
10335	Ethyl t-butyl ether	637-92-3	1	U	1	0.5	1
10335	Ethylbenzene	100-41-4	1	U	1	0.5	1
10335	Freon 113	76-13-1	10	U	10	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: FB-051314 Water
SSFL Phase 3

LL Sample # WW 7462597
LL Group # 1474152
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 15:00 by PH

Submitted: 05/14/2014 09:50
Reported: 07/03/2014 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FB513 SDG#: PH176-08FB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	1	U	1	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	1	U	1	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	1	U	1	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	3	U	3	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	1	U	1	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	1	U	1	0.5	1
10335	Tetrachloroethene	127-18-4	1	U	1	0.5	1
10335	Toluene	108-88-3	1	U	1	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	1	U	1	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	1	U	1	0.5	1
10335	Trichloroethene	79-01-6	1	U	1	0.5	1
10335	Trichlorofluoromethane	75-69-4	1	U	1	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	1	U	1	0.5	1
10335	m+p-Xylene	179601-23-1	1	U	1	0.5	1
10335	o-Xylene	95-47-6	1	U	1	0.5	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: chlorotrifluoroethene.

GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/l		ug/l	ug/l	
12971	Acenaphthene	83-32-9	0.048	U	0.048	0.0097	1
12971	Acenaphthylene	208-96-8	0.048	U	0.048	0.0097	1
12971	Anthracene	120-12-7	0.048	U	0.048	0.0097	1
12971	Benzo(a)anthracene	56-55-3	0.048	U	0.048	0.0097	1
12971	Benzo(a)pyrene	50-32-8	0.048	U	0.048	0.0097	1
12971	Benzo(b)fluoranthene	205-99-2	0.048	U	0.048	0.0097	1
12971	Benzo(e)pyrene	192-97-2	0.048	U	0.048	0.0097	1
12971	Benzo(g,h,i)perylene	191-24-2	0.048	U	0.048	0.0097	1
12971	Benzo(k)fluoranthene	207-08-9	0.048	U	0.048	0.0097	1
12971	Butylbenzylphthalate	85-68-7	0.97	U	0.97	0.048	1
12971	Di-n-butylphthalate	84-74-2	0.22	J	0.97	0.048	1
12971	Chrysene	218-01-9	0.048	U	0.048	0.0097	1
12971	Dibenz(a,h)anthracene	53-70-3	0.048	U	0.048	0.0097	1
12971	Diethylphthalate	84-66-2	0.47	J	0.97	0.048	1
12971	Dimethylphthalate	131-11-3	0.97	U	0.97	0.048	1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.25	J	0.97	0.048	1
12971	Fluoranthene	206-44-0	0.048	U	0.048	0.0097	1

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: FB-051314 Water
SSFL Phase 3

LL Sample # WW 7462597
LL Group # 1474152
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 15:00 by PH

Submitted: 05/14/2014 09:50
Reported: 07/03/2014 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FB513 SDG#: PH176-08FB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	
12971	Fluorene	86-73-7	0.048	U	0.048	0.0097	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.048	U	0.048	0.0097	1
12971	1-Methylnaphthalene	90-12-0	0.048	U	0.048	0.0097	1
12971	2-Methylnaphthalene	91-57-6	0.048	U	0.048	0.0097	1
12971	Naphthalene	91-20-3	0.048	U	0.048	0.029	1
12971	N-Nitrosodimethylamine	62-75-9	0.048	U	0.048	0.0097	1
12971	Di-n-octylphthalate	117-84-0	0.97	U	0.97	0.048	1
12971	Phenanthrene	85-01-8	0.048	U	0.048	0.029	1
12971	Pyrene	129-00-0	0.048	U	0.048	0.0097	1

The holding time was not met. The client was notified and the data reported.

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the result is within the acceptance range allowed by the method, the data is reported.

GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1
Perchlorate	**SW-846 6850 1/2007**		**ug/l**		**ug/l**	**ug/l**	
06386	6b Perchlorate (Method 6850)	14797-73-0	1.0	U	1.0	0.20	1
Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	
13092	Aroclor 5432	63496-31-1	0.42	U	0.42	0.085	1
13092	Aroclor 5442	12642-23-8	0.42	U	0.42	0.085	1
13092	Aroclor 5460	11126-42-4	0.42	U	0.42	0.093	1
13092	PCB-1016	12674-11-2	0.42	U	0.42	0.085	1
13092	PCB-1221	11104-28-2	0.42	U	0.42	0.085	1
13092	PCB-1232	11141-16-5	0.42	U	0.42	0.17	1
13092	PCB-1242	53469-21-9	0.42	U	0.42	0.085	1
13092	PCB-1248	12672-29-6	0.42	U	0.42	0.085	1
13092	PCB-1254	11097-69-1	0.42	U	0.42	0.085	1
13092	PCB-1260	11096-82-5	0.42	U	0.42	0.13	1
13092	PCB-1262	37324-23-5	0.42	U	0.42	0.17	1
13092	PCB-1268	11100-14-4	0.42	U	0.42	0.14	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**		**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.098	U	0.098	0.049	1
10365	EFH (C15-C20)	n.a.	0.098	U	0.098	0.049	1
10365	EFH (C21-C30)	n.a.	0.098	U	0.098	0.049	1
10365	EFH (C30 - C40)	n.a.	0.49	U	0.49	0.098	1
10365	EFH (C8-C11)	n.a.	0.098	U	0.098	0.049	1
13205	EFH C12-C14 w/ SiGel	n.a.	0.098	U	0.098	0.049	1
13205	EFH C15-C20 w/ SiGel	n.a.	0.098	U	0.098	0.049	1
13205	EFH C21-C30 w/ SiGel	n.a.	0.098	U	0.098	0.049	1
13205	EFH C30-C40 w/ SiGel	n.a.	0.49	U	0.49	0.098	1
13205	EFH C8-C11 w/ SiGel	n.a.	0.098	U	0.098	0.049	1

The reverse surrogate, capric acid, is present at <1%.

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: FB-051314 Water
SSFL Phase 3

LL Sample # WW 7462597
LL Group # 1474152
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 15:00 by PH

Submitted: 05/14/2014 09:50
Reported: 07/03/2014 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FB513 SDG#: PH176-08FB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
	The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The LCS/LCSD surrogate(s) recovery is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.					
Metals		**SW-846 6010C**	**mg/l**	**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400 U	0.400	0.0828	1
07044	Antimony	7440-36-0	0.0400 U	0.0400	0.0053	1
07035	Arsenic	7440-38-2	0.0400 U	0.0400	0.0068	1
07046	Barium	7440-39-3	0.0100 U	0.0100	0.00033	1
07047	Beryllium	7440-41-7	0.0100 U	0.0100	0.00067	1
08014	Boron	7440-42-8	0.100 U	0.100	0.0084	1
07049	Cadmium	7440-43-9	0.0100 U	0.0100	0.00076	1
01750	Calcium	7440-70-2	0.400 U	0.400	0.0334	1
07051	Chromium	7440-47-3	0.0300 U	0.0300	0.0016	1
07052	Cobalt	7440-48-4	0.0100 U	0.0100	0.0013	1
07053	Copper	7440-50-8	0.0200 U	0.0200	0.0027	1
01754	Iron	7439-89-6	0.400 U	0.400	0.0430	1
07055	Lead	7439-92-1	0.0300 U	0.0300	0.0047	1
01756	Lithium	7439-93-2	0.0400 U	0.0400	0.0047	1
01757	Magnesium	7439-95-4	0.200 U	0.200	0.0167	1
07058	Manganese	7439-96-5	0.0012 J	0.0100	0.00083	1
07060	Molybdenum	7439-98-7	0.0200 U	0.0200	0.0017	1
07061	Nickel	7440-02-0	0.0200 U	0.0200	0.0015	1
10143	Phosphorus	7723-14-0	0.200 U	0.200	0.0418	1
01762	Potassium	7440-09-7	1.00 U	1.00	0.0980	1
01767	Sodium	7440-23-5	2.00 U	2.00	0.167	1
07069	Tin	7440-31-5	0.0400 U	0.0400	0.0029	1
07070	Titanium	7440-32-6	0.0200 U	0.0200	0.0017	1
07071	Vanadium	7440-62-2	0.0100 U	0.0100	0.0020	1
07072	Zinc	7440-66-6	0.0030 J	0.0400	0.0020	1
10144	Zirconium	7440-67-7	0.100 U	0.100	0.0084	1
		SW-846 6020A	**mg/l**	**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040 U	0.0040	0.00050	1
06042	Silver	7440-22-4	0.0010 U	0.0010	0.00011	1
06044	Strontium	7440-24-6	0.0020 U	0.0020	0.00034	1
06045	Thallium	7440-28-0	0.0010 U	0.0010	0.00015	1
		SW-846 7470A	**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A	7439-97-6	0.00020 U	0.00020	0.000060	1
Wet Chemistry		**SW-846 9040C**	**Std. Units**	**Std. Units**	**Std. Units**	
12152	28b pH (9040B and 9040C)	n.a.	6.5	0.010	0.010	1

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: FB-051314 Water
SSFL Phase 3

LL Sample # WW 7462597
LL Group # 1474152
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 15:00 by PH

Submitted: 05/14/2014 09:50
Reported: 07/03/2014 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FB513 SDG#: PH176-08FB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	
10915	2378-TCDD	1746-01-6	1.98	U	1.98	0.212	1
10915	12378-PeCDD	40321-76-4	9.90	U	9.90	0.158	1
10915	123478-HxCDD	39227-28-6	9.90	U	9.90	0.135	1
10915	123678-HxCDD	57653-85-7	9.90	U	9.90	0.147	1
10915	123789-HxCDD	19408-74-3	9.90	U	9.90	0.137	1
10915	1234678-HpCDD	35822-46-9	0.611	JBQ	9.90	0.134	1
10915	OCDD	3268-87-9	4.37	JBQ	19.8	0.191	1
10915	2378-TCDF	51207-31-9	1.98	U	1.98	0.130	1
10915	12378-PeCDF	57117-41-6	0.272	JBQ	9.90	0.0933	1
10915	23478-PeCDF	57117-31-4	9.90	U	9.90	0.0860	1
10915	123478-HxCDF	70648-26-9	0.195	JBQ	9.90	0.0797	1
10915	123678-HxCDF	57117-44-9	0.163	JBQ	9.90	0.0746	1
10915	123789-HxCDF	72918-21-9	9.90	U	9.90	0.0792	1
10915	234678-HxCDF	60851-34-5	0.0816	JBQ	9.90	0.0717	1
10915	1234678-HpCDF	67562-39-4	0.265	JBQ	9.90	0.0474	1
10915	1234789-HpCDF	55673-89-7	0.160	JBQ	9.90	0.0519	1
10915	OCDF	39001-02-0	0.794	JBQ	19.8	0.154	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	U				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	79	25 - 164
13C12-12378-PeCDD	83	25 - 181
13C12-123478-HxCDD	89	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	95	23 - 140
13C12-OCDD	95	17 - 157
13C12-2378-TCDF	83	24 - 169
13C12-12378-PeCDF	88	24 - 185
13C12-23478-PeCDF	88	21 - 178
13C12-123478-HxCDF	91	26 - 152
13C12-123678-HxCDF	92	26 - 123
13C12-234678-HxCDF	91	28 - 136
13C12-123789-HxCDF	91	29 - 147
13C12-1234678-HpCDF	94	28 - 143
13C12-1234789-HpCDF	95	26 - 138
13C12-OCDF	93	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: FB-051314 Water
SSFL Phase 3

LL Sample # WW 7462597
LL Group # 1474152
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 15:00 by PH

Submitted: 05/14/2014 09:50
Reported: 07/03/2014 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FB513 SDG#: PH176-08FB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: FB-051314 Water
SSFL Phase 3

LL Sample # WW 7462597
LL Group # 1474152
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 15:00 by PH

Submitted: 05/14/2014 09:50
Reported: 07/03/2014 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FB513 SDG#: PH176-08FB

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141392AA	05/19/2014 23:41	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141392AA	05/19/2014 23:41	Kevin A Sposito	1
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14142WAE026	05/26/2014 12:44	Mark A Clark	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	14142WAE026	05/22/2014 19:30	Nicholas W Shroyer	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14142A94A	05/27/2014 12:27	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14142A94A	05/27/2014 12:27	Marie D Beamenderfer	1
06386	6b Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141390018A	05/19/2014 16:57	Richard A Shober	1
13092	21b PCBs and PCTs 8082A	SW-846 8082A	1	141400007A	05/22/2014 11:36	Jessica L Miller	1
13093	PCB/PCT Waters Update IV	SW-846 3510C	1	141400007A	05/20/2014 18:00	David V Hershey Jr	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141390014A	05/20/2014 03:43	Heather E Williams	1
13205	10b TPH-DRO (w/Si Gel)	SW-846 8015B modified	1	141390015A	05/20/2014 18:09	Heather E Williams	1
13212	EFH Water Ext. w/SiGel	SW-846 3510C	1	141390015A	05/19/2014 16:35	JoElla L Rice	1
11203	EFH Waters Extraction	SW-846 3510C	1	141390014A	05/19/2014 16:35	JoElla L Rice	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14136003	05/20/2014 21:57	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B October 1994	1	14136003	05/17/2014 11:00	Chin F Ly	1
01743	Aluminum	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1
07044	Antimony	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1
07035	Arsenic	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1
07046	Barium	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1
07047	Beryllium	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1
08014	Boron	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1
07049	Cadmium	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1
01750	Calcium	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1
07051	Chromium	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1
07052	Cobalt	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1
07053	Copper	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1
01754	Iron	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1
07055	Lead	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1
01756	Lithium	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1
01757	Magnesium	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1
07058	Manganese	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1
07060	Molybdenum	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1
07061	Nickel	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1
10143	Phosphorus	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1
01762	Potassium	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: FB-051314 Water
SSFL Phase 3

LL Sample # WW 7462597
LL Group # 1474152
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 15:00 by PH

Submitted: 05/14/2014 09:50
Reported: 07/03/2014 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FB513 SDG#: PH176-08FB

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01767	Sodium	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1
07069	Tin	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1
07070	Titanium	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1
07071	Vanadium	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1
07072	Zinc	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1
10144	Zirconium	SW-846 6010C	1	141350635001	05/16/2014 17:42	Maria A Orrs	1
06041	Selenium	SW-846 6020A	2	141350639001B	05/16/2014 19:36	John P Hook	1
06042	Silver	SW-846 6020A	1	141350639001A	05/16/2014 19:36	John P Hook	1
06044	Strontium	SW-846 6020A	1	141350639001A	05/16/2014 19:36	John P Hook	1
06045	Thallium	SW-846 6020A	1	141350639001A	05/16/2014 19:36	John P Hook	1
00259	3b Mercury 7470A	SW-846 7470A	1	141355713005	05/19/2014 08:18	Damary Valentin	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	141350635001	05/16/2014 10:00	Micaela L Dishong	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	141350639001	05/16/2014 09:15	Micaela L Dishong	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	141355713005	05/16/2014 11:49	Micaela L Dishong	1
12152	28b pH (9040B and 9040C)	SW-846 9040C	1	14135002101A	05/15/2014 14:44	Michele L Graham	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474152
Reported: 07/03/14 at 04:43 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: Y141392AA	Sample number(s): 7462597								
Acetone	20 U	20.	6	ug/l	84	84	43-149	1	30
Acrolein	100 U	100.	40	ug/l	87	87	52-129	1	30
Acrylonitrile	20 U	20.	4	ug/l	85	88	62-120	4	30
t-Amyl methyl ether	5 U	5.	0.5	ug/l	103	104	75-120	1	30
Benzene	5 U	5.	0.5	ug/l	102	101	78-120	1	30
Bromobenzene	5 U	5.	1	ug/l	98	97	80-120	2	30
Bromochloromethane	5 U	5.	1	ug/l	89	89	80-121	0	30
Bromodichloromethane	5 U	5.	0.5	ug/l	92	92	73-120	0	30
Bromoform	5 U	5.	0.5	ug/l	83	82	61-120	1	30
Bromomethane	5 U	5.	0.5	ug/l	93	94	58-120	1	30
2-Butanone	10 U	10.	3	ug/l	91	92	54-133	1	30
t-Butyl alcohol	50 U	50.	5	ug/l	99	100	75-120	1	30
n-Butylbenzene	5 U	5.	1	ug/l	95	95	68-120	1	30
sec-Butylbenzene	5 U	5.	1	ug/l	98	97	80-120	0	30
tert-Butylbenzene	5 U	5.	1	ug/l	97	95	73-120	1	30
Carbon Disulfide	5 U	5.	1	ug/l	89	91	58-126	2	30
Carbon Tetrachloride	5 U	5.	0.5	ug/l	101	101	74-130	0	30
Chlorobenzene	5 U	5.	0.5	ug/l	100	100	80-120	0	30
Chloroethane	5 U	5.	0.5	ug/l	83	83	56-120	0	30
2-Chloroethyl Vinyl Ether	10 U	10.	2	ug/l	98	99	54-126	1	30
Chloroform	5 U	5.	0.5	ug/l	100	100	80-122	0	30
1-Chlorohexane	5 U	5.	1	ug/l	105	104	80-120	0	30
Chloromethane	5 U	5.	0.5	ug/l	97	97	63-120	0	30
2-Chlorotoluene	5 U	5.	1	ug/l	98	98	80-120	1	30
4-Chlorotoluene	5 U	5.	1	ug/l	99	97	80-120	2	30
Chlorotrifluoroethene	5 U	5.	2	ug/l	42*	42*	47-120	0	30
1,2-Dibromo-3-chloropropane	5 U	5.	2	ug/l	93	94	56-120	2	30
Dibromochloromethane	5 U	5.	0.5	ug/l	93	94	72-120	1	30
1,2-Dibromoethane	5 U	5.	0.5	ug/l	101	100	76-120	1	30
Dibromomethane	5 U	5.	0.5	ug/l	96	97	80-120	1	30
1,2-Dichlorobenzene	5 U	5.	1	ug/l	99	98	80-120	1	30
1,3-Dichlorobenzene	5 U	5.	1	ug/l	99	98	80-120	2	30
1,4-Dichlorobenzene	5 U	5.	1	ug/l	100	97	80-120	2	30
Dichlorodifluoromethane	5 U	5.	0.5	ug/l	106	105	48-132	0	30
1,1-Dichloroethane	5 U	5.	0.5	ug/l	99	99	80-120	1	30
1,2-Dichloroethane	5 U	5.	0.5	ug/l	99	99	65-135	0	30
1,1-Dichloroethene	5 U	5.	0.5	ug/l	102	104	76-124	1	30
cis-1,2-Dichloroethene	5 U	5.	0.5	ug/l	101	101	80-120	0	30
trans-1,2-Dichloroethene	5 U	5.	0.5	ug/l	104	104	80-120	0	30
1,2-Dichloropropane	5 U	5.	0.5	ug/l	101	100	80-120	1	30
1,3-Dichloropropane	5 U	5.	0.5	ug/l	98	98	80-120	0	30
2,2-Dichloropropane	5 U	5.	0.5	ug/l	100	100	67-124	0	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474152
Reported: 07/03/14 at 04:43 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/l	108	108	80-120	0	30
cis-1,3-Dichloropropene	5	U	5.	0.5	ug/l	96	95	80-120	0	30
trans-1,3-Dichloropropene	5	U	5.	0.5	ug/l	95	95	76-120	0	30
Ethyl t-butyl ether	5	U	5.	0.5	ug/l	102	103	74-120	1	30
Ethylbenzene	5	U	5.	0.5	ug/l	99	98	79-120	1	30
Freon 113	5	U	5.	2	ug/l	109	110	67-127	0	30
Freon 133a	5	U	5.	2	ug/l	85	87	46-152	2	30
Hexachlorobutadiene	5	U	5.	2	ug/l	86	84	51-125	2	30
2-Hexanone	10	U	10.	3	ug/l	92	92	44-126	0	30
di-Isopropyl ether	5	U	5.	0.5	ug/l	106	106	65-120	1	30
Isopropylbenzene	5	U	5.	1	ug/l	98	98	77-120	1	30
p-Isopropyltoluene	5	U	5.	1	ug/l	95	94	80-120	1	30
Methyl Iodide	5	U	5.	0.5	ug/l	106	106	75-128	0	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/l	102	102	75-120	0	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	91	92	51-124	0	30
Methylene Chloride	5	U	5.	2	ug/l	100	101	80-120	1	30
n-Propylbenzene	5	U	5.	1	ug/l	99	99	80-120	0	30
Styrene	5	U	5.	1	ug/l	99	99	80-120	0	30
1,1,1,2-Tetrachloroethane	5	U	5.	0.5	ug/l	99	98	80-120	1	30
1,1,2,2-Tetrachloroethane	5	U	5.	0.5	ug/l	99	98	70-120	1	30
Tetrachloroethene	5	U	5.	0.5	ug/l	99	99	80-120	0	30
Toluene	5	U	5.	0.5	ug/l	101	101	80-120	0	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	96	95	58-126	1	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	96	95	65-120	0	30
1,1,1-Trichloroethane	5	U	5.	0.5	ug/l	92	93	66-126	1	30
1,1,2-Trichloroethane	5	U	5.	0.5	ug/l	97	98	80-120	1	30
Trichloroethene	5	U	5.	0.5	ug/l	103	103	80-120	0	30
Trichlorofluoromethane	5	U	5.	0.5	ug/l	108	107	65-130	2	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	97	96	76-120	1	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	100	98	74-120	2	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	99	98	74-120	1	30
Vinyl Acetate	10	U	10.	2	ug/l	79	80	56-135	1	30
Vinyl Chloride	5	U	5.	0.5	ug/l	102	103	63-120	1	30
m+p-Xylene	5	U	5.	0.5	ug/l	98	98	80-120	0	30
o-Xylene	5	U	5.	0.5	ug/l	99	99	80-120	0	30
Batch number: 14140SLA026	Sample number(s): 7462589-7462591									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	100		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	97		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	103		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	105		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	99		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	110		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	88		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	101		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	98		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	109		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	106		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	96		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	102		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	91		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	93		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	117		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	97		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	95		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	105		82-123		

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474152
Reported: 07/03/14 at 04:43 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	93		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	94		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	95		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	98		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	118		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	97		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	95		80-119		
Batch number: 14142WAE026	Sample number(s): 7462597									
Acenaphthene	0.050	U	0.050	0.010	ug/l	115	113	83-119	1	30
Acenaphthylene	0.050	U	0.050	0.010	ug/l	100	105	81-130	4	30
Anthracene	0.050	U	0.050	0.010	ug/l	104	108	83-125	3	30
Benzo(a)anthracene	0.050	U	0.050	0.010	ug/l	110	115	79-122	4	30
Benzo(a)pyrene	0.050	U	0.050	0.010	ug/l	97	97	80-121	0	30
Benzo(b)fluoranthene	0.050	U	0.050	0.010	ug/l	111	107	79-136	4	30
Benzo(e)pyrene	0.050	U	0.050	0.010	ug/l	88	89	67-118	1	30
Benzo(g,h,i)perylene	0.050	U	0.050	0.010	ug/l	98	98	72-132	0	30
Benzo(k)fluoranthene	0.050	U	0.050	0.010	ug/l	96	97	81-131	2	30
Butylbenzylphthalate	1.0	U	1.0	0.050	ug/l	107	116	40-138	8	30
Di-n-butylphthalate	1.0	U	1.0	0.050	ug/l	111	118	64-141	6	30
Chrysene	0.050	U	0.050	0.010	ug/l	97	101	84-118	4	30
Dibenz(a,h)anthracene	0.050	U	0.050	0.010	ug/l	101	102	66-133	1	30
Diethylphthalate	1.0	U	1.0	0.050	ug/l	91	91	64-137	0	30
Dimethylphthalate	1.0	U	1.0	0.050	ug/l	92	95	23-139	3	30
Bis(2-Ethylhexyl)phthalate	0.24	J	1.0	0.050	ug/l	120	131	70-143	9	30
Fluoranthene	0.050	U	0.050	0.010	ug/l	104	106	84-124	2	30
Fluorene	0.050	U	0.050	0.010	ug/l	99	102	82-119	3	30
Indeno(1,2,3-cd)pyrene	0.050	U	0.050	0.010	ug/l	100	100	68-132	0	30
1-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	94	96	86-130	2	30
2-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	99	101	81-131	2	30
Naphthalene	0.050	U	0.050	0.030	ug/l	95	98	82-122	3	30
N-Nitrosodimethylamine	0.050	U	0.050	0.010	ug/l	65	61	56-96	6	30
Di-n-octylphthalate	1.0	U	1.0	0.050	ug/l	118	121	57-145	2	30
Phenanthrene	0.050	U	0.050	0.030	ug/l	99	102	83-116	3	30
Pyrene	0.050	U	0.050	0.010	ug/l	96	100	78-125	4	30
Batch number: 14141A16A	Sample number(s): 7462590-7462591									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	80		67-120		
Batch number: 14142A94A	Sample number(s): 7462588,7462597									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	109	111	80-133	2	30
Batch number: 141360001A	Sample number(s): 7462589									
6a Perchlorate (Method 6850)	5.0	U	5.0	2.1	ug/kg	105		85-115		
Batch number: 141390018A	Sample number(s): 7462597									
6b Perchlorate (Method 6850)	1.0	U	1.0	0.20	ug/l	97		85-115		
Batch number: 141360028A	Sample number(s): 7462589-7462591									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	80	85	36-106	5	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	95		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474152
Reported: 07/03/14 at 04:43 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	100		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141400007A	Sample number(s): 7462597									
Aroclor 5432	0.40	U	0.40	0.080	ug/l					
Aroclor 5442	0.40	U	0.40	0.080	ug/l	72	72	34-115	0	30
Aroclor 5460	0.40	U	0.40	0.088	ug/l					
PCB-1016	0.40	U	0.40	0.080	ug/l	87	84	60-117	3	30
PCB-1221	0.40	U	0.40	0.080	ug/l					
PCB-1232	0.40	U	0.40	0.16	ug/l					
PCB-1242	0.40	U	0.40	0.080	ug/l					
PCB-1248	0.40	U	0.40	0.080	ug/l					
PCB-1254	0.40	U	0.40	0.080	ug/l					
PCB-1260	0.40	U	0.40	0.12	ug/l	92	90	67-128	2	30
PCB-1262	0.40	U	0.40	0.16	ug/l					
PCB-1268	0.40	U	0.40	0.13	ug/l					
Batch number: 141390014A	Sample number(s): 7462597									
EFH (C12-C14)	0.10	U	0.10	0.050	mg/l	78	75	67-109	4	30
EFH (C15-C20)	0.10	U	0.10	0.050	mg/l	84	83	71-119	1	30
EFH (C21-C30)	0.10	U	0.10	0.050	mg/l	84	83	75-117	1	30
EFH (C30 - C40)	0.50	U	0.50	0.10	mg/l	58	63	44-134	8	30
EFH (C8-C11)	0.10	U	0.10	0.050	mg/l	60	56	55-86	7	30
Batch number: 141390015A	Sample number(s): 7462597									
EFH C12-C14 w/ SiGel	0.10	U	0.10	0.050	mg/l	69	65*	67-109	7	30
EFH C15-C20 w/ SiGel	0.10	U	0.10	0.050	mg/l	75	72	71-119	4	30
EFH C21-C30 w/ SiGel	0.10	U	0.10	0.050	mg/l	74*	72*	75-117	3	30
EFH C30-C40 w/ SiGel	0.50	U	0.50	0.10	mg/l	57	58	44-134	1	30
EFH C8-C11 w/ SiGel	0.10	U	0.10	0.050	mg/l	49*	44*	55-86	12	30
Batch number: 141410016A	Sample number(s): 7462590-7462591									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	117*		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	120		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	119		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	66		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	91		60-115		
Batch number: 141410017A	Sample number(s): 7462590-7462591									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	71*		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	74*		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	73*		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	53		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	57*		60-115		
Batch number: 141340637004	Sample number(s): 7462589-7462591									
Aluminum	40.0	U	40.0	7.21	mg/kg	102		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	106		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	108		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	102		80-120		
Boron	1.15	J	10.0	0.840	mg/kg	101		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	104		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474152
Reported: 07/03/14 at 04:43 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Calcium	13.6	J	20.0	3.34	mg/kg	103		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	102		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	105		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	106		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	104		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	108		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	104		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	100		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	102		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	107		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	104		80-120		
Potassium	100 U		100.	8.34	mg/kg	101		80-120		
Sodium	100 U		100.	16.7	mg/kg	102		80-120		
Tin	1.35	J	10.0	0.220	mg/kg	101		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	103		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	103		80-120		
Zinc	0.568	J	4.00	0.200	mg/kg	103		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	103		80-120		
Batch number: 141340637004A	Sample number(s): 7462589-7462591									
Silver	0.200	U	0.200	0.0260	mg/kg	109		80-120		
Strontium	0.0750	J	0.400	0.0680	mg/kg	100		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	112		80-120		
Batch number: 141340637004B	Sample number(s): 7462589-7462591									
Selenium	0.400	U	0.400	0.100	mg/kg	109		80-120		
Batch number: 141350635001	Sample number(s): 7462597									
Aluminum	0.400	U	0.400	0.0828	mg/l	105	103	90-112	2	20
Antimony	0.0400	U	0.0400	0.0053	mg/l	106	103	88-111	3	20
Arsenic	0.0400	U	0.0400	0.0068	mg/l	106	102	90-113	4	20
Barium	0.0100	U	0.0100	0.00033	mg/l	105	105	90-110	0	20
Beryllium	0.0100	U	0.0100	0.00067	mg/l	103	103	90-111	0	20
Boron	0.100	U	0.100	0.0084	mg/l	99	99	90-110	0	20
Cadmium	0.0100	U	0.0100	0.00076	mg/l	105	102	90-112	3	20
Calcium	0.400	U	0.400	0.0334	mg/l	103	101	90-112	1	20
Chromium	0.0300	U	0.0300	0.0016	mg/l	102	101	90-110	0	20
Cobalt	0.0100	U	0.0100	0.0013	mg/l	108	105	90-110	3	20
Copper	0.0200	U	0.0200	0.0027	mg/l	107	107	90-112	0	20
Iron	0.400	U	0.400	0.0430	mg/l	105	103	90-112	2	20
Lead	0.0300	U	0.0300	0.0047	mg/l	109	106	88-116	3	20
Lithium	0.0400	U	0.0400	0.0047	mg/l	103	103	90-110	1	20
Magnesium	0.200	U	0.200	0.0167	mg/l	101	100	89-110	1	20
Manganese	0.0016	J	0.0100	0.00083	mg/l	106	106	90-110	0	20
Molybdenum	0.0200	U	0.0200	0.0017	mg/l	106	103	90-110	3	20
Nickel	0.0200	U	0.0200	0.0015	mg/l	111	108	90-111	3	20
Phosphorus	0.200	U	0.200	0.0418	mg/l	103	101	90-110	2	20
Potassium	1.00	U	1.00	0.0980	mg/l	101	100	90-110	0	20
Sodium	2.00	U	2.00	0.167	mg/l	103	102	87-114	1	20
Tin	0.0400	U	0.0400	0.0029	mg/l	103	100	90-110	3	20
Titanium	0.0200	U	0.0200	0.0017	mg/l	104	104	90-113	0	20
Vanadium	0.0100	U	0.0100	0.0020	mg/l	105	104	90-110	1	20
Zinc	0.0038	J	0.0400	0.0020	mg/l	105	102	90-110	3	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474152
Reported: 07/03/14 at 04:43 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Zirconium	0.100 U	0.100	0.0084	mg/l	102	102	90-110	1	20
Batch number: 141350638001	Sample number(s): 7462589-7462591								
3a Mercury 7471A	0.0167 U	0.0167	0.0100	mg/kg	91		85-120		
Batch number: 141350639001A	Sample number(s): 7462597								
Silver	0.0010 U	0.0010	0.00011	mg/l	102	101	90-115	1	20
Strontium	0.0020 U	0.0020	0.00034	mg/l	101	99	90-110	2	20
Thallium	0.0010 U	0.0010	0.00015	mg/l	107	102	90-115	4	20
Batch number: 141350639001B	Sample number(s): 7462597								
Selenium	0.0040 U	0.0040	0.00050	mg/l	109	133*	90-114	20	20
Batch number: 141355713005	Sample number(s): 7462597								
3b Mercury 7470A	0.00020 U	0.00020	0.00006 0	mg/l	98	101	90-115	3	20
Batch number: 14134039402A	Sample number(s): 7462589-7462591								
15a pH by 9045D					100		95-105		
Batch number: 14135002101A	Sample number(s): 7462597								
28b pH (9040B and 9040C)					100		90-110		
Batch number: 14136162401B	Sample number(s): 7462589-7462591								
14a Moisture Content by 160.3					100		80-120		

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14136003	Sample number(s): 7462597								
2378-TCDD	0.258 J	2.00	0.252	pg/l	89		60-150		
12378-PeCDD	0.307 J	10.0	0.220	pg/l	89		60-150		
123478-HxCDD	0.303 J	10.0	0.162	pg/l	89		60-150		
123678-HxCDD	0.312 J	10.0	0.172	pg/l	89		60-150		
123789-HxCDD	0.356 J	10.0	0.171	pg/l	91		60-150		
1234678-HpCDD	1.08 J	10.0	0.186	pg/l	90		60-150		
OCDD	5.19 J	20.0	0.271	pg/l	85		60-150		
2378-TCDF	2.00 U	2.00	0.174	pg/l	85		60-150		
12378-PeCDF	0.466 J	10.0	0.120	pg/l	88		60-150		
23478-PeCDF	0.402 J	10.0	0.110	pg/l	90		60-150		
123478-HxCDF	0.418 J	10.0	0.110	pg/l	91		60-150		
123678-HxCDF	0.243 J	10.0	0.108	pg/l	91		60-150		
123789-HxCDF	0.445 J	10.0	0.108	pg/l	89		60-150		
234678-HxCDF	0.153 J	10.0	0.101	pg/l	90		60-150		
1234678-HpCDF	0.515 J	10.0	0.0885	pg/l	90		60-150		
1234789-HpCDF	0.574 J	10.0	0.0907	pg/l	89		60-150		
OCDF	1.10 J	20.0	0.202	pg/l	86		60-150		
TEQ WHO 2005 - EDLx0.0	0.0940			pg/l					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474152
Reported: 07/03/14 at 04:43 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14140SLA026	Sample number(s): 7462589-7462591 UNSPK: P461254								
Acenaphthene	98	92	48-127	7	30				
Acenaphthylene	103	95	60-128	8	30				
Anthracene	97	93	52-126	4	30				
Benzo(a)anthracene	98	100	44-143	2	30				
Benzo(a)pyrene	84	82	49-137	2	30				
Benzo(b)fluoranthene	96	96	26-142	0	30				
Benzo(e)pyrene	78	73	63-111	6	30				
Benzo(g,h,i)perylene	48	42	33-141	12	30				
Benzo(k)fluoranthene	91	85	49-144	6	30				
Butylbenzylphthalate	112	108	64-156	4	30				
Di-n-butylphthalate	114	107	52-147	7	30				
Chrysene	91	89	43-141	2	30				
Dibenz(a,h)anthracene	66	58	25-145	13	30				
Diethylphthalate	102	92	66-140	10	30				
Dimethylphthalate	100	91	70-123	10	30				
Bis(2-Ethylhexyl)phthalate	99	94	48-164	4	30				
Fluoranthene	93	93	38-153	0	30				
Fluorene	94	89	57-130	6	30				
Indeno(1,2,3-cd)pyrene	69	52	26-139	26	30				
1-Methylnaphthalene	94	85	59-139	9	30				
2-Methylnaphthalene	96	89	46-147	7	30				
Naphthalene	94	88	52-136	6	30				
N-Nitrosodimethylamine	85	82	39-134	4	30				
Di-n-octylphthalate	134	128	52-162	5	30				
Phenanthrene	102	95	50-137	6	30				
Pyrene	86	91	26-143	4	30				
Batch number: 14141A16A	Sample number(s): 7462590-7462591 UNSPK: P470316								
11a TPH by EPA 8015B GRO	80	87	69-123	15	30				
Batch number: 141360001A	Sample number(s): 7462589 UNSPK: P457971								
6a Perchlorate (Method 6850)	108	111	80-120	3	20				
Batch number: 141390018A	Sample number(s): 7462597 UNSPK: 7462597								
6b Perchlorate (Method 6850)	98	100	80-120	2	20				
Batch number: 141360028A	Sample number(s): 7462589-7462591 UNSPK: P461254								
PCB-1016	91	92	41-135	3	50				
PCB-1260	107	110	40-134	3	50				
Batch number: 141410016A	Sample number(s): 7462590-7462591 UNSPK: P470316								
EFH (C12-C14)	108	96	49-123	12	20				
EFH (C15-C20)	112	99	49-123	12	20				
EFH (C21-C30)	115	98	49-123	16	20				
EFH (C30-C40)	114	75	49-123	42*	20				
EFH (C8-C11)	90	88	49-123	2	20				
Batch number: 141410017A	Sample number(s): 7462590-7462591 UNSPK: P470316								
EFH C12-C14 w/ SiGel	72	70	49-123	3	20				
EFH C15-C20 w/ SiGel	74	71	49-123	4	20				

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Quality Control Summary

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Reported: 07/03/14 at 04:43 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
EFH C21-C30 w/ SiGel	73	71	49-123	3	20				
EFH C30-C40 w/ SiGel	62	58	49-123	7	20				
EFH C8-C11 w/ SiGel	60	64	49-123	5	20				
Batch number: 141340637004	Sample number(s): 7462589-7462591 UNSPK: P457971 BKG: P457971								
Aluminum	3014 (2)	2861 (2)	75-125	2	20	13,000	12,600	4	20
Antimony	47*	45*	75-125	4	20	3.85 U	3.88 U	0 (1)	20
Arsenic	104	106	75-125	2	20	5.42	5.66	4 (1)	20
Barium	105	106	75-125	1	20	70.9	64.6	9	20
Beryllium	103	104	75-125	0	20	0.543 J	0.519 J	4 (1)	20
Boron	99	101	75-125	2	20	1.68 J	1.41 J	17 (1)	20
Cadmium	95	98	75-125	3	20	0.962 U	0.971 U	0 (1)	20
Calcium	369 (2)	365 (2)	75-125	0	20	3,160	2,780	13	20
Chromium	127*	128*	75-125	1	20	15.8	15.8	0	20
Cobalt	98	94	75-125	4	20	4.73	4.51	5 (1)	20
Copper	120	136*	75-125	9	20	11.2	10.9	3	20
Iron	3011 (2)	3164 (2)	75-125	1	20	18,700	17,800	5	20
Lead	106	115	75-125	5	20	8.38	7.78	7 (1)	20
Lithium	104	104	75-125	0	20	21.6	21.2	2	20
Magnesium	468 (2)	442 (2)	75-125	1	20	3,870	3,750	3	20
Manganese	198 (2)	96 (2)	75-125	14	20	288	226	24*	20
Molybdenum	91	91	75-125	0	20	0.420 J	0.214 J	65* (1)	20
Nickel	97	102	75-125	4	20	12.7	12.0	6	20
Phosphorus	125	154*	75-125	7	20	260	258	1	20
Potassium	155*	150*	75-125	1	20	2,210	2,130	4	20
Sodium	98	99	75-125	0	20	84.1 J	80.3 J	5 (1)	20
Tin	85	85	75-125	0	20	2.84 J	2.62 J	8 (1)	20
Titanium	363 (2)	380 (2)	75-125	1	20	923	886	4	20
Vanadium	116	118	75-125	1	20	34.5	33.0	4	20
Zinc	161*	237*	75-125	22*	20	72.0	70.1	3	20
Zirconium	98	97	75-125	1	20	2.95 J	3.20 J	8 (1)	20
Batch number: 141340637004A	Sample number(s): 7462589-7462591 UNSPK: P457971 BKG: P457971								
Silver	105	101	75-125	3	20	0.0285 J	0.0266 J	7 (1)	20
Strontium	221*	184*	75-125	7	20	27.2	23.5	15	20
Thallium	116	102	75-125	8	20	0.262	0.225	15 (1)	20
Batch number: 141340637004B	Sample number(s): 7462589-7462591 UNSPK: P457971 BKG: P457971								
Selenium	101	111	75-125	9	20	0.144 J	0.159 J	10 (1)	20
Batch number: 141350638001	Sample number(s): 7462589-7462591 UNSPK: P457971 BKG: P457971								
3a Mercury 7471A	104	101	65-135	1	20	0.0132 J	0.0148 J	12 (1)	20
Batch number: 14134039402A	Sample number(s): 7462589-7462591 BKG: 7462591								
15a pH by 9045D						7.98	8.02	0	3
Batch number: 14135002101A	Sample number(s): 7462597 BKG: P462231								
28b pH (9040B and 9040C)						6.7	6.9	2	3
Batch number: 14136162401B	Sample number(s): 7462589-7462591 BKG: P462593								

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474152
Reported: 07/03/14 at 04:43 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
14a Moisture Content by 160.3						8.1	8.0	1	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141392AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7462597	99	101	99	96
Blank	99	100	99	95
LCS	99	102	100	100
LCSD	98	102	101	100
Limits:	86-118	80-120	88-110	86-115

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14140SLA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7462589	83	95	79
7462590	85	101	82
7462591	100	113	89
Blank	91	104	83
LCS	93	109	85
MS	87	98	84
MSD	85	90	79
Limits:	59-115	61-118	70-127

Analysis Name: 7b SVOC SIM EPA 8270D
Batch number: 14142WAE026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7462597	101	115	88
Blank	99	114	83
LCS	102	118	92
LCSD	105	118	93
Limits:	59-128	62-141	70-134

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 14141A16A

	Trifluorotoluene-F

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474152
Reported: 07/03/14 at 04:43 PM

Surrogate Quality Control

7462590	80	
7462591	86	
Blank	99	
LCS	100	
MS	87	
MSD	95	
Limits:	50-142	

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14142A94A

	Trifluorotoluene-F	
7462588	86	
7462597	86	
Blank	86	
LCS	97	
LCSD	94	
Limits:	63-135	

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141360028A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7462589	99	102
7462590	102	102
7462591	99	98
Blank	102	107
LCS	107	106
LCSD	103	108
MS	98	104
MSD	99	107
Limits:	45-120	45-120

Analysis Name: 21b PCBs and PCTs 8082A
Batch number: 141400007A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7462597	87	77
Blank	98	98
LCS	100	79
LCSD	96	77
Limits:	45-120	45-120

Analysis Name: 10b TPH by EPA 8015B (DRO)
Batch number: 141390014A

	Chlorobenzene	Orthoterphenyl
7462597	68	83
Blank	66	80
LCS	86	80
LCSD	65	78

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474152
Reported: 07/03/14 at 04:43 PM

Surrogate Quality Control

Limits: 45-126 69-119

Analysis Name: 10b TPH-DRO (w/Si Gel)
Batch number: 141390015A

	Chlorobenzene	Orthoterphenyl
7462597	66	71
Blank	64	71
LCS	67	72
LCSD	62	68*

Limits: 45-126 69-119

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141410016A

	Chlorobenzene	Orthoterphenyl
7462590	96	95
7462591	83	96
Blank	94	106
LCS	96	116
MS	94	106
MSD	86	94

Limits: 37-125 66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141410017A

	Chlorobenzene	Orthoterphenyl
7462590	69	65*
7462591	65	72
Blank	76	83
LCS	62	72
MS	65	72
MSD	66	72

Limits: 37-125 66-123

Analysis Name: 17b Dioxin/Furan by EPA 1613B
Batch number: 14136003

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7462597	79	83	89	86	87	95
Blank	86	89	92	94	92	103
OPR	83	91	94	92	92	96
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7462597	95	83	88	88	91	92
Blank	91	90	96	94	97	98
OPR	100	85	95	96	93	93

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474152
Reported: 07/03/14 at 04:43 PM

Surrogate Quality Control

Limits:	17-157	24-169	24-185	21-178	26-152	26-123
	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	
7462597	91	91	94	95	93	
Blank	98	101	100	106	96	
OPR	95	107	98	100	100	
Limits:	28-136	29-147	28-143	26-138	17-157	

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

A-13013 G-1474152 S-746588-97

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/13/2014
CarrierName: FedEx
AirbillNo: 798848021746

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140513-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
TB1-051314	5/13/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																			X															
FDG-SL-756-SA5C-SB-15.0-16.0	5/13/14 09:20	SO	None	2 - 16 oz glass	10 day	X	X					X			X		X																						
FDG-SL-756-SA5C-SB-15.0-16.0	5/13/14 09:20	SO	None	1 - 4 oz glass	10 day													X																					
FDG-SL-836-SA5B-SB-15.0-16.0	5/13/14 11:00	SO	None	2 - 16 oz glass	10 day	X	X					X			X			X								X													For all EFH, silica gel
FDG-SL-836-SA5B-SB-15.0-16.0	5/13/14 11:00	SO	None	2 - Encore	10 day																			X															cleanup required on 1/2
FDG-SL-836-SA5B-SB-19.0-20.0	5/13/14 11:20	SO	None	2 - 16 oz glass	10 day	X	X					X			X			X								X													the extract. Analyze both
FDG-SL-836-SA5B-SB-19.0-20.0	5/13/14 11:20	SO	None	2 - Encore	10 day																			X															extracts for EFH.

Special Instructions:

Sampler: Whitney Treadway

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Stephanie Lupo	05/13/2014	1600									
									Blum/Am	5.14.14	950

A-13013 G-147415Z S-7462588-97

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/13/2014
CarrierName: FedEx
AirbillNo: 798848021746

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140513-03
Cooler #: 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc_Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
FB-051314	5/13/14 15:00	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	X		X																															For EFH, silica gel cleanup
FB-051314	5/13/14 15:00	WQ	None	2 - 250 mL Amber	10 day							X			X																								required on 1/2 the extract.
FB-051314	5/13/14 15:00	WQ	None	2 - 1 L Amber	10 day									X																									Analyze both extracts for EFH.
FB-051314	5/13/14 15:00	WQ	None	1 - 40 mL Vial	10 day												X																						
FB-051314	5/13/14 15:00	WQ	None	1 - 250 mL Poly	10 day														X																				
FB-051314	5/13/14 15:00	WQ	HCl	6 - 40 mL Vial	10 day																	X		X															
FB-051314	5/13/14 15:00	WQ	HCl	2 - 1 L Amber	10 day																				X														

Special Instructions:

Sampler: Pa Hart

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Peggy Myers	5/13/2014	1600							Brian Bm	5-14-14	950

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 14419

Group Number(s): 1474152

Client: CDM

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/14/2014 9:50
Number of Packages:	2	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Brandy Barclay (2299) at 11:13 on 05/14/2014

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT146	1.5	DT	Wet	Y	Bagged	N	N
2	DT146	0.8	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 09, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/15/2014
Group Number: 1474671
SDG: PH177
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
EB1-051414 Water	7465088
EB2-051414 Water	7465089
TB1-051414 Water	7465090
FDG-SL-841-SA5B-SB-0.0-0.5 Soil	7465091
FDG-SL-841-SA5B-SB-4.0-5.0 Soil	7465092
FDG-SL-841-SA5B-SB-9.0-10.0 Soil	7465093
FDG-SL-757-SA5C-SB-0.0-0.5 Soil	7465094
FDG-SL-757-SA5C-SB-4.0-5.0 Soil	7465095
FDG-SL-757-SA5C-SB-8.0-9.0 Soil	7465096
FDG-SL-842-SA5B-SB-0.0-0.5 Soil	7465097
FDG-SL-842-SA5B-SB-4.0-5.0 Soil	7465098

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: EB1-051414 Water
SSFL Phase 3 Subarea 5B/C

LL Sample # WW 7465088
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 15:00 by PH

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7701 SDG#: PH177-01EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	
12971	Acenaphthene	83-32-9	0.057	U	0.057	0.011	1
12971	Acenaphthylene	208-96-8	0.057	U	0.057	0.011	1
12971	Anthracene	120-12-7	0.057	U	0.057	0.011	1
12971	Benzo(a)anthracene	56-55-3	0.057	U	0.057	0.011	1
12971	Benzo(a)pyrene	50-32-8	0.057	U	0.057	0.011	1
12971	Benzo(b)fluoranthene	205-99-2	0.057	U	0.057	0.011	1
12971	Benzo(e)pyrene	192-97-2	0.057	U	0.057	0.011	1
12971	Benzo(g,h,i)perylene	191-24-2	0.057	U	0.057	0.011	1
12971	Benzo(k)fluoranthene	207-08-9	0.057	U	0.057	0.011	1
12971	Butylbenzylphthalate	85-68-7	1.1	U	1.1	0.057	1
12971	Di-n-butylphthalate	84-74-2	0.27	J	1.1	0.057	1
12971	Chrysene	218-01-9	0.057	U	0.057	0.011	1
12971	Dibenz(a,h)anthracene	53-70-3	0.057	U	0.057	0.011	1
12971	Diethylphthalate	84-66-2	0.082	J	1.1	0.057	1
12971	Dimethylphthalate	131-11-3	1.1	U	1.1	0.057	1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.49	J	1.1	0.057	1
12971	Fluoranthene	206-44-0	0.057	U	0.057	0.011	1
12971	Fluorene	86-73-7	0.057	U	0.057	0.011	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.057	U	0.057	0.011	1
12971	1-Methylnaphthalene	90-12-0	0.057	U	0.057	0.011	1
12971	2-Methylnaphthalene	91-57-6	0.057	U	0.057	0.011	1
12971	Naphthalene	91-20-3	0.057	U	0.057	0.034	1
12971	N-Nitrosodimethylamine	62-75-9	0.057	U	0.057	0.011	1
12971	Di-n-octylphthalate	117-84-0	1.1	U	1.1	0.057	1
12971	Phenanthrene	85-01-8	0.057	U	0.057	0.034	1
12971	Pyrene	129-00-0	0.057	U	0.057	0.011	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Sufficient sample was not available to repeat the analysis.

Perchlorate	**SW-846 6850 1/2007**		**ug/l**		**ug/l**	**ug/l**	
06386	6b Perchlorate (Method 6850)	14797-73-0	6.4		1.0	0.20	1
Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	
13092	Aroclor 5432	63496-31-1	0.41	U	0.41	0.083	1
13092	Aroclor 5442	12642-23-8	0.41	U	0.41	0.083	1
13092	Aroclor 5460	11126-42-4	0.41	U	0.41	0.091	1
13092	PCB-1016	12674-11-2	0.41	U	0.41	0.083	1
13092	PCB-1221	11104-28-2	0.41	U	0.41	0.083	1
13092	PCB-1232	11141-16-5	0.41	U	0.41	0.17	1
13092	PCB-1242	53469-21-9	0.41	U	0.41	0.083	1
13092	PCB-1248	12672-29-6	0.41	U	0.41	0.083	1
13092	PCB-1254	11097-69-1	0.41	U	0.41	0.083	1
13092	PCB-1260	11096-82-5	0.41	U	0.41	0.12	1
13092	PCB-1262	37324-23-5	0.41	U	0.41	0.17	1
13092	PCB-1268	11100-14-4	0.41	U	0.41	0.13	1

*=This limit was used in the evaluation of the final result

Sample Description: EB1-051414 Water
SSFL Phase 3 Subarea 5B/C

LL Sample # WW 7465088
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 15:00 by PH

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7701 SDG#: PH177-01EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**		**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.098	U	0.098	0.049	1
10365	EFH (C15-C20)	n.a.	0.098	U	0.098	0.049	1
10365	EFH (C21-C30)	n.a.	0.098	U	0.098	0.049	1
10365	EFH (C30 - C40)	n.a.	0.49	U	0.49	0.098	1
10365	EFH (C8-C11)	n.a.	0.098	U	0.098	0.049	1
13205	EFH C12-C14 w/ SiGel	n.a.	0.098	U	0.098	0.049	1
13205	EFH C15-C20 w/ SiGel	n.a.	0.098	U	0.098	0.049	1
13205	EFH C21-C30 w/ SiGel	n.a.	0.098	U	0.098	0.049	1
13205	EFH C30-C40 w/ SiGel	n.a.	0.49	U	0.49	0.098	1
13205	EFH C8-C11 w/ SiGel	n.a.	0.098	U	0.098	0.049	1

The reverse surrogate, capric acid, is present at <1%.
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The LCS/LCSD surrogate(s) recovery is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.

Metals	**SW-846 6010C**		**mg/l**		**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400	U	0.400	0.0828	1
07044	Antimony	7440-36-0	0.0400	U	0.0400	0.0053	1
07035	Arsenic	7440-38-2	0.0400	U	0.0400	0.0068	1
07046	Barium	7440-39-3	0.00034	J	0.0100	0.00033	1
07047	Beryllium	7440-41-7	0.0100	U	0.0100	0.00067	1
08014	Boron	7440-42-8	0.0106	J	0.100	0.0084	1
07049	Cadmium	7440-43-9	0.0100	U	0.0100	0.00076	1
01750	Calcium	7440-70-2	0.400	U	0.400	0.0334	1
07051	Chromium	7440-47-3	0.0300	U	0.0300	0.0016	1
07052	Cobalt	7440-48-4	0.0100	U	0.0100	0.0013	1
07053	Copper	7440-50-8	0.0200	U	0.0200	0.0027	1
01754	Iron	7439-89-6	0.400	U	0.400	0.0430	1
07055	Lead	7439-92-1	0.0300	U	0.0300	0.0047	1
01756	Lithium	7439-93-2	0.0400	U	0.0400	0.0047	1
01757	Magnesium	7439-95-4	0.200	U	0.200	0.0167	1
07058	Manganese	7439-96-5	0.0100	U	0.0100	0.00083	1
07060	Molybdenum	7439-98-7	0.0029	J	0.0200	0.0017	1
07061	Nickel	7440-02-0	0.0200	U	0.0200	0.0015	1
10143	Phosphorus	7723-14-0	0.200	U	0.200	0.0418	1
01762	Potassium	7440-09-7	1.00	U	1.00	0.0980	1
01767	Sodium	7440-23-5	2.00	U	2.00	0.167	1
07069	Tin	7440-31-5	0.0400	U	0.0400	0.0029	1
07070	Titanium	7440-32-6	0.0200	U	0.0200	0.0017	1
07071	Vanadium	7440-62-2	0.0100	U	0.0100	0.0020	1
07072	Zinc	7440-66-6	0.0400	U	0.0400	0.0020	1
10144	Zirconium	7440-67-7	0.100	U	0.100	0.0084	1
	SW-846 6020A		**mg/l**		**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040	U	0.0040	0.00050	1

*=This limit was used in the evaluation of the final result

Sample Description: EB1-051414 Water
SSFL Phase 3 Subarea 5B/C

LL Sample # WW 7465088
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 15:00 by PH

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7701 SDG#: PH177-01EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Metals	**SW-846 6020A**		**mg/l**	**mg/l**	**mg/l**	
06042	Silver	7440-22-4	0.0010 U	0.0010	0.00011	1
06044	Strontium	7440-24-6	0.0020 U	0.0020	0.00034	1
06045	Thallium	7440-28-0	0.0010 U	0.0010	0.00015	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A	7439-97-6	0.00020 U	0.00020	0.000060	1
Wet Chemistry	**SW-846 9040C**		**Std. Units**	**Std. Units**	**Std. Units**	
12152	28b pH (9040B and 9040C)	n.a.	5.8	0.010	0.010	1

*=This limit was used in the evaluation of the final result

Sample Description: EB1-051414 Water
SSFL Phase 3 Subarea 5B/C

LL Sample # WW 7465088
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 15:00 by PH

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7701 SDG#: PH177-01EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	
10915	2378-TCDD	1746-01-6	0.210	JB	2.06	0.200	1
10915	12378-PeCDD	40321-76-4	10.3	U	10.3	0.163	1
10915	123478-HxCDD	39227-28-6	0.237	JBQ	10.3	0.126	1
10915	123678-HxCDD	57653-85-7	10.3	U	10.3	0.133	1
10915	123789-HxCDD	19408-74-3	0.308	JBQ	10.3	0.130	1
10915	1234678-HpCDD	35822-46-9	0.259	JB	10.3	0.0986	1
10915	OCDD	3268-87-9	5.72	JBQ	20.6	0.201	1
10915	2378-TCDF	51207-31-9	0.156	JQ	2.06	0.0981	1
10915	12378-PeCDF	57117-41-6	10.3	U	10.3	0.0771	1
10915	23478-PeCDF	57117-31-4	0.156	JBQ	10.3	0.0708	1
10915	123478-HxCDF	70648-26-9	0.184	JBQ	10.3	0.0756	1
10915	123678-HxCDF	57117-44-9	0.0756	JBQ	10.3	0.0738	1
10915	123789-HxCDF	72918-21-9	0.209	JBQ	10.3	0.0819	1
10915	234678-HxCDF	60851-34-5	0.123	JBQ	10.3	0.0750	1
10915	1234678-HpCDF	67562-39-4	0.328	JBQ	10.3	0.0397	1
10915	1234789-HpCDF	55673-89-7	0.217	JB	10.3	0.0437	1
10915	OCDF	39001-02-0	0.700	JBQ	20.6	0.140	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	0.214				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	80	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	88	32 - 141
13C12-123678-HxCDD	88	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	84	17 - 157
13C12-2378-TCDF	89	24 - 169
13C12-12378-PeCDF	92	24 - 185
13C12-23478-PeCDF	93	21 - 178
13C12-123478-HxCDF	93	26 - 152
13C12-123678-HxCDF	94	26 - 123
13C12-234678-HxCDF	94	28 - 136
13C12-123789-HxCDF	97	29 - 147
13C12-1234678-HpCDF	93	28 - 143
13C12-1234789-HpCDF	95	26 - 138
13C12-OCDF	90	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: EB1-051414 Water
SSFL Phase 3 Subarea 5B/C

LL Sample # WW 7465088
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 15:00 by PH

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7701 SDG#: PH177-01EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: EB1-051414 Water
SSFL Phase 3 Subarea 5B/C

LL Sample # WW 7465088
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 15:00 by PH

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7701 SDG#: PH177-01EB

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14140WAB026	05/23/2014 18:51	Chad A Moline	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	14140WAB026	05/20/2014 19:00	Nicholas W Shroyer	1
06386	6b Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141390018A	05/19/2014 17:35	Richard A Shober	1
13092	21b PCBs and PCTs 8082A	SW-846 8082A	1	141400007A	05/22/2014 11:55	Jessica L Miller	1
13093	PCB/PCT Waters Update IV	SW-846 3510C	1	141400007A	05/20/2014 18:00	David V Hershey Jr	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141390014A	05/20/2014 04:04	Heather E Williams	1
13205	10b TPH-DRO (w/Si Gel)	SW-846 8015B modified	1	141390015A	05/20/2014 18:30	Heather E Williams	1
13212	EFH Water Ext. w/SiGel	SW-846 3510C	1	141390015A	05/19/2014 16:35	JoElla L Rice	1
11203	EFH Waters Extraction	SW-846 3510C	1	141390014A	05/19/2014 16:35	JoElla L Rice	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14136003	05/21/2014 06:41	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B October 1994	1	14136003	05/17/2014 11:00	Chin F Ly	1
01743	Aluminum	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1
07044	Antimony	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1
07046	Barium	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1
07047	Beryllium	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1
08014	Boron	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1
01750	Calcium	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1
07051	Chromium	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1
07052	Cobalt	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1
07053	Copper	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1
01754	Iron	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1
07055	Lead	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1
01756	Lithium	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1
07058	Manganese	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1
07060	Molybdenum	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1
07061	Nickel	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1
10143	Phosphorus	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1
01762	Potassium	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1
01767	Sodium	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1
07069	Tin	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1
07070	Titanium	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1
07072	Zinc	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: EB1-051414 Water
SSFL Phase 3 Subarea 5B/C

LL Sample # WW 7465088
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 15:00 by PH

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7701 SDG#: PH177-01EB

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10144	Zirconium	SW-846 6010C	1	141390635001	05/20/2014 22:21	Katlin N Cataldi	1
06041	Selenium	SW-846 6020A	1	141390639001B	05/20/2014 21:09	John P Hook	1
06042	Silver	SW-846 6020A	1	141390639001A	05/20/2014 21:09	John P Hook	1
06044	Strontium	SW-846 6020A	1	141390639001A	05/20/2014 21:09	John P Hook	1
06045	Thallium	SW-846 6020A	1	141390639001A	05/20/2014 21:09	John P Hook	1
00259	3b Mercury 7470A	SW-846 7470A	1	141415713001	05/22/2014 06:51	Damary Valentin	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	141390635001	05/20/2014 10:03	Micaela L Dishong	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	141390639001	05/20/2014 09:34	Micaela L Dishong	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	141395713003	05/20/2014 11:45	Micaela L Dishong	1
05713	WW SW846 Hg Digest	SW-846 7470A	2	141415713001	05/21/2014 23:55	Annamaria Kuhns	1
12152	28b pH (9040B and 9040C)	SW-846 9040C	1	14136002101A	05/16/2014 10:14	Michele L Graham	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-051414 Water
SSFL Phase 3 Subarea 5B/C

LL Sample # WW 7465089
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 15:30 by PH

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7702 SDG#: PH177-02EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	
12971	Acenaphthene	83-32-9	0.053	U	0.053	0.011	1
12971	Acenaphthylene	208-96-8	0.053	U	0.053	0.011	1
12971	Anthracene	120-12-7	0.053	U	0.053	0.011	1
12971	Benzo(a)anthracene	56-55-3	0.053	U	0.053	0.011	1
12971	Benzo(a)pyrene	50-32-8	0.053	U	0.053	0.011	1
12971	Benzo(b)fluoranthene	205-99-2	0.053	U	0.053	0.011	1
12971	Benzo(e)pyrene	192-97-2	0.053	U	0.053	0.011	1
12971	Benzo(g,h,i)perylene	191-24-2	0.053	U	0.053	0.011	1
12971	Benzo(k)fluoranthene	207-08-9	0.053	U	0.053	0.011	1
12971	Butylbenzylphthalate	85-68-7	1.1	U	1.1	0.053	1
12971	Di-n-butylphthalate	84-74-2	0.26	J	1.1	0.053	1
12971	Chrysene	218-01-9	0.053	U	0.053	0.011	1
12971	Dibenz(a,h)anthracene	53-70-3	0.053	U	0.053	0.011	1
12971	Diethylphthalate	84-66-2	0.084	J	1.1	0.053	1
12971	Dimethylphthalate	131-11-3	1.1	U	1.1	0.053	1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.11	J	1.1	0.053	1
12971	Fluoranthene	206-44-0	0.053	U	0.053	0.011	1
12971	Fluorene	86-73-7	0.053	U	0.053	0.011	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.053	U	0.053	0.011	1
12971	1-Methylnaphthalene	90-12-0	0.053	U	0.053	0.011	1
12971	2-Methylnaphthalene	91-57-6	0.053	U	0.053	0.011	1
12971	Naphthalene	91-20-3	0.053	U	0.053	0.032	1
12971	N-Nitrosodimethylamine	62-75-9	0.053	U	0.053	0.011	1
12971	Di-n-octylphthalate	117-84-0	1.1	U	1.1	0.053	1
12971	Phenanthrene	85-01-8	0.053	U	0.053	0.032	1
12971	Pyrene	129-00-0	0.053	U	0.053	0.011	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Sufficient sample was not available to repeat the analysis.

GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1
Perchlorate	**SW-846 6850 1/2007**		**ug/l**		**ug/l**	**ug/l**	
06386	6b Perchlorate (Method 6850)	14797-73-0	0.40	J	1.0	0.20	1
Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	
13092	Aroclor 5432	63496-31-1	0.40	U	0.40	0.081	1
13092	Aroclor 5442	12642-23-8	0.40	U	0.40	0.081	1
13092	Aroclor 5460	11126-42-4	0.40	U	0.40	0.089	1
13092	PCB-1016	12674-11-2	0.40	U	0.40	0.081	1
13092	PCB-1221	11104-28-2	0.40	U	0.40	0.081	1
13092	PCB-1232	11141-16-5	0.40	U	0.40	0.16	1
13092	PCB-1242	53469-21-9	0.40	U	0.40	0.081	1
13092	PCB-1248	12672-29-6	0.40	U	0.40	0.081	1
13092	PCB-1254	11097-69-1	0.40	U	0.40	0.081	1
13092	PCB-1260	11096-82-5	0.40	U	0.40	0.12	1
13092	PCB-1262	37324-23-5	0.40	U	0.40	0.16	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-051414 Water
SSFL Phase 3 Subarea 5B/C

LL Sample # WW 7465089
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 15:30 by PH

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7702 SDG#: PH177-02EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		ug/l		ug/l	ug/l	
13092	PCB-1268	11100-14-4	0.40	U	0.40	0.13	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		mg/l		mg/l	mg/l	
10365	EFH (C12-C14)	n.a.	0.097	U	0.097	0.049	1
10365	EFH (C15-C20)	n.a.	0.097	U	0.097	0.049	1
10365	EFH (C21-C30)	n.a.	0.097	U	0.097	0.049	1
10365	EFH (C30 - C40)	n.a.	0.49	U	0.49	0.097	1
10365	EFH (C8-C11)	n.a.	0.097	U	0.097	0.049	1
13205	EFH C12-C14 w/ SiGel	n.a.	0.097	U	0.097	0.049	1
13205	EFH C15-C20 w/ SiGel	n.a.	0.097	U	0.097	0.049	1
13205	EFH C21-C30 w/ SiGel	n.a.	0.097	U	0.097	0.049	1
13205	EFH C30-C40 w/ SiGel	n.a.	0.49	U	0.49	0.097	1
13205	EFH C8-C11 w/ SiGel	n.a.	0.097	U	0.097	0.049	1

The reverse surrogate, capric acid, is present at <1%.
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The LCS/LCSD surrogate(s) recovery is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.

Metals	**SW-846 6010C**		mg/l		mg/l	mg/l	
01743	Aluminum	7429-90-5	0.400	U	0.400	0.0828	1
07044	Antimony	7440-36-0	0.0400	U	0.0400	0.0053	1
07035	Arsenic	7440-38-2	0.0400	U	0.0400	0.0068	1
07046	Barium	7440-39-3	0.0100	U	0.0100	0.00033	1
07047	Beryllium	7440-41-7	0.0100	U	0.0100	0.00067	1
08014	Boron	7440-42-8	0.100	U	0.100	0.0084	1
07049	Cadmium	7440-43-9	0.0100	U	0.0100	0.00076	1
01750	Calcium	7440-70-2	0.400	U	0.400	0.0334	1
07051	Chromium	7440-47-3	0.0300	U	0.0300	0.0016	1
07052	Cobalt	7440-48-4	0.0100	U	0.0100	0.0013	1
07053	Copper	7440-50-8	0.0200	U	0.0200	0.0027	1
01754	Iron	7439-89-6	0.400	U	0.400	0.0430	1
07055	Lead	7439-92-1	0.0300	U	0.0300	0.0047	1
01756	Lithium	7439-93-2	0.0400	U	0.0400	0.0047	1
01757	Magnesium	7439-95-4	0.200	U	0.200	0.0167	1
07058	Manganese	7439-96-5	0.0100	U	0.0100	0.00083	1
07060	Molybdenum	7439-98-7	0.0200	U	0.0200	0.0017	1
07061	Nickel	7440-02-0	0.0200	U	0.0200	0.0015	1
10143	Phosphorus	7723-14-0	0.200	U	0.200	0.0418	1
01762	Potassium	7440-09-7	0.114	J	1.00	0.0980	1
01767	Sodium	7440-23-5	2.00	U	2.00	0.167	1
07069	Tin	7440-31-5	0.0400	U	0.0400	0.0029	1
07070	Titanium	7440-32-6	0.0200	U	0.0200	0.0017	1
07071	Vanadium	7440-62-2	0.0100	U	0.0100	0.0020	1
07072	Zinc	7440-66-6	0.0400	U	0.0400	0.0020	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-051414 Water
SSFL Phase 3 Subarea 5B/C

LL Sample # WW 7465089
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 15:30 by PH

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7702 SDG#: PH177-02EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	
10144	Zirconium	7440-67-7	0.100 U	0.100	0.0084	1
	SW-846 6020A		**mg/l**	**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040 U	0.0040	0.00050	1
06042	Silver	7440-22-4	0.0010 U	0.0010	0.00011	1
06044	Strontium	7440-24-6	0.0020 U	0.0020	0.00034	1
06045	Thallium	7440-28-0	0.0010 U	0.0010	0.00015	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A	7439-97-6	0.00020 U	0.00020	0.000060	1
Wet Chemistry	**SW-846 9040C**		**Std. Units**	**Std. Units**	**Std. Units**	
12152	28b pH (9040B and 9040C)	n.a.	5.8	0.010	0.010	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-051414 Water
SSFL Phase 3 Subarea 5B/C

LL Sample # WW 7465089
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 15:30 by PH

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7702 SDG#: PH177-02EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	
10915	2378-TCDD	1746-01-6	2.24	U	2.24	0.238	1
10915	12378-PeCDD	40321-76-4	0.412	JBQ	11.2	0.229	1
10915	123478-HxCDD	39227-28-6	0.185	JBQ	11.2	0.144	1
10915	123678-HxCDD	57653-85-7	11.2	U	11.2	0.144	1
10915	123789-HxCDD	19408-74-3	0.316	JBQ	11.2	0.149	1
10915	1234678-HpCDD	35822-46-9	0.945	JB	11.2	0.157	1
10915	OCDD	3268-87-9	1.42	JBQ	22.4	0.209	1
10915	2378-TCDF	51207-31-9	2.24	U	2.24	0.158	1
10915	12378-PeCDF	57117-41-6	0.405	JBQ	11.2	0.100	1
10915	23478-PeCDF	57117-31-4	0.122	JBQ	11.2	0.0986	1
10915	123478-HxCDF	70648-26-9	11.2	U	11.2	0.0817	1
10915	123678-HxCDF	57117-44-9	0.275	JBQ	11.2	0.0811	1
10915	123789-HxCDF	72918-21-9	0.260	JB	11.2	0.0739	1
10915	234678-HxCDF	60851-34-5	0.237	JBQ	11.2	0.0794	1
10915	1234678-HpCDF	67562-39-4	0.349	JBQ	11.2	0.0558	1
10915	1234789-HpCDF	55673-89-7	0.206	JB	11.2	0.0631	1
10915	OCDF	39001-02-0	1.09	JB	22.4	0.172	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	0.0378				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	80	25 - 164
13C12-12378-PeCDD	84	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	83	17 - 157
13C12-2378-TCDF	84	24 - 169
13C12-12378-PeCDF	97	24 - 185
13C12-23478-PeCDF	90	21 - 178
13C12-123478-HxCDF	89	26 - 152
13C12-123678-HxCDF	91	26 - 123
13C12-234678-HxCDF	91	28 - 136
13C12-123789-HxCDF	107	29 - 147
13C12-1234678-HpCDF	92	28 - 143
13C12-1234789-HpCDF	89	26 - 138
13C12-OCDF	85	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: EB2-051414 Water
SSFL Phase 3 Subarea 5B/C

LL Sample # WW 7465089
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 15:30 by PH

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7702 SDG#: PH177-02EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: EB2-051414 Water
SSFL Phase 3 Subarea 5B/C

LL Sample # WW 7465089
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 15:30 by PH

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7702 SDG#: PH177-02EB

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14140WAB026	05/23/2014 19:20	Chad A Moline	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	14140WAB026	05/20/2014 19:00	Nicholas W Shroyer	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14142A94A	05/27/2014 13:18	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14142A94A	05/27/2014 13:18	Marie D Beamenderfer	1
06386	6b Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141390018A	05/19/2014 17:48	Richard A Shober	1
13092	21b PCBs and PCTs 8082A	SW-846 8082A	1	141400007A	05/22/2014 12:13	Jessica L Miller	1
13093	PCB/PCT Waters Update IV	SW-846 3510C	1	141400007A	05/20/2014 18:00	David V Hershey Jr	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141390014A	05/20/2014 04:26	Heather E Williams	1
13205	10b TPH-DRO (w/Si Gel)	SW-846 8015B modified	1	141390015A	05/20/2014 18:52	Heather E Williams	1
13212	EFH Water Ext. w/SiGel	SW-846 3510C	1	141390015A	05/19/2014 16:35	JoElla L Rice	1
11203	EFH Waters Extraction	SW-846 3510C	1	141390014A	05/19/2014 16:35	JoElla L Rice	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14136003	05/21/2014 07:38	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B October 1994	1	14136003	05/17/2014 11:00	Chin F Ly	1
01743	Aluminum	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1
07044	Antimony	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1
07046	Barium	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1
07047	Beryllium	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1
08014	Boron	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1
01750	Calcium	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1
07051	Chromium	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1
07052	Cobalt	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1
07053	Copper	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1
01754	Iron	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1
07055	Lead	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1
01756	Lithium	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1
07058	Manganese	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1
07060	Molybdenum	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1
07061	Nickel	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1
10143	Phosphorus	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1
01762	Potassium	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1
01767	Sodium	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-051414 Water
SSFL Phase 3 Subarea 5B/C

LL Sample # WW 7465089
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 15:30 by PH

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7702 SDG#: PH177-02EB

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07069	Tin	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1
07070	Titanium	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1
07072	Zinc	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1
10144	Zirconium	SW-846 6010C	1	141390635001	05/20/2014 22:25	Katlin N Cataldi	1
06041	Selenium	SW-846 6020A	1	141390639001B	05/20/2014 21:12	John P Hook	1
06042	Silver	SW-846 6020A	1	141390639001A	05/20/2014 21:12	John P Hook	1
06044	Strontium	SW-846 6020A	1	141390639001A	05/20/2014 21:12	John P Hook	1
06045	Thallium	SW-846 6020A	1	141390639001A	05/20/2014 21:12	John P Hook	1
00259	3b Mercury 7470A	SW-846 7470A	1	141415713001	05/22/2014 06:53	Damary Valentin	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	141390635001	05/20/2014 10:03	Micaela L Dishong	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	141390639001	05/20/2014 09:34	Micaela L Dishong	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	141395713003	05/20/2014 11:45	Micaela L Dishong	1
05713	WW SW846 Hg Digest	SW-846 7470A	2	141415713001	05/21/2014 23:55	Annamaria Kuhns	1
12152	28b pH (9040B and 9040C)	SW-846 9040C	1	14136002101A	05/16/2014 10:18	Michele L Graham	1

*=This limit was used in the evaluation of the final result

Sample Description: TB1-051414 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7465090
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 08:00

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7703 SDG#: PH177-03TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14142A94A	05/27/2014 13:44	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14142A94A	05/27/2014 13:44	Marie D Beamenderfer	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-841-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465091
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 09:00 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7704 SDG#: PH177-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	1.7	U	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	9.7	J	19	6.2	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.69	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.4	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.2	1
13099	PCB-1242	53469-21-9	17	U	17	4.2	1
13099	PCB-1248	12672-29-6	17	U	17	3.4	1
13099	PCB-1254	11097-69-1	17	U	17	4.5	1
13099	PCB-1260	11096-82-5	130		17	4.0	1
13099	PCB-1262	37324-23-5	17	U	17	3.4	1
13099	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C30-C40)	n.a.	10	U	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.2	U	5.2	2.1	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-841-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465091
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 09:00 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7704 SDG#: PH177-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
13197	EFH C21-C30 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	16,500		40.0	7.22	1
06944	Antimony	7440-36-0	4.00	U	4.00	0.741	1
06935	Arsenic	7440-38-2	3.04	J	4.00	0.701	1
06946	Barium	7440-39-3	93.4		1.00	0.0330	1
06947	Beryllium	7440-41-7	0.692	J	1.00	0.0671	1
07914	Boron	7440-42-8	10.0	U	10.0	0.841	1
06949	Cadmium	7440-43-9	1.00	U	1.00	0.0761	1
01650	Calcium	7440-70-2	3,000		20.0	3.34	1
06951	Chromium	7440-47-3	24.5		3.00	0.160	1
06952	Cobalt	7440-48-4	6.71		1.00	0.0991	1
06953	Copper	7440-50-8	14.6		2.00	0.290	1
01654	Iron	7439-89-6	24,900		40.0	3.62	1
06955	Lead	7439-92-1	10.7		3.00	0.500	1
01656	Lithium	7439-93-2	28.5		4.0	0.34	1
01657	Magnesium	7439-95-4	5,300		10.0	1.67	1
06958	Manganese	7439-96-5	342		1.00	0.0831	1
06960	Molybdenum	7439-98-7	0.446	J	2.00	0.170	1
06961	Nickel	7440-02-0	14.2		2.00	0.130	1
10145	Phosphorus	7723-14-0	407		10.0	2.89	1
01662	Potassium	7440-09-7	2,810		100	8.35	1
01667	Sodium	7440-23-5	213		100	16.7	1
06969	Tin	7440-31-5	3.69	J	10.0	0.220	1
06970	Titanium	7440-32-6	1,320		1.00	0.170	1
06971	Vanadium	7440-62-2	43.3		1.00	0.130	1
06972	Zinc	7440-66-6	61.6		4.00	0.200	1
10146	Zirconium	7440-67-7	3.31	J	5.00	0.841	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.400	U	0.400	0.100	2
06142	Silver	7440-22-4	0.0309	J	0.200	0.0260	2
06144	Strontium	7440-24-6	21.1		0.400	0.0681	2
06145	Thallium	7440-28-0	0.268		0.200	0.0300	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0171	U	0.0171	0.0103	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.30		0.0100	0.0100	1
	The pH was measured in water at 21.8 C.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-841-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465091
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 09:00 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7704 SDG#: PH177-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	3.0	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-841-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465091
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 09:00 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7704 SDG#: PH177-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.999	U	0.999	0.0652	1
11031	12378-PeCDD	40321-76-4	4.99	U	4.99	0.0836	1
11031	123478-HxCDD	39227-28-6	4.99	U	4.99	0.0392	1
11031	123678-HxCDD	57653-85-7	0.0953	JQ	4.99	0.0371	1
11031	123789-HxCDD	19408-74-3	0.170	JQ	4.99	0.0367	1
11031	1234678-HpCDD	35822-46-9	0.938	JB	4.99	0.0534	1
11031	OCDD	3268-87-9	10.5	B	9.99	0.0381	1
11031	2378-TCDF	51207-31-9	0.0638	JQ	0.999	0.0483	1
11031	12378-PeCDF	57117-41-6	2.47	JB	4.99	0.0380	1
11031	23478-PeCDF	57117-31-4	0.110	JQ	4.99	0.0369	1
11031	123478-HxCDF	70648-26-9	0.132	JQ	4.99	0.0417	1
11031	123678-HxCDF	57117-44-9	0.0375	JQ	4.99	0.0364	1
11031	123789-HxCDF	72918-21-9	0.104	J	4.99	0.0387	1
11031	234678-HxCDF	60851-34-5	0.0626	JQ	4.99	0.0372	1
11031	1234678-HpCDF	67562-39-4	0.330	JB	4.99	0.0281	1
11031	1234789-HpCDF	55673-89-7	0.0876	JQ	4.99	0.0426	1
11031	OCDF	39001-02-0	0.878	JBQ	9.99	0.0570	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.100				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	69	17 - 157
13C12-2378-TCDF	66	24 - 169
13C12-12378-PeCDF	69	24 - 185
13C12-23478-PeCDF	63	21 - 178
13C12-123478-HxCDF	63	26 - 152
13C12-123678-HxCDF	68	26 - 123
13C12-234678-HxCDF	66	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	80	28 - 143
13C12-1234789-HpCDF	59	26 - 138
13C12-OCDF	51	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-841-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465091
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 09:00 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7704 SDG#: PH177-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-841-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465091
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 09:00 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7704 SDG#: PH177-04

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14140SLA026	05/22/2014 06:50	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14140SLA026	05/20/2014 17:35	JoElla L Rice	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141360028A	05/21/2014 01:12	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141360028A	05/19/2014 05:50	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141410016A	05/23/2014 22:25	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141410017A	05/23/2014 22:46	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141410017A	05/21/2014 16:30	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141410016A	05/21/2014 16:30	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14140004	05/22/2014 22:49	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14140004	05/20/2014 11:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	141360637001	05/21/2014 10:11	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141360637001	05/21/2014 10:11	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141360637001	05/21/2014 10:11	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141360637001	05/21/2014 10:11	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	141360637001	05/21/2014 10:11	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141360637001	05/21/2014 10:11	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	141360637001	05/21/2014 10:11	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141360637001	05/21/2014 10:11	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141360637001	05/21/2014 10:11	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141360637001	05/21/2014 10:11	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141360637001	05/21/2014 10:11	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141360637001	05/21/2014 10:11	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	141360637001	05/21/2014 10:11	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141360637001	05/21/2014 10:11	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141360637001	05/21/2014 10:11	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141360637001	05/21/2014 10:11	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	141360637001	05/21/2014 10:11	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	141360637001	05/21/2014 10:11	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141360637001	05/21/2014 19:51	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141360637001	05/21/2014 10:11	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141360637001	05/21/2014 10:11	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	141360637001	05/21/2014 10:11	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	141360637001	05/21/2014 10:11	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	141360637001	05/21/2014 10:11	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141360637001	05/21/2014 10:11	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	141360637001	05/21/2014 10:11	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-841-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465091
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 09:00 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7704 SDG#: PH177-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	141360637001B	05/22/2014 05:00	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141360637001A	05/22/2014 05:00	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141360637001A	05/22/2014 05:00	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141360637001A	05/22/2014 05:00	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141360638001	05/20/2014 10:00	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141360637001	05/20/2014 22:53	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141360638001	05/19/2014 12:17	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14135039401A	05/15/2014 22:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14141162401A	05/21/2014 19:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-841-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465092
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 09:25 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7705 SDG#: PH177-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.74	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.37	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.37	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.74	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.74	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.74	1
12969	Benzo(e)pyrene	192-97-2	19	U	19	3.7	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.74	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.74	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.6	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.6	1
12969	Chrysene	218-01-9	0.52	J	1.8	0.37	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.74	1
12969	Diethylphthalate	84-66-2	20	U	20	6.6	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.6	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	8.2	J	20	6.6	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.74	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.74	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.74	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.74	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.74	1
12969	Naphthalene	91-20-3	1.0	J	1.8	0.74	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.74	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.6	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.74	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.74	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2	22.81
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	19	U	19	3.6	1
13099	PCB-1221	11104-28-2	19	U	19	5.6	1
13099	PCB-1232	11141-16-5	19	U	19	4.5	1
13099	PCB-1242	53469-21-9	19	U	19	4.5	1
13099	PCB-1248	12672-29-6	19	U	19	3.6	1
13099	PCB-1254	11097-69-1	19	U	19	4.9	1
13099	PCB-1260	11096-82-5	19	U	19	4.3	1
13099	PCB-1262	37324-23-5	19	U	19	3.6	1
13099	PCB-1268	11100-14-4	19	U	19	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	5.5	U	5.5	2.2	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-841-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465092
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 09:25 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7705 SDG#: PH177-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	3.7	J	5.5	2.2	1
12952	EFH (C30-C40)	n.a.	9.3	J	11	4.4	1
12952	EFH (C8-C11)	n.a.	5.5	U	5.5	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.4	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	16,000		43.0	7.74	1
06944	Antimony	7440-36-0	4.30	U	4.30	0.795	1
06935	Arsenic	7440-38-2	2.99	J	4.30	0.752	1
06946	Barium	7440-39-3	103		1.07	0.0354	1
06947	Beryllium	7440-41-7	0.645	J	1.07	0.0720	1
07914	Boron	7440-42-8	0.976	J	10.7	0.902	1
06949	Cadmium	7440-43-9	1.07	U	1.07	0.0816	1
01650	Calcium	7440-70-2	2,370		21.5	3.59	1
06951	Chromium	7440-47-3	24.6		3.22	0.172	1
06952	Cobalt	7440-48-4	6.85		1.07	0.106	1
06953	Copper	7440-50-8	15.5		2.15	0.311	1
01654	Iron	7439-89-6	22,400		43.0	3.89	1
06955	Lead	7439-92-1	9.82		3.22	0.537	1
01656	Lithium	7439-93-2	23.2		4.3	0.37	1
01657	Magnesium	7439-95-4	4,660		10.7	1.79	1
06958	Manganese	7439-96-5	322		1.07	0.0891	1
06960	Molybdenum	7439-98-7	0.412	J	2.15	0.183	1
06961	Nickel	7440-02-0	14.7		2.15	0.140	1
10145	Phosphorus	7723-14-0	361		10.7	3.10	1
01662	Potassium	7440-09-7	3,340		107	8.96	1
01667	Sodium	7440-23-5	165		107	17.9	1
06969	Tin	7440-31-5	3.35	J	10.7	0.236	1
06970	Titanium	7440-32-6	1,250		1.07	0.183	1
06971	Vanadium	7440-62-2	41.1		1.07	0.140	1
06972	Zinc	7440-66-6	57.4		4.30	0.215	1
10146	Zirconium	7440-67-7	3.52	J	5.37	0.902	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.430	U	0.430	0.107	2
06142	Silver	7440-22-4	0.0287	J	0.215	0.0279	2
06144	Strontium	7440-24-6	21.4		0.430	0.0730	2
06145	Thallium	7440-28-0	0.261		0.215	0.0322	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0203		0.0175	0.0105	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-841-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465092
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 09:25 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7705 SDG#: PH177-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 22 C.	n.a.	8.52	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	9.6	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-841-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465092
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 09:25 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7705 SDG#: PH177-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.123	JQ	1.07	0.0807	1
11031	12378-PeCDD	40321-76-4	0.210	JQ	5.34	0.0550	1
11031	123478-HxCDD	39227-28-6	0.0809	JQ	5.34	0.0466	1
11031	123678-HxCDD	57653-85-7	0.341	J	5.34	0.0459	1
11031	123789-HxCDD	19408-74-3	0.541	J	5.34	0.0445	1
11031	1234678-HpCDD	35822-46-9	0.212	JBQ	5.34	0.0411	1
11031	OCDD	3268-87-9	1.69	JB	10.7	0.0349	1
11031	2378-TCDF	51207-31-9	0.156	J	1.07	0.0553	1
11031	12378-PeCDF	57117-41-6	0.465	JBQ	5.34	0.0324	1
11031	23478-PeCDF	57117-31-4	0.265	J	5.34	0.0329	1
11031	123478-HxCDF	70648-26-9	0.164	JQ	5.34	0.0345	1
11031	123678-HxCDF	57117-44-9	0.158	J	5.34	0.0303	1
11031	123789-HxCDF	72918-21-9	0.337	J	5.34	0.0351	1
11031	234678-HxCDF	60851-34-5	0.0989	JQ	5.34	0.0336	1
11031	1234678-HpCDF	67562-39-4	0.115	JBQ	5.34	0.0147	1
11031	1234789-HpCDF	55673-89-7	0.0517	JQ	5.34	0.0261	1
11031	OCDF	39001-02-0	0.281	JBQ	10.7	0.0675	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.233				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	75	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	69	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	63	21 - 178
13C12-123478-HxCDF	65	26 - 152
13C12-123678-HxCDF	70	26 - 123
13C12-234678-HxCDF	66	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	57	26 - 138
13C12-OCDF	48	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-841-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465092
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 09:25 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7705 SDG#: PH177-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-841-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465092
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 09:25 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7705 SDG#: PH177-05

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14140SLA026	05/22/2014 07:22	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14140SLA026	05/20/2014 17:35	JoElla L Rice	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14141A16A	05/21/2014 20:47	Laura M Krieger	22.81
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201413534510	05/15/2014 19:44	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201413534510	05/15/2014 19:44	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141360028A	05/21/2014 01:30	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141360028A	05/19/2014 05:50	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141410016A	05/23/2014 18:05	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141410017A	05/23/2014 18:27	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141410017A	05/21/2014 16:30	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141410016A	05/21/2014 16:30	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14140004	05/23/2014 02:49	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14140004	05/20/2014 11:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	141360637001	05/21/2014 10:15	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141360637001	05/21/2014 10:15	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141360637001	05/21/2014 10:15	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141360637001	05/21/2014 10:15	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	141360637001	05/21/2014 10:15	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141360637001	05/21/2014 10:15	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	141360637001	05/21/2014 10:15	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141360637001	05/21/2014 10:15	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141360637001	05/21/2014 10:15	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141360637001	05/21/2014 10:15	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141360637001	05/21/2014 10:15	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141360637001	05/21/2014 10:15	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	141360637001	05/21/2014 10:15	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141360637001	05/21/2014 10:15	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141360637001	05/21/2014 10:15	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141360637001	05/21/2014 10:15	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	141360637001	05/21/2014 10:15	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	141360637001	05/21/2014 10:15	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141360637001	05/21/2014 19:55	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141360637001	05/21/2014 10:15	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141360637001	05/21/2014 10:15	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	141360637001	05/21/2014 10:15	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-841-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465092
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 09:25 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7705 SDG#: PH177-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010C	1	141360637001	05/21/2014 10:15	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	141360637001	05/21/2014 10:15	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141360637001	05/21/2014 10:15	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	141360637001	05/21/2014 10:15	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	141360637001B	05/22/2014 05:02	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141360637001A	05/22/2014 05:02	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141360637001A	05/22/2014 05:02	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141360637001A	05/22/2014 05:02	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141360638001	05/20/2014 10:02	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141360637001	05/20/2014 22:53	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141360638001	05/19/2014 12:17	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14135039401A	05/15/2014 22:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14141162401A	05/21/2014 19:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-841-SA5B-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465093
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 09:35 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7706 SDG#: PH177-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.74	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.37	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.37	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.74	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.74	1
12969	Benzo(b)fluoranthene	205-99-2	0.85	J	1.8	0.74	1
12969	Benzo(e)pyrene	192-97-2	19	U	19	3.7	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.74	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.74	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.6	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.6	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.37	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.74	1
12969	Diethylphthalate	84-66-2	20	U	20	6.6	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.6	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	8.4	J	20	6.6	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.74	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.74	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.74	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.74	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.74	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.74	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.74	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.6	1
12969	Phenanthrene	85-01-8	0.78	J	1.8	0.74	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.74	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	25.46
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	19	U	19	3.6	1
13099	PCB-1221	11104-28-2	19	U	19	5.6	1
13099	PCB-1232	11141-16-5	19	U	19	4.5	1
13099	PCB-1242	53469-21-9	19	U	19	4.5	1
13099	PCB-1248	12672-29-6	19	U	19	3.6	1
13099	PCB-1254	11097-69-1	19	U	19	4.8	1
13099	PCB-1260	11096-82-5	19	U	19	4.3	1
13099	PCB-1262	37324-23-5	19	U	19	3.6	1
13099	PCB-1268	11100-14-4	19	U	19	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	5.5	U	5.5	2.2	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-841-SA5B-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465093
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 09:35 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7706 SDG#: PH177-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.4	1
12952	EFH (C8-C11)	n.a.	5.5	U	5.5	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.4	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	30,300		42.5	7.66	1
06944	Antimony	7440-36-0	4.25	U	4.25	0.786	1
06935	Arsenic	7440-38-2	4.07	J	4.25	0.744	1
06946	Barium	7440-39-3	182		1.06	0.0351	1
06947	Beryllium	7440-41-7	1.75		1.06	0.0712	1
07914	Boron	7440-42-8	53.1	U	53.1	4.46	5
	Reporting limits were raised due to interference from the sample matrix.						
06949	Cadmium	7440-43-9	1.06	U	1.06	0.0807	1
01650	Calcium	7440-70-2	11,000		21.2	3.55	1
06951	Chromium	7440-47-3	37.9		3.19	0.170	1
06952	Cobalt	7440-48-4	10.5		1.06	0.105	1
06953	Copper	7440-50-8	34.6		2.12	0.308	1
01654	Iron	7439-89-6	53,000		212	19.2	5
06955	Lead	7439-92-1	24.4		3.19	0.531	1
01656	Lithium	7439-93-2	69.2		4.2	0.36	1
01657	Magnesium	7439-95-4	11,900		10.6	1.77	1
06958	Manganese	7439-96-5	461		1.06	0.0882	1
06960	Molybdenum	7439-98-7	0.295	J	2.12	0.181	1
06961	Nickel	7440-02-0	24.9		2.12	0.138	1
10145	Phosphorus	7723-14-0	620		10.6	3.07	1
01662	Potassium	7440-09-7	4,480		106	8.86	1
01667	Sodium	7440-23-5	1,440		106	17.7	1
06969	Tin	7440-31-5	6.02	J	10.6	0.234	1
06970	Titanium	7440-32-6	2,170		5.31	0.903	5
06971	Vanadium	7440-62-2	73.8		1.06	0.138	1
06972	Zinc	7440-66-6	126		4.25	0.212	1
10146	Zirconium	7440-67-7	4.51	J	5.31	0.892	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.174	J	0.425	0.106	2
06142	Silver	7440-22-4	0.202	J	0.212	0.0276	2
06144	Strontium	7440-24-6	74.5		0.425	0.0722	2
06145	Thallium	7440-28-0	0.495		0.212	0.0319	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0175	U	0.0175	0.0105	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-841-SA5B-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465093
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 09:35 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7706 SDG#: PH177-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 22.1 C.	n.a.	8.26	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	9.5	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-841-SA5B-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465093
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 09:35 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7706 SDG#: PH177-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.131	JQ	1.06	0.0894	1
11031	12378-PeCDD	40321-76-4	0.207	J	5.32	0.0618	1
11031	123478-HxCDD	39227-28-6	5.32	U	5.32	0.0456	1
11031	123678-HxCDD	57653-85-7	0.0701	J	5.32	0.0470	1
11031	123789-HxCDD	19408-74-3	0.124	JQ	5.32	0.0480	1
11031	1234678-HpCDD	35822-46-9	0.182	JBQ	5.32	0.0435	1
11031	OCDD	3268-87-9	0.684	JBQ	10.6	0.0351	1
11031	2378-TCDF	51207-31-9	0.0488	JQ	1.06	0.0476	1
11031	12378-PeCDF	57117-41-6	0.215	JBQ	5.32	0.0337	1
11031	23478-PeCDF	57117-31-4	0.132	JQ	5.32	0.0328	1
11031	123478-HxCDF	70648-26-9	0.100	JQ	5.32	0.0305	1
11031	123678-HxCDF	57117-44-9	0.0727	JQ	5.32	0.0268	1
11031	123789-HxCDF	72918-21-9	0.0302	JQ	5.32	0.0256	1
11031	234678-HxCDF	60851-34-5	0.0534	JQ	5.32	0.0282	1
11031	1234678-HpCDF	67562-39-4	0.0286	JBQ	5.32	0.0143	1
11031	1234789-HpCDF	55673-89-7	0.0495	J	5.32	0.0233	1
11031	OCDF	39001-02-0	0.135	JBQ	10.6	0.0547	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.215				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	73	28 - 130
13C12-123789-HxCDD	75	28 - 130
13C12-1234678-HpCDD	75	23 - 140
13C12-OCDD	63	17 - 157
13C12-2378-TCDF	63	24 - 169
13C12-12378-PeCDF	67	24 - 185
13C12-23478-PeCDF	61	21 - 178
13C12-123478-HxCDF	61	26 - 152
13C12-123678-HxCDF	66	26 - 123
13C12-234678-HxCDF	64	28 - 136
13C12-123789-HxCDF	80	29 - 147
13C12-1234678-HpCDF	79	28 - 143
13C12-1234789-HpCDF	56	26 - 138
13C12-OCDF	47	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-841-SA5B-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465093
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 09:35 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7706 SDG#: PH177-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-841-SA5B-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465093
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 09:35 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7706 SDG#: PH177-06

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14140SLA026	05/22/2014 07:54	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14140SLA026	05/20/2014 17:35	JoElla L Rice	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14141A16A	05/21/2014 21:25	Laura M Krieger	25.46
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201413534510	05/15/2014 19:45	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201413534510	05/15/2014 19:45	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141360028A	05/21/2014 01:49	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141360028A	05/19/2014 05:50	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141410016A	05/23/2014 18:27	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141410017A	05/23/2014 18:48	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141410017A	05/21/2014 16:30	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141410016A	05/21/2014 16:30	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14140004	05/23/2014 03:45	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14140004	05/20/2014 11:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	141360637001	05/21/2014 10:27	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141360637001	05/21/2014 10:27	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141360637001	05/21/2014 10:27	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141360637001	05/21/2014 10:27	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	141360637001	05/21/2014 10:27	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141360637001	05/21/2014 20:11	Katlin N Cataldi	5
06949	Cadmium	SW-846 6010C	1	141360637001	05/21/2014 20:07	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141360637001	05/21/2014 10:27	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141360637001	05/21/2014 10:27	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141360637001	05/21/2014 10:27	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141360637001	05/21/2014 10:27	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141360637001	05/21/2014 20:11	Katlin N Cataldi	5
06955	Lead	SW-846 6010C	1	141360637001	05/21/2014 10:27	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141360637001	05/21/2014 10:27	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141360637001	05/21/2014 10:27	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141360637001	05/21/2014 10:27	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	141360637001	05/21/2014 10:27	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	141360637001	05/21/2014 10:27	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141360637001	05/21/2014 20:07	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141360637001	05/21/2014 10:27	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141360637001	05/21/2014 10:27	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	141360637001	05/21/2014 10:27	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-841-SA5B-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465093
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 09:35 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7706 SDG#: PH177-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010C	1	141360637001	05/21/2014 20:11	Katlin N Cataldi	5
06971	Vanadium	SW-846 6010C	1	141360637001	05/21/2014 10:27	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141360637001	05/21/2014 10:27	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	141360637001	05/21/2014 10:27	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	141360637001B	05/22/2014 05:09	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141360637001A	05/22/2014 05:09	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141360637001A	05/22/2014 05:09	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141360637001A	05/22/2014 05:09	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141360638001	05/20/2014 10:04	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141360637001	05/20/2014 22:53	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141360638001	05/19/2014 12:17	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14135039401A	05/15/2014 22:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14141162401A	05/21/2014 19:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-757-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7465094
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 11:35 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7707 SDG#: PH177-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	0.35	J	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.2	J	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	3.8		1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	7.8		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	11	J	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	2.8		1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	2.5		1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	12	J	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	5.4		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	J	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	14	J	18	6.1	1
12969	Fluoranthene	206-44-0	1.7	J	1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.3	J	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.68	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	1.4	J	1.7	0.68	1
12969	Pyrene	129-00-0	2.0		1.7	0.68	1
Perchlorate	**SW-846 6850 1/2007**		**ug/kg**		**ug/kg**	**ug/kg**	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.1	U	5.1	2.1	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.1	1
13099	PCB-1232	11141-16-5	17	U	17	4.1	1
13099	PCB-1242	53469-21-9	17	U	17	4.1	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	17	U	17	4.4	1
13099	PCB-1260	11096-82-5	17	U	17	3.9	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,200		39.9	7.18	1
06944	Antimony	7440-36-0	3.99	U	3.99	0.737	1
06935	Arsenic	7440-38-2	0.941	J	3.99	0.697	1
06946	Barium	7440-39-3	110		0.996	0.0329	1
06947	Beryllium	7440-41-7	0.542	J	0.996	0.0668	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-757-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7465094
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 11:35 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7707 SDG#: PH177-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**	**mg/kg**	**mg/kg**	
07914	Boron	7440-42-8	0.845 J	9.96	0.837	1
06949	Cadmium	7440-43-9	0.996 U	0.996	0.0757	1
01650	Calcium	7440-70-2	2,880	19.9	3.33	1
06951	Chromium	7440-47-3	22.1	2.99	0.159	1
06952	Cobalt	7440-48-4	6.11	0.996	0.0986	1
06953	Copper	7440-50-8	18.8	1.99	0.289	1
01654	Iron	7439-89-6	21,400	39.9	3.61	1
06955	Lead	7439-92-1	12.4	2.99	0.498	1
01656	Lithium	7439-93-2	17.3	4.0	0.34	1
01657	Magnesium	7439-95-4	4,010	9.96	1.66	1
06958	Manganese	7439-96-5	333	0.996	0.0827	1
06960	Molybdenum	7439-98-7	0.524 J	1.99	0.169	1
06961	Nickel	7440-02-0	11.5	1.99	0.130	1
10145	Phosphorus	7723-14-0	399	9.96	2.88	1
01662	Potassium	7440-09-7	3,090	99.6	8.31	1
01667	Sodium	7440-23-5	114	99.6	16.6	1
06969	Tin	7440-31-5	3.39 J	9.96	0.219	1
06970	Titanium	7440-32-6	1,230	0.996	0.169	1
06971	Vanadium	7440-62-2	40.7	0.996	0.130	1
06972	Zinc	7440-66-6	125	3.99	0.199	1
10146	Zirconium	7440-67-7	3.41 J	4.98	0.837	1
	SW-846 6020A		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.100 J	0.399	0.0996	2
06142	Silver	7440-22-4	0.0508 J	0.199	0.0259	2
06144	Strontium	7440-24-6	26.3	0.399	0.0678	2
06145	Thallium	7440-28-0	0.254	0.199	0.0299	2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0292	0.0165	0.0099	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.74	0.0100	0.0100	1
	The pH was measured in water at 22.2 C.					
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.6	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-757-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7465094
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 11:35 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7707 SDG#: PH177-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.108	JQ	1.01	0.0712	1
11031	12378-PeCDD	40321-76-4	0.716	J	5.05	0.0674	1
11031	123478-HxCDD	39227-28-6	1.24	J	5.05	0.0900	1
11031	123678-HxCDD	57653-85-7	3.76	J	5.05	0.0945	1
11031	123789-HxCDD	19408-74-3	2.26	J	5.05	0.0940	1
11031	1234678-HpCDD	35822-46-9	133	B	5.05	0.130	1
11031	OCDD	3268-87-9	1,650	B	10.1	0.105	1
11031	2378-TCDF	51207-31-9	1.01	U	1.01	0.0602	1
11031	12378-PeCDF	57117-41-6	0.315	JB	5.05	0.0463	1
11031	23478-PeCDF	57117-31-4	0.397	J	5.05	0.0426	1
11031	123478-HxCDF	70648-26-9	0.768	J	5.05	0.0882	1
11031	123678-HxCDF	57117-44-9	0.635	J	5.05	0.0891	1
11031	123789-HxCDF	72918-21-9	0.376	J	5.05	0.0816	1
11031	234678-HxCDF	60851-34-5	0.867	J	5.05	0.0858	1
11031	1234678-HpCDF	67562-39-4	18.9	B	5.05	0.0757	1
11031	1234789-HpCDF	55673-89-7	1.21	J	5.05	0.0882	1
11031	OCDF	39001-02-0	54.3	B	10.1	0.0696	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	3.88				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	84	25 - 164
13C12-12378-PeCDD	83	25 - 181
13C12-123478-HxCDD	87	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	88	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	85	17 - 157
13C12-2378-TCDF	77	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	73	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	91	29 - 147
13C12-1234678-HpCDF	80	28 - 143
13C12-1234789-HpCDF	79	26 - 138
13C12-OCDF	70	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-757-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7465094
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 11:35 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7707 SDG#: PH177-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-757-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7465094
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 11:35 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7707 SDG#: PH177-07

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14140SLA026	05/22/2014 13:48	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14140SLA026	05/20/2014 17:35	JoElla L Rice	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141360001A	05/16/2014 17:15	Richard A Shober	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141360028A	05/21/2014 02:07	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141360028A	05/19/2014 05:50	Roman Kuropatkin	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141360001A	05/16/2014 08:10	Maria Davenport	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14140004	05/23/2014 04:42	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14140004	05/20/2014 11:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	141360637001	05/21/2014 10:31	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141360637001	05/21/2014 10:31	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141360637001	05/21/2014 10:31	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141360637001	05/21/2014 10:31	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	141360637001	05/21/2014 10:31	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141360637001	05/21/2014 10:31	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	141360637001	05/21/2014 10:31	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141360637001	05/21/2014 10:31	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141360637001	05/21/2014 10:31	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141360637001	05/21/2014 10:31	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141360637001	05/21/2014 10:31	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141360637001	05/21/2014 10:31	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	141360637001	05/21/2014 10:31	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141360637001	05/21/2014 10:31	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141360637001	05/21/2014 10:31	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141360637001	05/21/2014 10:31	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	141360637001	05/21/2014 10:31	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	141360637001	05/21/2014 10:31	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141360637001	05/21/2014 20:15	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141360637001	05/21/2014 10:31	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141360637001	05/21/2014 10:31	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	141360637001	05/21/2014 10:31	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	141360637001	05/21/2014 10:31	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	141360637001	05/21/2014 10:31	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141360637001	05/21/2014 10:31	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	141360637001	05/21/2014 10:31	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	141360637001B	05/22/2014 05:12	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141360637001A	05/22/2014 05:12	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141360637001A	05/22/2014 05:12	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141360637001A	05/22/2014 05:12	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-757-SA5C-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7465094
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 11:35 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7707 SDG#: PH177-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	141360638001	05/20/2014 10:06	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141360637001	05/20/2014 22:53	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141360638001	05/19/2014 12:17	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14135039401A	05/15/2014 22:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14141162401A	05/21/2014 19:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-757-SA5C-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7465095
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 11:50 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7708 SDG#: PH177-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.74	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.37	1
12969	Anthracene	120-12-7	0.54	J	1.8	0.37	1
12969	Benzo(a)anthracene	56-55-3	2.2		1.8	0.74	1
12969	Benzo(a)pyrene	50-32-8	3.0		1.8	0.74	1
12969	Benzo(b)fluoranthene	205-99-2	6.0		1.8	0.74	1
12969	Benzo(e)pyrene	192-97-2	5.2	J	19	3.7	1
12969	Benzo(g,h,i)perylene	191-24-2	2.0		1.8	0.74	1
12969	Benzo(k)fluoranthene	207-08-9	2.2		1.8	0.74	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.6	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.6	1
12969	Chrysene	218-01-9	4.6		1.8	0.37	1
12969	Dibenz(a,h)anthracene	53-70-3	0.81	J	1.8	0.74	1
12969	Diethylphthalate	84-66-2	20	U	20	6.6	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.6	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	12	J	20	6.6	1
12969	Fluoranthene	206-44-0	3.8		1.8	0.74	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.74	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.3	J	1.8	0.74	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.74	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.74	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.74	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.74	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.6	1
12969	Phenanthrene	85-01-8	1.9		1.8	0.74	1
12969	Pyrene	129-00-0	3.7		1.8	0.74	1
Perchlorate	**SW-846 6850 1/2007**		**ug/kg**		**ug/kg**	**ug/kg**	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.5	U	5.5	2.3	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	19	U	19	3.6	1
13099	PCB-1221	11104-28-2	19	U	19	5.6	1
13099	PCB-1232	11141-16-5	19	U	19	4.5	1
13099	PCB-1242	53469-21-9	19	U	19	4.5	1
13099	PCB-1248	12672-29-6	19	U	19	3.6	1
13099	PCB-1254	11097-69-1	11	J	19	4.8	1
13099	PCB-1260	11096-82-5	19	U	19	4.3	1
13099	PCB-1262	37324-23-5	19	U	19	3.6	1
13099	PCB-1268	11100-14-4	19	U	19	3.6	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	16,100		42.9	7.73	1
06944	Antimony	7440-36-0	4.29	U	4.29	0.794	1
06935	Arsenic	7440-38-2	1.24	J	4.29	0.751	1
06946	Barium	7440-39-3	120		1.07	0.0354	1
06947	Beryllium	7440-41-7	0.552	J	1.07	0.0719	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-757-SA5C-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7465095
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 11:50 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7708 SDG#: PH177-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
07914	Boron	7440-42-8	10.7	U	10.7	0.901	1
06949	Cadmium	7440-43-9	1.07	U	1.07	0.0815	1
01650	Calcium	7440-70-2	3,860		21.5	3.58	1
06951	Chromium	7440-47-3	20.0		3.22	0.172	1
06952	Cobalt	7440-48-4	6.74		1.07	0.106	1
06953	Copper	7440-50-8	16.5		2.15	0.311	1
01654	Iron	7439-89-6	21,400		42.9	3.88	1
06955	Lead	7439-92-1	9.62		3.22	0.536	1
01656	Lithium	7439-93-2	17.5		4.3	0.36	1
01657	Magnesium	7439-95-4	4,160		10.7	1.79	1
06958	Manganese	7439-96-5	315		1.07	0.0890	1
06960	Molybdenum	7439-98-7	0.686	J	2.15	0.182	1
06961	Nickel	7440-02-0	10.0		2.15	0.139	1
10145	Phosphorus	7723-14-0	489		10.7	3.10	1
01662	Potassium	7440-09-7	3,010		107	8.95	1
01667	Sodium	7440-23-5	130		107	17.9	1
06969	Tin	7440-31-5	3.68	J	10.7	0.236	1
06970	Titanium	7440-32-6	1,230		1.07	0.182	1
06971	Vanadium	7440-62-2	43.8		1.07	0.139	1
06972	Zinc	7440-66-6	112		4.29	0.215	1
10146	Zirconium	7440-67-7	2.94	J	5.36	0.901	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.429	U	0.429	0.107	2
06142	Silver	7440-22-4	0.0618	J	0.215	0.0279	2
06144	Strontium	7440-24-6	32.6		0.429	0.0729	2
06145	Thallium	7440-28-0	0.273		0.215	0.0322	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0575		0.0181	0.0108	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.68		0.0100	0.0100	1
	The pH was measured in water at 22.4 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	9.5		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-757-SA5C-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7465095
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 11:50 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7708 SDG#: PH177-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.09	U	1.09	0.0699	1
11031	12378-PeCDD	40321-76-4	0.364	JQ	5.46	0.0614	1
11031	123478-HxCDD	39227-28-6	0.485	J	5.46	0.104	1
11031	123678-HxCDD	57653-85-7	2.19	J	5.46	0.107	1
11031	123789-HxCDD	19408-74-3	1.25	J	5.46	0.0979	1
11031	1234678-HpCDD	35822-46-9	68.0	B	5.46	0.109	1
11031	OCDD	3268-87-9	1,000	B	10.9	0.131	1
11031	2378-TCDF	51207-31-9	0.0666	J	1.09	0.0510	1
11031	12378-PeCDF	57117-41-6	0.176	JBQ	5.46	0.0410	1
11031	23478-PeCDF	57117-31-4	0.0922	JQ	5.46	0.0370	1
11031	123478-HxCDF	70648-26-9	0.430	J	5.46	0.0751	1
11031	123678-HxCDF	57117-44-9	0.321	J	5.46	0.0747	1
11031	123789-HxCDF	72918-21-9	0.122	J	5.46	0.0762	1
11031	234678-HxCDF	60851-34-5	0.516	JQ	5.46	0.0735	1
11031	1234678-HpCDF	67562-39-4	11.4	B	5.46	0.0558	1
11031	1234789-HpCDF	55673-89-7	0.694	JQ	5.46	0.0674	1
11031	OCDF	39001-02-0	33.4	B	10.9	0.0733	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	1.59				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	83	25 - 164
13C12-12378-PeCDD	84	25 - 181
13C12-123478-HxCDD	89	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	88	28 - 130
13C12-1234678-HpCDD	88	23 - 140
13C12-OCDD	80	17 - 157
13C12-2378-TCDF	78	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	75	21 - 178
13C12-123478-HxCDF	78	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	80	29 - 147
13C12-1234678-HpCDF	81	28 - 143
13C12-1234789-HpCDF	72	26 - 138
13C12-OCDF	61	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-757-SA5C-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7465095
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 11:50 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7708 SDG#: PH177-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-757-SA5C-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7465095
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 11:50 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7708 SDG#: PH177-08

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14140SLA026	05/23/2014 12:39	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14140SLA026	05/20/2014 17:35	JoElla L Rice	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141360001A	05/16/2014 17:28	Richard A Shober	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141360028A	05/21/2014 02:25	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141360028A	05/19/2014 05:50	Roman Kuropatkin	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141360001A	05/16/2014 08:10	Maria Davenport	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14140004	05/23/2014 05:38	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14140004	05/20/2014 11:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	141360637001	05/21/2014 10:35	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141360637001	05/21/2014 10:35	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141360637001	05/21/2014 10:35	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141360637001	05/21/2014 10:35	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	141360637001	05/21/2014 10:35	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141360637001	05/21/2014 10:35	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	141360637001	05/21/2014 10:35	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141360637001	05/21/2014 10:35	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141360637001	05/21/2014 10:35	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141360637001	05/21/2014 10:35	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141360637001	05/21/2014 10:35	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141360637001	05/21/2014 10:35	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	141360637001	05/21/2014 10:35	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141360637001	05/21/2014 10:35	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141360637001	05/21/2014 10:35	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141360637001	05/21/2014 10:35	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	141360637001	05/21/2014 10:35	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	141360637001	05/21/2014 10:35	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141360637001	05/21/2014 20:19	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141360637001	05/21/2014 10:35	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141360637001	05/21/2014 10:35	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	141360637001	05/21/2014 10:35	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	141360637001	05/21/2014 10:35	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	141360637001	05/21/2014 10:35	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141360637001	05/21/2014 10:35	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	141360637001	05/21/2014 10:35	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	141360637001B	05/22/2014 05:14	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141360637001A	05/22/2014 05:14	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141360637001A	05/22/2014 05:14	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141360637001A	05/22/2014 05:14	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-757-SA5C-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7465095
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 11:50 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7708 SDG#: PH177-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	141360638001	05/20/2014 10:08	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141360637001	05/20/2014 22:53	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141360638001	05/19/2014 12:17	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14135039401A	05/15/2014 22:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14141162401A	05/21/2014 19:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-757-SA5C-SB-8.0-9.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7465096
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 12:00 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7709 SDG#: PH177-09

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.71	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.71	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.71	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.71	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.71	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.71	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.4	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.4	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.71	1
12969	Diethylphthalate	84-66-2	19	U	19	6.4	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.4	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	8.2	J	19	6.4	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.71	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.71	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.71	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.71	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.71	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.71	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.71	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.4	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.71	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.71	1
Perchlorate	**SW-846 6850 1/2007**		**ug/kg**		**ug/kg**	**ug/kg**	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.3	U	5.3	2.2	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.4	1
13099	PCB-1242	53469-21-9	18	U	18	4.4	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.7	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	11,800		41.0	7.39	1
06944	Antimony	7440-36-0	4.10	U	4.10	0.759	1
06935	Arsenic	7440-38-2	2.61	J	4.10	0.718	1
06946	Barium	7440-39-3	84.0		1.03	0.0338	1
06947	Beryllium	7440-41-7	0.415	J	1.03	0.0687	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-757-SA5C-SB-8.0-9.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7465096
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 12:00 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7709 SDG#: PH177-09

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
07914	Boron	7440-42-8	10.3	U	10.3	0.861	1
06949	Cadmium	7440-43-9	1.03	U	1.03	0.0779	1
01650	Calcium	7440-70-2	2,350		20.5	3.42	1
06951	Chromium	7440-47-3	18.6		3.08	0.164	1
06952	Cobalt	7440-48-4	4.50		1.03	0.101	1
06953	Copper	7440-50-8	11.7		2.05	0.297	1
01654	Iron	7439-89-6	16,100		41.0	3.71	1
06955	Lead	7439-92-1	6.28		3.08	0.513	1
01656	Lithium	7439-93-2	21.4		4.1	0.35	1
01657	Magnesium	7439-95-4	3,460		10.3	1.71	1
06958	Manganese	7439-96-5	681		1.03	0.0851	1
06960	Molybdenum	7439-98-7	2.05	U	2.05	0.174	1
06961	Nickel	7440-02-0	13.3		2.05	0.133	1
10145	Phosphorus	7723-14-0	269		10.3	2.96	1
01662	Potassium	7440-09-7	1,340		103	8.55	1
01667	Sodium	7440-23-5	89.9	J	103	17.1	1
06969	Tin	7440-31-5	2.93	J	10.3	0.226	1
06970	Titanium	7440-32-6	955		1.03	0.174	1
06971	Vanadium	7440-62-2	28.8		1.03	0.133	1
06972	Zinc	7440-66-6	40.9		4.10	0.205	1
10146	Zirconium	7440-67-7	3.14	J	5.13	0.861	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.410	U	0.410	0.103	2
06142	Silver	7440-22-4	0.0594	J	0.205	0.0267	2
06144	Strontium	7440-24-6	21.0		0.410	0.0697	2
06145	Thallium	7440-28-0	0.236		0.205	0.0308	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0173	U	0.0173	0.0104	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	9.07		0.0100	0.0100	1
	The pH was measured in water at 21.9 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	6.2		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-757-SA5C-SB-8.0-9.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7465096
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 12:00 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7709 SDG#: PH177-09

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.05	U	1.05	0.0561	1
11031	12378-PeCDD	40321-76-4	5.27	U	5.27	0.0374	1
11031	123478-HxCDD	39227-28-6	0.0420	JQ	5.27	0.0223	1
11031	123678-HxCDD	57653-85-7	0.0248	JQ	5.27	0.0218	1
11031	123789-HxCDD	19408-74-3	5.27	U	5.27	0.0230	1
11031	1234678-HpCDD	35822-46-9	0.426	JB	5.27	0.0371	1
11031	OCDD	3268-87-9	10.1	JB	10.5	0.0367	1
11031	2378-TCDF	51207-31-9	1.05	U	1.05	0.0333	1
11031	12378-PeCDF	57117-41-6	0.0502	JBQ	5.27	0.0201	1
11031	23478-PeCDF	57117-31-4	5.27	U	5.27	0.0208	1
11031	123478-HxCDF	70648-26-9	0.0237	J	5.27	0.0202	1
11031	123678-HxCDF	57117-44-9	0.0175	JQ	5.27	0.0174	1
11031	123789-HxCDF	72918-21-9	5.27	U	5.27	0.0202	1
11031	234678-HxCDF	60851-34-5	0.0223	JQ	5.27	0.0192	1
11031	1234678-HpCDF	67562-39-4	0.0999	JBQ	5.27	0.0132	1
11031	1234789-HpCDF	55673-89-7	5.27	U	5.27	0.0228	1
11031	OCDF	39001-02-0	0.287	JB	10.5	0.0534	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.00975				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	67	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	69	24 - 185
13C12-23478-PeCDF	62	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	71	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	89	28 - 143
13C12-1234789-HpCDF	57	26 - 138
13C12-OCDF	43	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-757-SA5C-SB-8.0-9.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7465096
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 12:00 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7709 SDG#: PH177-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-757-SA5C-SB-8.0-9.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7465096
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 12:00 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7709 SDG#: PH177-09

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14140SLA026	05/22/2014 08:25	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14140SLA026	05/20/2014 17:35	JoElla L Rice	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141360001A	05/16/2014 17:41	Richard A Shober	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141360028A	05/21/2014 02:44	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141360028A	05/19/2014 05:50	Roman Kuropatkin	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141360001A	05/16/2014 08:10	Maria Davenport	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14140004	05/23/2014 06:35	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14140004	05/20/2014 11:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	141360637001	05/21/2014 10:39	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141360637001	05/21/2014 10:39	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141360637001	05/21/2014 10:39	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141360637001	05/21/2014 10:39	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	141360637001	05/21/2014 10:39	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141360637001	05/21/2014 10:39	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	141360637001	05/21/2014 10:39	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141360637001	05/21/2014 10:39	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141360637001	05/21/2014 10:39	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141360637001	05/21/2014 10:39	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141360637001	05/21/2014 10:39	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141360637001	05/21/2014 10:39	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	141360637001	05/21/2014 10:39	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141360637001	05/21/2014 10:39	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141360637001	05/21/2014 10:39	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141360637001	05/21/2014 10:39	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	141360637001	05/21/2014 10:39	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	141360637001	05/21/2014 10:39	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141360637001	05/21/2014 20:23	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141360637001	05/21/2014 10:39	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141360637001	05/21/2014 10:39	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	141360637001	05/21/2014 10:39	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	141360637001	05/21/2014 10:39	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	141360637001	05/21/2014 10:39	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141360637001	05/21/2014 10:39	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	141360637001	05/21/2014 10:39	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	141360637001B	05/22/2014 05:16	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141360637001A	05/22/2014 05:16	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141360637001A	05/22/2014 05:16	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141360637001A	05/22/2014 05:16	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-757-SA5C-SB-8.0-9.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7465096
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 12:00 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7709 SDG#: PH177-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	141360638001	05/20/2014 10:10	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141360637001	05/20/2014 22:53	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141360638001	05/19/2014 12:17	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14135039401A	05/15/2014 22:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14141162401A	05/21/2014 19:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-842-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465097
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 13:55 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7710 SDG#: PH177-10

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	0.66	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	9.4	J	19	6.2	1
12969	Fluoranthene	206-44-0	0.85	J	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.69	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.4	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.2	1
13099	PCB-1242	53469-21-9	17	U	17	4.2	1
13099	PCB-1248	12672-29-6	17	U	17	3.4	1
13099	PCB-1254	11097-69-1	17	U	17	4.5	1
13099	PCB-1260	11096-82-5	17	U	17	4.0	1
13099	PCB-1262	37324-23-5	17	U	17	3.4	1
13099	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	4.9	J	5.2	2.1	1
12952	EFH (C30-C40)	n.a.	9.8	J	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.2	U	5.2	2.1	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-842-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465097
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 13:55 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7710 SDG#: PH177-10

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
13197	EFH C21-C30 w/ SiGel	n.a.	2.3	J	5.2	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	16,100		40.8	7.36	1
06944	Antimony	7440-36-0	4.08	U	4.08	0.755	1
06935	Arsenic	7440-38-2	5.58		4.08	0.715	1
06946	Barium	7440-39-3	91.4		1.02	0.0337	1
06947	Beryllium	7440-41-7	0.649	J	1.02	0.0684	1
07914	Boron	7440-42-8	1.03	J	10.2	0.857	1
06949	Cadmium	7440-43-9	1.02	U	1.02	0.0776	1
01650	Calcium	7440-70-2	2,170		20.4	3.41	1
06951	Chromium	7440-47-3	21.2		3.06	0.163	1
06952	Cobalt	7440-48-4	5.31		1.02	0.101	1
06953	Copper	7440-50-8	12.9		2.04	0.296	1
01654	Iron	7439-89-6	19,700		40.8	3.70	1
06955	Lead	7439-92-1	9.44		3.06	0.510	1
01656	Lithium	7439-93-2	20.1		4.1	0.35	1
01657	Magnesium	7439-95-4	3,700		10.2	1.70	1
06958	Manganese	7439-96-5	293		1.02	0.0847	1
06960	Molybdenum	7439-98-7	0.491	J	2.04	0.174	1
06961	Nickel	7440-02-0	12.8		2.04	0.133	1
10145	Phosphorus	7723-14-0	441		10.2	2.95	1
01662	Potassium	7440-09-7	3,260		102	8.51	1
01667	Sodium	7440-23-5	87.1	J	102	17.0	1
06969	Tin	7440-31-5	3.22	J	10.2	0.225	1
06970	Titanium	7440-32-6	1,120		1.02	0.174	1
06971	Vanadium	7440-62-2	37.9		1.02	0.133	1
06972	Zinc	7440-66-6	54.6		4.08	0.204	1
10146	Zirconium	7440-67-7	3.48	J	5.10	0.857	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.408	U	0.408	0.102	2
06142	Silver	7440-22-4	2.54		0.204	0.0265	2
06144	Strontium	7440-24-6	19.8		0.408	0.0694	2
06145	Thallium	7440-28-0	0.263		0.204	0.0306	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0128	J	0.0167	0.010	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.59		0.0100	0.0100	1
	The pH was measured in water at 22 C.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-842-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465097
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 13:55 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7710 SDG#: PH177-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	3.0	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-842-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465097
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 13:55 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7710 SDG#: PH177-10

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.998	U	0.998	0.0556	1
11031	12378-PeCDD	40321-76-4	0.657	J	4.99	0.0630	1
11031	123478-HxCDD	39227-28-6	1.67	J	4.99	0.0867	1
11031	123678-HxCDD	57653-85-7	3.04	J	4.99	0.0879	1
11031	123789-HxCDD	19408-74-3	3.56	J	4.99	0.0902	1
11031	1234678-HpCDD	35822-46-9	115	B	4.99	0.134	1
11031	OCDD	3268-87-9	1,330	B	9.98	0.0847	1
11031	2378-TCDF	51207-31-9	0.0880	JQ	0.998	0.0669	1
11031	12378-PeCDF	57117-41-6	0.169	JBQ	4.99	0.0475	1
11031	23478-PeCDF	57117-31-4	0.167	JQ	4.99	0.0510	1
11031	123478-HxCDF	70648-26-9	1.26	J	4.99	0.113	1
11031	123678-HxCDF	57117-44-9	2.43	J	4.99	0.0948	1
11031	123789-HxCDF	72918-21-9	0.253	JQ	4.99	0.120	1
11031	234678-HxCDF	60851-34-5	2.18	J	4.99	0.104	1
11031	1234678-HpCDF	67562-39-4	35.7	B	4.99	0.0623	1
11031	1234789-HpCDF	55673-89-7	2.80	J	4.99	0.112	1
11031	OCDF	39001-02-0	89.9	B	9.98	0.0832	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	4.03				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	80	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	82	23 - 140
13C12-OCDD	76	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	65	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	69	29 - 147
13C12-1234678-HpCDF	93	28 - 143
13C12-1234789-HpCDF	57	26 - 138
13C12-OCDF	46	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-842-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465097
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 13:55 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7710 SDG#: PH177-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-842-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465097
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 13:55 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7710 SDG#: PH177-10

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14140SLA026	05/22/2014 08:57	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14140SLA026	05/20/2014 17:35	JoElla L Rice	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141360028A	05/21/2014 03:02	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141360028A	05/19/2014 05:50	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141410016A	05/23/2014 18:48	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141410017A	05/23/2014 19:10	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141410017A	05/21/2014 16:30	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141410016A	05/21/2014 16:30	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14140004	05/23/2014 07:32	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14140004	05/20/2014 11:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	141360637001	05/21/2014 10:43	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141360637001	05/21/2014 10:43	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141360637001	05/21/2014 10:43	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141360637001	05/21/2014 10:43	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	141360637001	05/21/2014 10:43	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141360637001	05/21/2014 10:43	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	141360637001	05/21/2014 10:43	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141360637001	05/21/2014 10:43	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141360637001	05/21/2014 10:43	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141360637001	05/21/2014 10:43	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141360637001	05/21/2014 10:43	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141360637001	05/21/2014 10:43	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	141360637001	05/21/2014 10:43	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141360637001	05/21/2014 10:43	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141360637001	05/21/2014 10:43	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141360637001	05/21/2014 10:43	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	141360637001	05/21/2014 10:43	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	141360637001	05/21/2014 10:43	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141360637001	05/21/2014 20:27	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141360637001	05/21/2014 10:43	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141360637001	05/21/2014 10:43	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	141360637001	05/21/2014 10:43	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	141360637001	05/21/2014 10:43	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	141360637001	05/21/2014 10:43	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141360637001	05/21/2014 10:43	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	141360637001	05/21/2014 10:43	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-842-SA5B-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465097
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 13:55 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7710 SDG#: PH177-10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	141360637001B	05/22/2014 05:19	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141360637001A	05/22/2014 05:19	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141360637001A	05/22/2014 05:19	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141360637001A	05/22/2014 05:19	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141360638001	05/20/2014 10:12	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141360637001	05/20/2014 22:53	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141360638001	05/19/2014 12:17	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14135039401A	05/15/2014 22:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14141162401A	05/21/2014 19:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-842-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465098
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 14:25 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7711 SDG#: PH177-11*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.70	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	0.65	J	1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	9.4	J	19	6.3	1
12969	Fluoranthene	206-44-0	0.95	J	1.8	0.70	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.70	1
12969	2-Methylnaphthalene	91-57-6	0.87	J	1.8	0.70	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	0.71	J	1.8	0.70	1
12969	Pyrene	129-00-0	0.81	J	1.8	0.70	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2	24.7
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-842-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465098
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 14:25 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7711 SDG#: PH177-11*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.6		5.3	2.1	1
12952	EFH (C30-C40)	n.a.	12		11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	18,500		41.3	7.45	1
06944	Antimony	7440-36-0	4.13	U	4.13	0.764	1
06935	Arsenic	7440-38-2	35.4		4.13	0.723	1
06946	Barium	7440-39-3	91.5		1.03	0.0341	1
06947	Beryllium	7440-41-7	0.880	J	1.03	0.0692	1
07914	Boron	7440-42-8	10.3	U	10.3	0.868	1
06949	Cadmium	7440-43-9	1.03	U	1.03	0.0785	1
01650	Calcium	7440-70-2	6,280		20.7	3.45	1
06951	Chromium	7440-47-3	39.6		3.10	0.165	1
06952	Cobalt	7440-48-4	6.68		1.03	0.102	1
06953	Copper	7440-50-8	18.8		2.07	0.300	1
01654	Iron	7439-89-6	27,700		41.3	3.74	1
06955	Lead	7439-92-1	14.1		3.10	0.517	1
01656	Lithium	7439-93-2	43.9		4.1	0.35	1
01657	Magnesium	7439-95-4	7,700		10.3	1.73	1
06958	Manganese	7439-96-5	343		1.03	0.0857	1
06960	Molybdenum	7439-98-7	0.877	J	2.07	0.176	1
06961	Nickel	7440-02-0	22.5		2.07	0.134	1
10145	Phosphorus	7723-14-0	450		10.3	2.99	1
01662	Potassium	7440-09-7	2,400		103	8.62	1
01667	Sodium	7440-23-5	243		103	17.3	1
06969	Tin	7440-31-5	3.77	J	10.3	0.227	1
06970	Titanium	7440-32-6	1,400		1.03	0.176	1
06971	Vanadium	7440-62-2	43.9		1.03	0.134	1
06972	Zinc	7440-66-6	65.4		4.13	0.207	1
10146	Zirconium	7440-67-7	3.63	J	5.17	0.868	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.413	U	0.413	0.103	2
06142	Silver	7440-22-4	1.10		0.207	0.0269	2
06144	Strontium	7440-24-6	38.1		0.413	0.0702	2
06145	Thallium	7440-28-0	0.291		0.207	0.0310	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0174		0.0173	0.0104	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-842-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465098
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 14:25 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7711 SDG#: PH177-11*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D	n.a.	8.01	0.0100	0.0100	1
	The pH was measured in water at 22.2 C.					
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	5.1	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-842-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465098
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CDM Federal Programs Corp.
3201 Jermantown Road
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P7711 SDG#: PH177-11*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.101	JQ	1.05	0.0775	1
11031	12378-PeCDD	40321-76-4	0.888	JQ	5.24	0.0793	1
11031	123478-HxCDD	39227-28-6	2.01	J	5.24	0.138	1
11031	123678-HxCDD	57653-85-7	3.31	J	5.24	0.138	1
11031	123789-HxCDD	19408-74-3	4.09	J	5.24	0.141	1
11031	1234678-HpCDD	35822-46-9	118	B	5.24	0.163	1
11031	OCDD	3268-87-9	1,430	B	10.5	0.147	1
11031	2378-TCDF	51207-31-9	1.05	U	1.05	0.0802	1
11031	12378-PeCDF	57117-41-6	0.165	JBQ	5.24	0.0614	1
11031	23478-PeCDF	57117-31-4	0.170	JQ	5.24	0.0633	1
11031	123478-HxCDF	70648-26-9	1.26	J	5.24	0.155	1
11031	123678-HxCDF	57117-44-9	2.11	J	5.24	0.134	1
11031	123789-HxCDF	72918-21-9	0.260	JQ	5.24	0.178	1
11031	234678-HxCDF	60851-34-5	2.17	J	5.24	0.148	1
11031	1234678-HpCDF	67562-39-4	32.9	B	5.24	0.0762	1
11031	1234789-HpCDF	55673-89-7	2.60	J	5.24	0.140	1
11031	OCDF	39001-02-0	81.8	B	10.5	0.128	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	3.49				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	73	23 - 140
13C12-OCDD	68	17 - 157
13C12-2378-TCDF	63	24 - 169
13C12-12378-PeCDF	67	24 - 185
13C12-23478-PeCDF	58	21 - 178
13C12-123478-HxCDF	63	26 - 152
13C12-123678-HxCDF	70	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	63	29 - 147
13C12-1234678-HpCDF	85	28 - 143
13C12-1234789-HpCDF	50	26 - 138
13C12-OCDF	42	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-842-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465098
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 14:25 by WT

Submitted: 05/15/2014 10:00
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CDM Federal Programs Corp.
3201 Jermantown Road
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Fairfax VA 22030

P7711 SDG#: PH177-11*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-842-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465098
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 14:25 by WT

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CDM Federal Programs Corp.
3201 Jermantown Road
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Fairfax VA 22030

P7711 SDG#: PH177-11*

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14140SLA026	05/22/2014 09:30	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14140SLA026	05/20/2014 17:35	JoElla L Rice	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14141A16A	05/21/2014 22:03	Laura M Krieger	24.7
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201413534510	05/15/2014 19:47	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201413534510	05/15/2014 19:47	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141360028A	05/21/2014 03:20	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141360028A	05/19/2014 05:50	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141410016A	05/23/2014 19:10	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141410017A	05/23/2014 19:32	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141410017A	05/21/2014 16:30	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141410016A	05/21/2014 16:30	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14140004	05/23/2014 08:28	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14140004	05/20/2014 11:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	141360637001	05/21/2014 10:47	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141360637001	05/21/2014 10:47	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141360637001	05/21/2014 10:47	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141360637001	05/21/2014 10:47	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	141360637001	05/21/2014 10:47	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141360637001	05/21/2014 10:47	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	141360637001	05/21/2014 10:47	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141360637001	05/21/2014 10:47	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141360637001	05/21/2014 10:47	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141360637001	05/21/2014 10:47	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141360637001	05/21/2014 10:47	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141360637001	05/21/2014 20:31	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141360637001	05/21/2014 10:47	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141360637001	05/21/2014 10:47	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141360637001	05/21/2014 10:47	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141360637001	05/21/2014 10:47	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	141360637001	05/21/2014 10:47	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	141360637001	05/21/2014 10:47	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141360637001	05/21/2014 20:31	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141360637001	05/21/2014 10:47	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141360637001	05/21/2014 10:47	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	141360637001	05/21/2014 10:47	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG-SL-842-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7465098
LL Group # 1474671
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 14:25 by WT

Submitted: 05/15/2014 10:00
Reported: 06/09/2014 12:57

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P7711 SDG#: PH177-11*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010C	1	141360637001	05/21/2014 10:47	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	141360637001	05/21/2014 10:47	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141360637001	05/21/2014 10:47	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	141360637001	05/21/2014 10:47	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	141360637001B	05/22/2014 05:21	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141360637001A	05/22/2014 05:21	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141360637001A	05/22/2014 05:21	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141360637001A	05/22/2014 05:21	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141360638001	05/20/2014 10:14	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141360637001	05/20/2014 22:53	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141360638001	05/19/2014 12:17	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14135039401A	05/15/2014 22:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14141162401A	05/21/2014 19:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474671
Reported: 06/09/14 at 12:57 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14140SLA026	Sample number(s): 7465091-7465098									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	100		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	97		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	103		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	105		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	99		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	110		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	88		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	101		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	98		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	109		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	106		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	96		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	102		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	91		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	93		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	117		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	97		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	95		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	105		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	93		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	94		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	95		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	98		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	118		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	97		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	95		80-119		
Batch number: 14140WAB026	Sample number(s): 7465088-7465089									
Acenaphthene	0.050	U	0.050	0.010	ug/l	107	108	83-119	1	30
Acenaphthylene	0.050	U	0.050	0.010	ug/l	101	102	81-130	1	30
Anthracene	0.050	U	0.050	0.010	ug/l	102	103	83-125	0	30
Benzo(a)anthracene	0.050	U	0.050	0.010	ug/l	97	100	79-122	3	30
Benzo(a)pyrene	0.050	U	0.050	0.010	ug/l	93	98	80-121	6	30
Benzo(b)fluoranthene	0.050	U	0.050	0.010	ug/l	102	108	79-136	6	30
Benzo(e)pyrene	0.050	U	0.050	0.010	ug/l	96	100	67-118	4	30
Benzo(g,h,i)perylene	0.050	U	0.050	0.010	ug/l	73	83	72-132	12	30
Benzo(k)fluoranthene	0.050	U	0.050	0.010	ug/l	85	92	81-131	8	30
Butylbenzylphthalate	1.0	U	1.0	0.050	ug/l	98	97	40-138	0	30
Di-n-butylphthalate	0.18	J	1.0	0.050	ug/l	112	110	64-141	2	30
Chrysene	0.050	U	0.050	0.010	ug/l	96	98	84-118	3	30
Dibenz(a,h)anthracene	0.050	U	0.050	0.010	ug/l	59*	67	66-133	11	30
Diethylphthalate	0.10	J	1.0	0.050	ug/l	109	107	64-137	2	30
Dimethylphthalate	1.0	U	1.0	0.050	ug/l	105	104	23-139	1	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474671
Reported: 06/09/14 at 12:57 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Bis(2-Ethylhexyl)phthalate	0.12	J	1.0	0.050	ug/l	52*	46*	70-143	12	30
Fluoranthene	0.050	U	0.050	0.010	ug/l	99	99	84-124	1	30
Fluorene	0.050	U	0.050	0.010	ug/l	101	102	82-119	1	30
Indeno(1,2,3-cd)pyrene	0.050	U	0.050	0.010	ug/l	68	77	68-132	13	30
1-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	96	97	86-130	1	30
2-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	93	94	81-131	2	30
Naphthalene	0.050	U	0.050	0.030	ug/l	98	99	82-122	0	30
N-Nitrosodimethylamine	0.050	U	0.050	0.010	ug/l	57	56	56-96	3	30
Di-n-octylphthalate	1.0	U	1.0	0.050	ug/l	39*	36*	57-145	8	30
Phenanthrene	0.050	U	0.050	0.030	ug/l	97	98	83-116	1	30
Pyrene	0.050	U	0.050	0.010	ug/l	100	100	78-125	0	30
Batch number: 14141A16A	Sample number(s): 7465092-7465093,7465098									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	80		67-120		
Batch number: 14142A94A	Sample number(s): 7465089-7465090									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	109	111	80-133	2	30
Batch number: 141360001A	Sample number(s): 7465094-7465096									
6a Perchlorate (Method 6850)	5.0	U	5.0	2.1	ug/kg	105		85-115		
Batch number: 141390018A	Sample number(s): 7465088-7465089									
6b Perchlorate (Method 6850)	1.0	U	1.0	0.20	ug/l	97		85-115		
Batch number: 141360028A	Sample number(s): 7465091-7465098									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	80	85	36-106	5	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	95		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	100		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141400007A	Sample number(s): 7465088-7465089									
Aroclor 5432	0.40	U	0.40	0.080	ug/l					
Aroclor 5442	0.40	U	0.40	0.080	ug/l	72	72	34-115	0	30
Aroclor 5460	0.40	U	0.40	0.088	ug/l					
PCB-1016	0.40	U	0.40	0.080	ug/l	87	84	60-117	3	30
PCB-1221	0.40	U	0.40	0.080	ug/l					
PCB-1232	0.40	U	0.40	0.16	ug/l					
PCB-1242	0.40	U	0.40	0.080	ug/l					
PCB-1248	0.40	U	0.40	0.080	ug/l					
PCB-1254	0.40	U	0.40	0.080	ug/l					
PCB-1260	0.40	U	0.40	0.12	ug/l	92	90	67-128	2	30
PCB-1262	0.40	U	0.40	0.16	ug/l					
PCB-1268	0.40	U	0.40	0.13	ug/l					
Batch number: 141390014A	Sample number(s): 7465088-7465089									
EFH (C12-C14)	0.10	U	0.10	0.050	mg/l	78	75	67-109	4	30
EFH (C15-C20)	0.10	U	0.10	0.050	mg/l	84	83	71-119	1	30
EFH (C21-C30)	0.10	U	0.10	0.050	mg/l	84	83	75-117	1	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474671
Reported: 06/09/14 at 12:57 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
EFH (C30 - C40)	0.50	U	0.50	0.10	mg/l	58	63	44-134	8	30
EFH (C8-C11)	0.10	U	0.10	0.050	mg/l	60	56	55-86	7	30
Batch number: 141390015A	Sample number(s): 7465088-7465089									
EFH C12-C14 w/ SiGel	0.10	U	0.10	0.050	mg/l	69	65*	67-109	7	30
EFH C15-C20 w/ SiGel	0.10	U	0.10	0.050	mg/l	75	72	71-119	4	30
EFH C21-C30 w/ SiGel	0.10	U	0.10	0.050	mg/l	74*	72*	75-117	3	30
EFH C30-C40 w/ SiGel	0.50	U	0.50	0.10	mg/l	57	58	44-134	1	30
EFH C8-C11 w/ SiGel	0.10	U	0.10	0.050	mg/l	49*	44*	55-86	12	30
Batch number: 141410016A	Sample number(s): 7465091-7465093,7465097-7465098									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	117*		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	120		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	119		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	66		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	91		60-115		
Batch number: 141410017A	Sample number(s): 7465091-7465093,7465097-7465098									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	71*		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	74*		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	73*		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	53		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	57*		60-115		
Batch number: 141360637001	Sample number(s): 7465091-7465098									
Aluminum	40.0	U	40.0	7.21	mg/kg	100		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	108		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	103		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	102		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	98		80-120		
Boron	2.41	J	10.0	0.840	mg/kg	98		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	103		80-120		
Calcium	15.4	J	20.0	3.34	mg/kg	104		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	102		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	105		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	104		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	103		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	107		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	103		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	100		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	102		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	104		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	107		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	100		80-120		
Potassium	100 U		100.	8.34	mg/kg	99		80-120		
Sodium	100 U		100.	16.7	mg/kg	100		80-120		
Tin	1.42	J	10.0	0.220	mg/kg	102		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	104		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	102		80-120		
Zinc	4.00	U	4.00	0.200	mg/kg	102		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	103		80-120		
Batch number: 141360637001A	Sample number(s): 7465091-7465098									
Silver	0.200	U	0.200	0.0260	mg/kg	107		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474671
Reported: 06/09/14 at 12:57 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Strontium	0.105	J	0.400	0.0680	mg/kg	106		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	96		80-120		
Batch number: 141360637001B	Sample number(s): 7465091-7465098									
Selenium	0.400	U	0.400	0.100	mg/kg	112		80-120		
Batch number: 141360638001	Sample number(s): 7465091-7465098									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	91		85-120		
Batch number: 141390635001	Sample number(s): 7465088-7465089									
Aluminum	0.400	U	0.400	0.0828	mg/l	104	104	90-112	0	20
Antimony	0.0400	U	0.0400	0.0053	mg/l	99	100	88-111	1	20
Arsenic	0.0400	U	0.0400	0.0068	mg/l	105	109	90-113	3	20
Barium	0.0100	U	0.0100	0.00033	mg/l	102	105	90-110	3	20
Beryllium	0.0100	U	0.0100	0.00067	mg/l	99	103	90-111	4	20
Boron	0.100	U	0.100	0.0084	mg/l	94	97	90-110	3	20
Cadmium	0.0100	U	0.0100	0.00076	mg/l	105	107	90-112	2	20
Calcium	0.400	U	0.400	0.0334	mg/l	103	104	90-112	0	20
Chromium	0.0300	U	0.0300	0.0016	mg/l	100	104	90-110	4	20
Cobalt	0.0100	U	0.0100	0.0013	mg/l	108	110	90-110	2	20
Copper	0.0200	U	0.0200	0.0027	mg/l	100	104	90-112	4	20
Iron	0.400	U	0.400	0.0430	mg/l	104	103	90-112	1	20
Lead	0.0300	U	0.0300	0.0047	mg/l	107	110	88-116	3	20
Lithium	0.0400	U	0.0400	0.0047	mg/l	104	105	90-110	1	20
Magnesium	0.200	U	0.200	0.0167	mg/l	103	103	89-110	0	20
Manganese	0.0100	U	0.0100	0.00083	mg/l	102	106	90-110	4	20
Molybdenum	0.0200	U	0.0200	0.0017	mg/l	107	108	90-110	1	20
Nickel	0.0200	U	0.0200	0.0015	mg/l	108	111	90-111	2	20
Phosphorus	0.200	U	0.200	0.0418	mg/l	101	104	90-110	3	20
Potassium	1.00	U	1.00	0.0980	mg/l	102	103	90-110	1	20
Sodium	2.00	U	2.00	0.167	mg/l	102	103	87-114	1	20
Tin	0.0400	U	0.0400	0.0029	mg/l	104	105	90-110	1	20
Titanium	0.0200	U	0.0200	0.0017	mg/l	105	107	90-113	2	20
Vanadium	0.0100	U	0.0100	0.0020	mg/l	104	108	90-110	3	20
Zinc	0.0400	U	0.0400	0.0020	mg/l	103	106	90-110	3	20
Zirconium	0.100	U	0.100	0.0084	mg/l	108	106	90-110	1	20
Batch number: 141390639001A	Sample number(s): 7465088-7465089									
Silver	0.0010	U	0.0010	0.00011	mg/l	104	105	90-115	1	20
Strontium	0.0020	U	0.0020	0.00034	mg/l	101	101	90-110	0	20
Thallium	0.0010	U	0.0010	0.00015	mg/l	102	99	90-115	3	20
Batch number: 141390639001B	Sample number(s): 7465088-7465089									
Selenium	0.0040	U	0.0040	0.00050	mg/l	110	106	90-114	4	20
Batch number: 141415713001	Sample number(s): 7465088-7465089									
3b Mercury 7470A	0.00020	U	0.00020	0.00006 0	mg/l	103	98	90-115	5	20
Batch number: 14135039401A	Sample number(s): 7465091-7465098									
15a pH by 9045D						100		95-105		
Batch number: 14136002101A	Sample number(s): 7465088-7465089									
28b pH (9040B and 9040C)						100		90-110		
Batch number: 14141162401A	Sample number(s): 7465091-7465098									

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474671
Reported: 06/09/14 at 12:57 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14136003	Sample number(s): 7465088-7465089									
2378-TCDD	0.258	J	2.00	0.252	pg/l	89		60-150		
12378-PeCDD	0.307	J	10.0	0.220	pg/l	89		60-150		
123478-HxCDD	0.303	J	10.0	0.162	pg/l	89		60-150		
123678-HxCDD	0.312	J	10.0	0.172	pg/l	89		60-150		
123789-HxCDD	0.356	J	10.0	0.171	pg/l	91		60-150		
1234678-HpCDD	1.08	J	10.0	0.186	pg/l	90		60-150		
OCDD	5.19	J	20.0	0.271	pg/l	85		60-150		
2378-TCDF	2.00	U	2.00	0.174	pg/l	85		60-150		
12378-PeCDF	0.466	J	10.0	0.120	pg/l	88		60-150		
23478-PeCDF	0.402	J	10.0	0.110	pg/l	90		60-150		
123478-HxCDF	0.418	J	10.0	0.110	pg/l	91		60-150		
123678-HxCDF	0.243	J	10.0	0.108	pg/l	91		60-150		
123789-HxCDF	0.445	J	10.0	0.108	pg/l	89		60-150		
234678-HxCDF	0.153	J	10.0	0.101	pg/l	90		60-150		
1234678-HpCDF	0.515	J	10.0	0.0885	pg/l	90		60-150		
1234789-HpCDF	0.574	J	10.0	0.0907	pg/l	89		60-150		
OCDF	1.10	J	20.0	0.202	pg/l	86		60-150		
Batch number: 14140004	Sample number(s): 7465091-7465098									
2378-TCDD	1.00	U	1.00	0.0925	ng/kg	89		67-158		
12378-PeCDD	5.00	U	5.00	0.0577	ng/kg	91		70-142		
123478-HxCDD	5.00	U	5.00	0.0350	ng/kg	93		70-164		
123678-HxCDD	5.00	U	5.00	0.0353	ng/kg	89		76-134		
123789-HxCDD	5.00	U	5.00	0.0369	ng/kg	91		64-162		
1234678-HpCDD	0.0895	J	5.00	0.0465	ng/kg	88		70-140		
OCDD	0.182	J	10.0	0.0350	ng/kg	92		78-144		
2378-TCDF	1.00	U	1.00	0.0676	ng/kg	98		75-158		
12378-PeCDF	0.0521	J	5.00	0.0360	ng/kg	95		80-134		
23478-PeCDF	5.00	U	5.00	0.0364	ng/kg	95		68-160		
123478-HxCDF	5.00	U	5.00	0.0352	ng/kg	94		72-134		
123678-HxCDF	5.00	U	5.00	0.0304	ng/kg	94		84-130		
123789-HxCDF	5.00	U	5.00	0.0336	ng/kg	90		78-130		
234678-HxCDF	5.00	U	5.00	0.0312	ng/kg	95		70-156		
1234678-HpCDF	0.0247	J	5.00	0.0138	ng/kg	89		82-122		
1234789-HpCDF	5.00	U	5.00	0.0244	ng/kg	91		78-138		
OCDF	0.137	J	10.0	0.0872	ng/kg	91		63-170		
Batch number: 14136003	Sample number(s): 7465088-7465089									
TEQ WHO 2005 - EDLx0.0	0.0940				pg/l					
Batch number: 14140004	Sample number(s): 7465091-7465098									
TEQ WHO 2005 - EDLx0.0	0.0000550				ng/kg					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474671
Reported: 06/09/14 at 12:57 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14140SLA026	Sample number(s): 7465091-7465098 UNSPK: P461254								
Acenaphthene	98	92	48-127	7	30				
Acenaphthylene	103	95	60-128	8	30				
Anthracene	97	93	52-126	4	30				
Benzo(a)anthracene	98	100	44-143	2	30				
Benzo(a)pyrene	84	82	49-137	2	30				
Benzo(b)fluoranthene	96	96	26-142	0	30				
Benzo(e)pyrene	78	73	63-111	6	30				
Benzo(g,h,i)perylene	48	42	33-141	12	30				
Benzo(k)fluoranthene	91	85	49-144	6	30				
Butylbenzylphthalate	112	108	64-156	4	30				
Di-n-butylphthalate	114	107	52-147	7	30				
Chrysene	91	89	43-141	2	30				
Dibenz(a,h)anthracene	66	58	25-145	13	30				
Diethylphthalate	102	92	66-140	10	30				
Dimethylphthalate	100	91	70-123	10	30				
Bis(2-Ethylhexyl)phthalate	99	94	48-164	4	30				
Fluoranthene	93	93	38-153	0	30				
Fluorene	94	89	57-130	6	30				
Indeno(1,2,3-cd)pyrene	69	52	26-139	26	30				
1-Methylnaphthalene	94	85	59-139	9	30				
2-Methylnaphthalene	96	89	46-147	7	30				
Naphthalene	94	88	52-136	6	30				
N-Nitrosodimethylamine	85	82	39-134	4	30				
Di-n-octylphthalate	134	128	52-162	5	30				
Phenanthrene	102	95	50-137	6	30				
Pyrene	86	91	26-143	4	30				
Batch number: 14141A16A	Sample number(s): 7465092-7465093,7465098 UNSPK: P470316								
11a TPH by EPA 8015B GRO	80	87	69-123	15	30				
Batch number: 141360001A	Sample number(s): 7465094-7465096 UNSPK: P457971								
6a Perchlorate (Method 6850)	108	111	80-120	3	20				
Batch number: 141390018A	Sample number(s): 7465088-7465089 UNSPK: P462597								
6b Perchlorate (Method 6850)	98	100	80-120	2	20				
Batch number: 141360028A	Sample number(s): 7465091-7465098 UNSPK: P461254								
PCB-1016	91	92	41-135	3	50				
PCB-1260	107	110	40-134	3	50				
Batch number: 141410016A	Sample number(s): 7465091-7465093,7465097-7465098 UNSPK: P470316								
EFH (C12-C14)	108	96	49-123	12	20				
EFH (C15-C20)	112	99	49-123	12	20				
EFH (C21-C30)	115	98	49-123	16	20				
EFH (C30-C40)	114	75	49-123	42*	20				
EFH (C8-C11)	90	88	49-123	2	20				
Batch number: 141410017A	Sample number(s): 7465091-7465093,7465097-7465098 UNSPK: P470316								
EFH C12-C14 w/ SiGel	72	70	49-123	3	20				
EFH C15-C20 w/ SiGel	74	71	49-123	4	20				

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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474671
Reported: 06/09/14 at 12:57 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
EFH C21-C30 w/ SiGel	73	71	49-123	3	20				
EFH C30-C40 w/ SiGel	62	58	49-123	7	20				
EFH C8-C11 w/ SiGel	60	64	49-123	5	20				
Batch number: 141360637001	Sample number(s): 7465091-7465098 UNSPK: P466734 BKG: P466734								
Aluminum	3551 (2)	3346 (2)	75-125	2	20	12,800	12,700	1	20
Antimony	75	76	75-125	1	20	3.96 U	3.96 U	0 (1)	20
Arsenic	110	100	75-125	7	20	3.41 J	3.62 J	6 (1)	20
Barium	101	98	75-125	2	20	63.0	61.6	2	20
Beryllium	103	101	75-125	1	20	0.576 J	0.591 J	3 (1)	20
Boron	97	96	75-125	2	20	9.90 U	0.899 J	200* (1)	20
Cadmium	89	90	75-125	0	20	0.990 U	0.990 U	0 (1)	20
Calcium	258 (2)	93 (2)	75-125	11	20	5,020	4,630	8	20
Chromium	110	111	75-125	0	20	15.0	14.8	1 (1)	20
Cobalt	96	96	75-125	0	20	6.40	6.62	3	20
Copper	117	107	75-125	6	20	12.9	12.0	7	20
Iron	1787 (2)	324 (2)	75-125	6	20	22,400	22,300	0	20
Lead	91	86	75-125	3	20	11.5	11.2	3 (1)	20
Lithium	103	102	75-125	1	20	13.2	12.5	6 (1)	20
Magnesium	495 (2)	473 (2)	75-125	1	20	4,140	4,030	3	20
Manganese	129 (2)	144 (2)	75-125	3	20	223	219	2	20
Molybdenum	95	94	75-125	0	20	1.27 J	0.750 J	51* (1)	20
Nickel	96	96	75-125	1	20	7.42	7.46	0 (1)	20
Phosphorus	45 (2)	58 (2)	75-125	3	20	421	331	24*	20
Potassium	133*	128*	75-125	1	20	2,130	2,110	1	20
Sodium	99	99	75-125	0	20	218	206	6 (1)	20
Tin	89	89	75-125	0	20	2.79 J	2.75 J	1 (1)	20
Titanium	336 (2)	350 (2)	75-125	1	20	810	798	1	20
Vanadium	113	108	75-125	3	20	37.7	35.4	6	20
Zinc	105	100	75-125	3	20	48.7	47.4	3	20
Zirconium	100	99	75-125	0	20	3.33 J	3.61 J	8 (1)	20
Batch number: 141360637001A	Sample number(s): 7465091-7465098 UNSPK: P466734 BKG: P466734								
Silver	113	109	75-125	3	20	0.0305 J	0.0307 J	1 (1)	20
Strontium	150*	164*	75-125	3	20	26.5	25.6	4	20
Thallium	133*	117	75-125	9	20	0.209	0.226	8 (1)	20
Batch number: 141360637001B	Sample number(s): 7465091-7465098 UNSPK: P466734 BKG: P466734								
Selenium	96	105	75-125	8	20	0.117 J	0.396 U	200* (1)	20
Batch number: 141360638001	Sample number(s): 7465091-7465098 UNSPK: P466734 BKG: P466734								
3a Mercury 7471A	143*	97	65-135	25*	20	0.101	0.134	27*	20
Batch number: 14135039401A	Sample number(s): 7465091-7465098 BKG: 7465098								
15a pH by 9045D						8.01	7.98	0	3
Batch number: 14136002101A	Sample number(s): 7465088-7465089 BKG: P461879								
28b pH (9040B and 9040C)						6.7	6.8	2	3
Batch number: 14141162401A	Sample number(s): 7465091-7465098 BKG: 7465096								

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474671
Reported: 06/09/14 at 12:57 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
14a Moisture Content by 160.3						6.2	6.3	2	20
Batch number: 14140004	Sample number(s): 7465091-7465098 UNSPK: P464578								
2378-TCDD	88	89	40-135	0	20				
12378-PeCDD	91	89	40-135	3	20				
123478-HxCDD	95	95	40-135	1	20				
123678-HxCDD	93	92	40-135	1	20				
123789-HxCDD	94	91	40-135	4	20				
1234678-HpCDD	174*	150*	40-135	13	20				
OCDD	711*	460*	40-135	33*	20				
2378-TCDF	93	90	40-135	4	20				
12378-PeCDF	93	92	40-135	2	20				
23478-PeCDF	94	93	40-135	1	20				
123478-HxCDF	95	93	40-135	3	20				
123678-HxCDF	92	92	40-135	1	20				
123789-HxCDF	90	92	40-135	1	20				
234678-HxCDF	95	96	40-135	1	20				
1234678-HpCDF	99	98	40-135	1	20				
1234789-HpCDF	90	92	40-135	2	20				
OCDF	103	97	40-135	7	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14140SLA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7465091	89	103	82
7465092	85	97	81
7465093	89	100	82
7465094	86	107	81
7465095	91	104	82
7465096	90	108	86
7465097	86	99	82
7465098	81	99	80
Blank	91	104	83
LCS	93	109	85
MS	87	98	84
MSD	85	90	79
Limits:	59-115	61-118	70-127

Analysis Name: 7b SVOC SIM EPA 8270D
Batch number: 14140WAB026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474671
Reported: 06/09/14 at 12:57 PM

Surrogate Quality Control

		d10
7465088	98	91	84
7465089	112	128	101
Blank	109	129	97
LCS	105	112	97
LCSD	106	119	98
Limits:	59-128	62-141	70-134

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 14141A16A

	Trifluorotoluene-F
7465092	82
7465093	78
7465098	86
Blank	99
LCS	100
MS	87
MSD	95
Limits:	50-142

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14142A94A

	Trifluorotoluene-F
7465089	88
7465090	85
Blank	86
LCS	97
LCSD	94
Limits:	63-135

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141360028A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7465091	104	110
7465092	101	110
7465093	99	104
7465094	66	62
7465095	87	85
7465096	106	107
7465097	100	108
7465098	101	103
Blank	102	107
LCS	107	106
LCSD	103	108
MS	98	104
MSD	99	107
Limits:	45-120	45-120

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474671
Reported: 06/09/14 at 12:57 PM

Surrogate Quality Control

Analysis Name: 21b PCBs and PCTs 8082A
Batch number: 141400007A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7465088	89	58
7465089	86	54
Blank	98	98
LCS	100	79
LCSD	96	77
Limits:	45-120	45-120

Analysis Name: 10b TPH by EPA 8015B (DRO)
Batch number: 141390014A

	Chlorobenzene	Orthoterphenyl
7465088	85	84
7465089	75	86
Blank	66	80
LCS	86	80
LCSD	65	78
Limits:	45-126	69-119

Analysis Name: 10b TPH-DRO (w/Si Gel)
Batch number: 141390015A

	Chlorobenzene	Orthoterphenyl
7465088	73	76
7465089	68	71
Blank	64	71
LCS	67	72
LCSD	62	68*
Limits:	45-126	69-119

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141410016A

	Chlorobenzene	Orthoterphenyl
7465091	80	87
7465092	94	106
7465093	88	101
7465097	88	102
7465098	91	105
Blank	94	106
LCS	96	116
MS	94	106
MSD	86	94
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141410017A

	Chlorobenzene	Orthoterphenyl

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474671
Reported: 06/09/14 at 12:57 PM

Surrogate Quality Control

7465091	68	73
7465092	63	71
7465093	70	80
7465097	70	76
7465098	58	64*
Blank	76	83
LCS	62	72
MS	65	72
MSD	66	72
Limits:	37-125	66-123

Analysis Name: 17b Dioxin/Furan by EPA 1613B
Batch number: 14136003

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7465088	80	85	88	88	87	91
7465089	80	84	84	86	85	86
Blank	86	89	92	94	92	103
OPR	83	91	94	92	92	96
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7465088	84	89	92	93	93	94
7465089	83	84	97	90	89	91
Blank	91	90	96	94	97	98
OPR	100	85	95	96	93	93
Limits:	17-157	24-169	24-185	21-178	26-152	26-123

	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF
7465088	94	97	93	95	90
7465089	91	107	92	89	85
Blank	98	101	100	106	96
OPR	95	107	98	100	100
Limits:	28-136	29-147	28-143	26-138	17-157

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 14140004

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7465091	74	71	76	76	78	77
7465092	72	75	77	76	76	79
7465093	72	73	74	73	75	75
7465094	84	83	87	86	88	91
7465095	83	84	89	85	88	88
7465096	72	74	79	79	78	80
7465097	80	77	85	84	84	82
7465098	73	70	77	76	77	73
Blank	70	74	81	81	80	78
MS	84	87	88	84	87	89
MSD	82	90	85	82	86	88

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474671
Reported: 06/09/14 at 12:57 PM

Surrogate Quality Control

OPR	68	73	77	76	77	77
Limits:	25-164	25-181	32-141	28-130	28-130	23-140
	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7465091	69	66	69	63	63	68
7465092	69	64	70	63	65	70
7465093	63	63	67	61	61	66
7465094	85	77	76	73	75	74
7465095	80	78	75	75	78	77
7465096	67	64	69	62	64	71
7465097	76	69	75	64	65	74
7465098	68	63	67	58	63	70
Blank	67	60	68	62	63	71
MS	83	77	81	77	74	76
MSD	84	73	77	75	74	72
OPR	68	59	68	62	63	68
Limits:	17-157	24-169	24-185	21-178	26-152	26-123
	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	
7465091	66	72	80	59	51	
7465092	66	68	86	57	48	
7465093	64	80	79	56	47	
7465094	76	91	80	79	70	
7465095	78	80	81	72	61	
7465096	65	71	89	57	43	
7465097	68	69	93	57	46	
7465098	65	63	85	50	42	
Blank	68	74	89	55	45	
MS	77	100	83	78	67	
MSD	73	91	77	76	69	
OPR	65	71	86	56	47	
Limits:	28-136	29-147	28-143	26-138	17-157	

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acct#13013 Cap#1474671 Sample#7465088-101

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/14/2014
CarrierName: FedEx
AirbillNo: 798863489721

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140514-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc. Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
EB1-051414	5/14/14 15:00	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	X		X																															For all EFH, silica gel
EB1-051414	5/14/14 15:00	WQ	None	2 - 250 mL Amber	10 day							X			X																								cleanup required on 1/2
EB1-051414	5/14/14 15:00	WQ	None	2 - 1 L Amber	10 day									X																									the extract. Analyze both
EB1-051414	5/14/14 15:00	WQ	None	1 - 40 mL Vial	10 day												X																						extracts for EFH.
EB1-051414	5/14/14 15:00	WQ	None	1 - 250 mL Poly	10 day														X																				
EB1-051414	5/14/14 15:00	WQ	HCl	2 - 1 L Amber	10 day																					X												
EB2-051414	5/14/14 15:30	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	X		X																														
EB2-051414	5/14/14 15:30	WQ	None	2 - 250 mL Amber	10 day							X			X																							
EB2-051414	5/14/14 15:30	WQ	None	2 - 1 L Amber	10 day									X																								
EB2-051414	5/14/14 15:30	WQ	None	1 - 40 mL Vial	10 day												X																					
EB2-051414	5/14/14 15:30	WQ	None	1 - 250 mL Poly	10 day														X																			
EB2-051414	5/14/14 15:30	WQ	HCl	2 - 1 L Amber	10 day																					X												
EB2-051414	5/14/14 15:30	WQ	HCl	3 - 40 mL Vial	10 day																				X													

Special Instructions:

Sampler: Pat Hart

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Shay Mypel	05/14/14	1600									
										5/15/14	1000

Final Data Gap

acct# 13013 Gp# 1474671 Sample# 7465088-101

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/14/2014
CarrierName: FedEx
AirbillNo: 798863489927

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140514-02
Cooler #: 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Methyl Mercury 1630	Organotin	Calc Nitrate+Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
TB1-051414	5/14/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																			X																
FDG-SL-841-SA5B-SB-0.0-0.5	5/14/14 09:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X														For all EFH, silica gel
FDG-SL-841-SA5B-SB-0.0-0.5	5/14/14 09:00	SO	None	1 - 4 oz glass	10 day													X																				cleanup required on 1/2
FDG-SL-841-SA5B-SB-4.0-5.0	5/14/14 09:25	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X								X													the extract. Analyze both
FDG-SL-841-SA5B-SB-4.0-5.0	5/14/14 09:25	SO	None	2 - Encore	10 day																			X															extracts for EFH.
FDG-SL-841-SA5B-SB-9.0-10.0	5/14/14 09:35	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X								X													
FDG-SL-841-SA5B-SB-9.0-10.0	5/14/14 09:35	SO	None	2 - Encore	10 day																			X															
FDG-SL-757-SA5C-SB-0.0-0.5	5/14/14 11:35	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X		X																						
FDG-SL-757-SA5C-SB-0.0-0.5	5/14/14 11:35	SO	None	1 - 4 oz glass	10 day													X																					
FDG-SL-757-SA5C-SB-4.0-5.0	5/14/14 11:50	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X		X	X																					
FDG-SL-757-SA5C-SB-8.0-9.0	5/14/14 12:00	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X		X	X																					
FDG-SL-842-SA5B-SB-0.0-0.5	5/14/14 13:55	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X													
FDG-SL-842-SA5B-SB-0.0-0.5	5/14/14 13:55	SO	None	1 - 4 oz glass	10 day													X																					
FDG-SL-842-SA5B-SB-4.0-5.0	5/14/14 14:25	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X								X													
FDG-SL-842-SA5B-SB-4.0-5.0	5/14/14 14:25	SO	None	2 - Encore	10 day																			X															

Special Instructions:

Sampler: Whitney Treadway

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Stephanie Lopez	05/14/14	1600									
										5/15/14	1000

COC Rev 3

Final Data Gap

1 of 1

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 14574

Group Number(s): 1474671

Client: CDM Smith

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/15/2014 10:00
Number of Packages:	2	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	N/A		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Joseph Gruber (5200) at 12:12 on 05/15/2014

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT146	4.1	DT	Wet	Y	Bagged	N	N
2	DT146	0.8	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

May 29, 2014

Project: SSFL Phase 3 Sampling

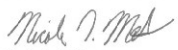
Submittal Date: 05/16/2014
Group Number: 1474888
SDG: PH178
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB-051514 Water	7466271
SVL-534-SA5B-SB-3.0-3.5 Soil	7466272
SVL-538-SA5B-SB-1.5-2.0 Soil	7466273
SVL-566-SA5B-SB-2.0-2.5 Soil	7466274
EB2-051514 Water	7466275

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,



Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: TB-051514 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7466271
LL Group # 1474888
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/15/2014 08:00

Submitted: 05/16/2014 10:10
Reported: 05/29/2014 14:13

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB-15 SDG#: PH178-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	5	U	5	0.5	1
10335	Benzene	71-43-2	5	U	5	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	5	U	5	0.5	1
10335	Bromoform	75-25-2	5	U	5	0.5	1
10335	Bromomethane	74-83-9	5	U	5	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	5	U	5	0.5	1
10335	Chlorobenzene	108-90-7	5	U	5	0.5	1
10335	Chloroethane	75-00-3	5	U	5	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	5	U	5	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	5	U	5	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	5	U	5	0.5	1
10335	1,2-Dibromoethane	106-93-4	5	U	5	0.5	1
10335	Dibromomethane	74-95-3	5	U	5	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	5	U	5	0.5	1
10335	1,1-Dichloroethane	75-34-3	5	U	5	0.5	1
10335	1,2-Dichloroethane	107-06-2	5	U	5	0.5	1
10335	1,1-Dichloroethene	75-35-4	5	U	5	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.5	1
10335	1,2-Dichloropropane	78-87-5	5	U	5	0.5	1
10335	1,3-Dichloropropane	142-28-9	5	U	5	0.5	1
10335	2,2-Dichloropropane	594-20-7	5	U	5	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.5	1
10335	Ethyl t-butyl ether	637-92-3	5	U	5	0.5	1
10335	Ethylbenzene	100-41-4	5	U	5	0.5	1
10335	Freon 113	76-13-1	5	U	5	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: TB-051514 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7466271
LL Group # 1474888
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/15/2014 08:00

Submitted: 05/16/2014 10:10
Reported: 05/29/2014 14:13

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB-15 SDG#: PH178-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	5	U	5	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	5	U	5	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	5	U	5	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.5	1
10335	Tetrachloroethene	127-18-4	5	U	5	0.5	1
10335	Toluene	108-88-3	5	U	5	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	5	U	5	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	5	U	5	0.5	1
10335	Trichloroethene	79-01-6	5	U	5	0.5	1
10335	Trichlorofluoromethane	75-69-4	5	U	5	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	5	U	5	0.5	1
10335	m+p-Xylene	179601-23-1	5	U	5	0.5	1
10335	o-Xylene	95-47-6	5	U	5	0.5	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: chlorotrifluoroethene.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141392AA	05/20/2014 00:02	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141392AA	05/20/2014 00:02	Kevin A Sposito	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-534-SA5B-SB-3.0-3.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7466272
LL Group # 1474888
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/15/2014 08:10 by RE

Submitted: 05/16/2014 10:10
Reported: 05/29/2014 14:13

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-534- SDG#: PH178-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	19	U	19	7	0.89
10237	Acrolein	107-02-8	95	U	95	19	0.89
10237	Acrylonitrile	107-13-1	19	U	19	4	0.89
10237	t-Amyl methyl ether	994-05-8	5	U	5	0.9	0.89
10237	Benzene	71-43-2	5	U	5	0.5	0.89
10237	Bromobenzene	108-86-1	5	U	5	0.9	0.89
10237	Bromochloromethane	74-97-5	5	U	5	0.9	0.89
10237	Bromodichloromethane	75-27-4	5	U	5	0.9	0.89
10237	Bromoform	75-25-2	5	U	5	0.9	0.89
10237	Bromomethane	74-83-9	5	U	5	2	0.89
10237	2-Butanone	78-93-3	9	U	9	4	0.89
10237	t-Butyl alcohol	75-65-0	47	U	47	19	0.89
10237	n-Butylbenzene	104-51-8	5	U	5	0.9	0.89
10237	sec-Butylbenzene	135-98-8	5	U	5	0.9	0.89
10237	tert-Butylbenzene	98-06-6	5	U	5	0.9	0.89
10237	Carbon Disulfide	75-15-0	5	U	5	0.9	0.89
10237	Carbon Tetrachloride	56-23-5	5	U	5	0.9	0.89
10237	Chlorobenzene	108-90-7	5	U	5	0.9	0.89
10237	Chloroethane	75-00-3	5	U	5	2	0.89
10237	2-Chloroethyl Vinyl Ether	110-75-8	9	U	9	2	0.89
10237	Chloroform	67-66-3	5	U	5	0.9	0.89
10237	1-Chlorohexane	544-10-5	5	U	5	0.9	0.89
10237	Chloromethane	74-87-3	5	U	5	2	0.89
10237	2-Chlorotoluene	95-49-8	5	U	5	0.9	0.89
10237	4-Chlorotoluene	106-43-4	5	U	5	0.9	0.89
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.89
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.89
10237	Dibromochloromethane	124-48-1	5	U	5	0.9	0.89
10237	1,2-Dibromoethane	106-93-4	5	U	5	0.9	0.89
10237	Dibromomethane	74-95-3	5	U	5	0.9	0.89
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	0.9	0.89
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	0.9	0.89
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	0.9	0.89
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.89
10237	1,1-Dichloroethane	75-34-3	5	U	5	0.9	0.89
10237	1,2-Dichloroethane	107-06-2	5	U	5	0.9	0.89
10237	1,1-Dichloroethene	75-35-4	5	U	5	0.9	0.89
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.9	0.89
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.9	0.89
10237	1,2-Dichloropropane	78-87-5	5	U	5	0.9	0.89
10237	1,3-Dichloropropane	142-28-9	5	U	5	0.9	0.89
10237	2,2-Dichloropropane	594-20-7	5	U	5	0.9	0.89
10237	1,1-Dichloropropene	563-58-6	5	U	5	0.9	0.89
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.9	0.89
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.9	0.89
10237	Ethyl t-butyl ether	637-92-3	5	U	5	0.9	0.89
10237	Ethylbenzene	100-41-4	5	U	5	0.9	0.89
10237	Freon 113	76-13-1	5	U	5	2	0.89
10237	Freon 133a	75-88-7	5	U	5	2	0.89
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.89
10237	2-Hexanone	591-78-6	9	U	9	3	0.89

*=This limit was used in the evaluation of the final result

Sample Description: SVL-534-SA5B-SB-3.0-3.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7466272
LL Group # 1474888
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/15/2014 08:10 by RE

Submitted: 05/16/2014 10:10
Reported: 05/29/2014 14:13

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-534- SDG#: PH178-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	di-Isopropyl ether	108-20-3	5	U	5	0.9	0.89
10237	Isopropylbenzene	98-82-8	5	U	5	0.9	0.89
10237	p-Isopropyltoluene	99-87-6	5	U	5	0.9	0.89
10237	Methyl Iodide	74-88-4	5	U	5	3	0.89
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.89
10237	4-Methyl-2-pentanone	108-10-1	9	U	9	3	0.89
10237	Methylene Chloride	75-09-2	5	U	5	2	0.89
10237	n-Propylbenzene	103-65-1	5	U	5	0.9	0.89
10237	Styrene	100-42-5	5	U	5	0.9	0.89
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.9	0.89
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.9	0.89
10237	Tetrachloroethene	127-18-4	5	U	5	0.9	0.89
10237	Toluene	108-88-3	5	U	5	0.9	0.89
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	0.9	0.89
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	0.9	0.89
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	0.9	0.89
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	0.9	0.89
10237	Trichloroethene	79-01-6	5	U	5	0.9	0.89
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.89
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	0.9	0.89
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	0.9	0.89
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	0.9	0.89
10237	Vinyl Acetate	108-05-4	9	U	9	2	0.89
10237	Vinyl Chloride	75-01-4	5	U	5	0.9	0.89
10237	m+p-Xylene	179601-23-1	5	U	5	0.9	0.89
10237	o-Xylene	95-47-6	5	U	5	0.9	0.89
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	6.4		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141491AA	05/29/2014 05:13	Stephanie A Selis	0.89
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201413634514	05/16/2014 15:48	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-534-SA5B-SB-3.0-3.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7466272
LL Group # 1474888
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/15/2014 08:10 by RE

Submitted: 05/16/2014 10:10
Reported: 05/29/2014 14:13

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-534- SDG#: PH178-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201413634514	05/16/2014 15:48	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201413634514	05/16/2014 15:44	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14141162401B	05/21/2014 19:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-538-SA5B-SB-1.5-2.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7466273
LL Group # 1474888
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/15/2014 08:45 by RE

Submitted: 05/16/2014 10:10
Reported: 05/29/2014 14:13

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-538- SDG#: PH178-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	18	U	18	6	0.82
10237	Acrolein	107-02-8	90	U	90	18	0.82
10237	Acrylonitrile	107-13-1	18	U	18	4	0.82
10237	t-Amyl methyl ether	994-05-8	4	U	4	0.9	0.82
10237	Benzene	71-43-2	4	U	4	0.4	0.82
10237	Bromobenzene	108-86-1	4	U	4	0.9	0.82
10237	Bromochloromethane	74-97-5	4	U	4	0.9	0.82
10237	Bromodichloromethane	75-27-4	4	U	4	0.9	0.82
10237	Bromoform	75-25-2	4	U	4	0.9	0.82
10237	Bromomethane	74-83-9	4	U	4	2	0.82
10237	2-Butanone	78-93-3	9	U	9	4	0.82
10237	t-Butyl alcohol	75-65-0	45	U	45	18	0.82
10237	n-Butylbenzene	104-51-8	4	U	4	0.9	0.82
10237	sec-Butylbenzene	135-98-8	4	U	4	0.9	0.82
10237	tert-Butylbenzene	98-06-6	4	U	4	0.9	0.82
10237	Carbon Disulfide	75-15-0	4	U	4	0.9	0.82
10237	Carbon Tetrachloride	56-23-5	4	U	4	0.9	0.82
10237	Chlorobenzene	108-90-7	4	U	4	0.9	0.82
10237	Chloroethane	75-00-3	4	U	4	2	0.82
10237	2-Chloroethyl Vinyl Ether	110-75-8	9	U	9	2	0.82
10237	Chloroform	67-66-3	4	U	4	0.9	0.82
10237	1-Chlorohexane	544-10-5	4	U	4	0.9	0.82
10237	Chloromethane	74-87-3	4	U	4	2	0.82
10237	2-Chlorotoluene	95-49-8	4	U	4	0.9	0.82
10237	4-Chlorotoluene	106-43-4	4	U	4	0.9	0.82
10237	Chlorotrifluoroethene	79-38-9	4	U	4	2	0.82
10237	1,2-Dibromo-3-chloropropane	96-12-8	4	U	4	2	0.82
10237	Dibromochloromethane	124-48-1	4	U	4	0.9	0.82
10237	1,2-Dibromoethane	106-93-4	4	U	4	0.9	0.82
10237	Dibromomethane	74-95-3	4	U	4	0.9	0.82
10237	1,2-Dichlorobenzene	95-50-1	4	U	4	0.9	0.82
10237	1,3-Dichlorobenzene	541-73-1	4	U	4	0.9	0.82
10237	1,4-Dichlorobenzene	106-46-7	4	U	4	0.9	0.82
10237	Dichlorodifluoromethane	75-71-8	4	U	4	2	0.82
10237	1,1-Dichloroethane	75-34-3	4	U	4	0.9	0.82
10237	1,2-Dichloroethane	107-06-2	4	U	4	0.9	0.82
10237	1,1-Dichloroethene	75-35-4	4	U	4	0.9	0.82
10237	cis-1,2-Dichloroethene	156-59-2	4	U	4	0.9	0.82
10237	trans-1,2-Dichloroethene	156-60-5	4	U	4	0.9	0.82
10237	1,2-Dichloropropane	78-87-5	4	U	4	0.9	0.82
10237	1,3-Dichloropropane	142-28-9	4	U	4	0.9	0.82
10237	2,2-Dichloropropane	594-20-7	4	U	4	0.9	0.82
10237	1,1-Dichloropropene	563-58-6	4	U	4	0.9	0.82
10237	cis-1,3-Dichloropropene	10061-01-5	4	U	4	0.9	0.82
10237	trans-1,3-Dichloropropene	10061-02-6	4	U	4	0.9	0.82
10237	Ethyl t-butyl ether	637-92-3	4	U	4	0.9	0.82
10237	Ethylbenzene	100-41-4	4	U	4	0.9	0.82
10237	Freon 113	76-13-1	4	U	4	2	0.82
10237	Freon 133a	75-88-7	4	U	4	2	0.82
10237	Hexachlorobutadiene	87-68-3	4	U	4	2	0.82
10237	2-Hexanone	591-78-6	9	U	9	3	0.82

*=This limit was used in the evaluation of the final result

Sample Description: SVL-538-SA5B-SB-1.5-2.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7466273
LL Group # 1474888
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/15/2014 08:45 by RE

Submitted: 05/16/2014 10:10
Reported: 05/29/2014 14:13

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-538- SDG#: PH178-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	4	U	4	0.9	0.82
10237	Isopropylbenzene	98-82-8	4	U	4	0.9	0.82
10237	p-Isopropyltoluene	99-87-6	4	U	4	0.9	0.82
10237	Methyl Iodide	74-88-4	4	U	4	3	0.82
10237	Methyl Tertiary Butyl Ether	1634-04-4	4	U	4	0.4	0.82
10237	4-Methyl-2-pentanone	108-10-1	9	U	9	3	0.82
10237	Methylene Chloride	75-09-2	4	U	4	2	0.82
10237	n-Propylbenzene	103-65-1	4	U	4	0.9	0.82
10237	Styrene	100-42-5	4	U	4	0.9	0.82
10237	1,1,1,2-Tetrachloroethane	630-20-6	4	U	4	0.9	0.82
10237	1,1,2,2-Tetrachloroethane	79-34-5	4	U	4	0.9	0.82
10237	Tetrachloroethene	127-18-4	4	U	4	0.9	0.82
10237	Toluene	108-88-3	4	U	4	0.9	0.82
10237	1,2,3-Trichlorobenzene	87-61-6	4	U	4	0.9	0.82
10237	1,2,4-Trichlorobenzene	120-82-1	4	U	4	0.9	0.82
10237	1,1,1-Trichloroethane	71-55-6	4	U	4	0.9	0.82
10237	1,1,2-Trichloroethane	79-00-5	4	U	4	0.9	0.82
10237	Trichloroethene	79-01-6	4	U	4	0.9	0.82
10237	Trichlorofluoromethane	75-69-4	4	U	4	2	0.82
10237	1,2,3-Trichloropropane	96-18-4	4	U	4	0.9	0.82
10237	1,2,4-Trimethylbenzene	95-63-6	4	U	4	0.9	0.82
10237	1,3,5-Trimethylbenzene	108-67-8	4	U	4	0.9	0.82
10237	Vinyl Acetate	108-05-4	9	U	9	2	0.82
10237	Vinyl Chloride	75-01-4	4	U	4	0.9	0.82
10237	m+p-Xylene	179601-23-1	4	U	4	0.9	0.82
10237	o-Xylene	95-47-6	4	U	4	0.9	0.82
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3	n.a.	8.6		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141491AA	05/29/2014 05:35	Stephanie A Selis	0.82
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201413634514	05/16/2014 15:48	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-538-SA5B-SB-1.5-2.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7466273
LL Group # 1474888
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/15/2014 08:45 by RE

Submitted: 05/16/2014 10:10
Reported: 05/29/2014 14:13

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-538- SDG#: PH178-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201413634514	05/16/2014 15:48	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201413634514	05/16/2014 15:42	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14141162401B	05/21/2014 19:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-566-SA5B-SB-2.0-2.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7466274
LL Group # 1474888
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/15/2014 14:58 by RE

Submitted: 05/16/2014 10:10
Reported: 05/29/2014 14:13

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-566- SDG#: PH178-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	19	U	19	7	0.93
10237	Acrolein	107-02-8	95	U	95	19	0.93
10237	Acrylonitrile	107-13-1	19	U	19	4	0.93
10237	t-Amyl methyl ether	994-05-8	5	U	5	0.9	0.93
10237	Benzene	71-43-2	5	U	5	0.5	0.93
10237	Bromobenzene	108-86-1	5	U	5	0.9	0.93
10237	Bromochloromethane	74-97-5	5	U	5	0.9	0.93
10237	Bromodichloromethane	75-27-4	5	U	5	0.9	0.93
10237	Bromoform	75-25-2	5	U	5	0.9	0.93
10237	Bromomethane	74-83-9	5	U	5	2	0.93
10237	2-Butanone	78-93-3	9	U	9	4	0.93
10237	t-Butyl alcohol	75-65-0	47	U	47	19	0.93
10237	n-Butylbenzene	104-51-8	5	U	5	0.9	0.93
10237	sec-Butylbenzene	135-98-8	5	U	5	0.9	0.93
10237	tert-Butylbenzene	98-06-6	5	U	5	0.9	0.93
10237	Carbon Disulfide	75-15-0	5	U	5	0.9	0.93
10237	Carbon Tetrachloride	56-23-5	5	U	5	0.9	0.93
10237	Chlorobenzene	108-90-7	5	U	5	0.9	0.93
10237	Chloroethane	75-00-3	5	U	5	2	0.93
10237	2-Chloroethyl Vinyl Ether	110-75-8	9	U	9	2	0.93
10237	Chloroform	67-66-3	5	U	5	0.9	0.93
10237	1-Chlorohexane	544-10-5	5	U	5	0.9	0.93
10237	Chloromethane	74-87-3	5	U	5	2	0.93
10237	2-Chlorotoluene	95-49-8	5	U	5	0.9	0.93
10237	4-Chlorotoluene	106-43-4	5	U	5	0.9	0.93
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.93
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.93
10237	Dibromochloromethane	124-48-1	5	U	5	0.9	0.93
10237	1,2-Dibromoethane	106-93-4	5	U	5	0.9	0.93
10237	Dibromomethane	74-95-3	5	U	5	0.9	0.93
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	0.9	0.93
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	0.9	0.93
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	0.9	0.93
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.93
10237	1,1-Dichloroethane	75-34-3	5	U	5	0.9	0.93
10237	1,2-Dichloroethane	107-06-2	5	U	5	0.9	0.93
10237	1,1-Dichloroethene	75-35-4	5	U	5	0.9	0.93
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.9	0.93
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.9	0.93
10237	1,2-Dichloropropane	78-87-5	5	U	5	0.9	0.93
10237	1,3-Dichloropropane	142-28-9	5	U	5	0.9	0.93
10237	2,2-Dichloropropane	594-20-7	5	U	5	0.9	0.93
10237	1,1-Dichloropropene	563-58-6	5	U	5	0.9	0.93
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.9	0.93
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.9	0.93
10237	Ethyl t-butyl ether	637-92-3	5	U	5	0.9	0.93
10237	Ethylbenzene	100-41-4	5	U	5	0.9	0.93
10237	Freon 113	76-13-1	5	U	5	2	0.93
10237	Freon 133a	75-88-7	5	U	5	2	0.93
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.93
10237	2-Hexanone	591-78-6	9	U	9	3	0.93

*=This limit was used in the evaluation of the final result

Sample Description: SVL-566-SA5B-SB-2.0-2.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7466274
LL Group # 1474888
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/15/2014 14:58 by RE

Submitted: 05/16/2014 10:10
Reported: 05/29/2014 14:13

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-566- SDG#: PH178-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	0.9	0.93
10237	Isopropylbenzene	98-82-8	5	U	5	0.9	0.93
10237	p-Isopropyltoluene	99-87-6	5	U	5	0.9	0.93
10237	Methyl Iodide	74-88-4	5	U	5	3	0.93
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.93
10237	4-Methyl-2-pentanone	108-10-1	9	U	9	3	0.93
10237	Methylene Chloride	75-09-2	5	U	5	2	0.93
10237	n-Propylbenzene	103-65-1	5	U	5	0.9	0.93
10237	Styrene	100-42-5	5	U	5	0.9	0.93
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.9	0.93
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.9	0.93
10237	Tetrachloroethene	127-18-4	5	U	5	0.9	0.93
10237	Toluene	108-88-3	5	U	5	0.9	0.93
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	0.9	0.93
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	0.9	0.93
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	0.9	0.93
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	0.9	0.93
10237	Trichloroethene	79-01-6	5	U	5	0.9	0.93
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.93
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	0.9	0.93
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	0.9	0.93
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	0.9	0.93
10237	Vinyl Acetate	108-05-4	9	U	9	2	0.93
10237	Vinyl Chloride	75-01-4	5	U	5	0.9	0.93
10237	m+p-Xylene	179601-23-1	5	U	5	0.9	0.93
10237	o-Xylene	95-47-6	5	U	5	0.9	0.93
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	2.5		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141491AA	05/29/2014 05:57	Stephanie A Selis	0.93
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201413634514	05/16/2014 15:48	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-566-SA5B-SB-2.0-2.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7466274
LL Group # 1474888
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/15/2014 14:58 by RE

Submitted: 05/16/2014 10:10
Reported: 05/29/2014 14:13

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-566- SDG#: PH178-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201413634514	05/16/2014 15:48	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201413634514	05/16/2014 15:46	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14141162401B	05/21/2014 19:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-051514 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7466275
LL Group # 1474888
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/15/2014 09:05 by RE

Submitted: 05/16/2014 10:10
Reported: 05/29/2014 14:13

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB152 SDG#: PH178-05EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	5	U	5	0.5	1
10335	Benzene	71-43-2	5	U	5	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	5	U	5	0.5	1
10335	Bromoform	75-25-2	5	U	5	0.5	1
10335	Bromomethane	74-83-9	5	U	5	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	5	U	5	0.5	1
10335	Chlorobenzene	108-90-7	5	U	5	0.5	1
10335	Chloroethane	75-00-3	5	U	5	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	5	U	5	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	5	U	5	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	5	U	5	0.5	1
10335	1,2-Dibromoethane	106-93-4	5	U	5	0.5	1
10335	Dibromomethane	74-95-3	5	U	5	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	5	U	5	0.5	1
10335	1,1-Dichloroethane	75-34-3	5	U	5	0.5	1
10335	1,2-Dichloroethane	107-06-2	5	U	5	0.5	1
10335	1,1-Dichloroethene	75-35-4	5	U	5	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.5	1
10335	1,2-Dichloropropane	78-87-5	5	U	5	0.5	1
10335	1,3-Dichloropropane	142-28-9	5	U	5	0.5	1
10335	2,2-Dichloropropane	594-20-7	5	U	5	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.5	1
10335	Ethyl t-butyl ether	637-92-3	5	U	5	0.5	1
10335	Ethylbenzene	100-41-4	5	U	5	0.5	1
10335	Freon 113	76-13-1	5	U	5	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-051514 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7466275
LL Group # 1474888
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/15/2014 09:05 by RE

Submitted: 05/16/2014 10:10
Reported: 05/29/2014 14:13

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB152 SDG#: PH178-05EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	5	U	5	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	5	U	5	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	5	U	5	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.5	1
10335	Tetrachloroethene	127-18-4	5	U	5	0.5	1
10335	Toluene	108-88-3	5	U	5	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	5	U	5	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	5	U	5	0.5	1
10335	Trichloroethene	79-01-6	5	U	5	0.5	1
10335	Trichlorofluoromethane	75-69-4	5	U	5	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	5	U	5	0.5	1
10335	m+p-Xylene	179601-23-1	5	U	5	0.5	1
10335	o-Xylene	95-47-6	5	U	5	0.5	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: chlorotrifluoroethene.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141392AA	05/20/2014 00:24	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141392AA	05/20/2014 00:24	Kevin A Sposito	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474888
Reported: 05/29/14 at 02:13 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B141491AA	Sample number(s): 7466272-7466274								
Acetone	20 U	20.	7	ug/kg	108	112	41-149	3	30
Acrolein	100 U	100.	20	ug/kg	92	88	50-137	5	30
Acrylonitrile	20 U	20.	4	ug/kg	91	88	58-123	3	30
t-Amyl methyl ether	5 U	5.	1	ug/kg	86	88	63-130	2	30
Benzene	5 U	5.	0.5	ug/kg	96	93	80-120	3	30
Bromobenzene	5 U	5.	1	ug/kg	96	99	78-120	3	30
Bromochloromethane	5 U	5.	1	ug/kg	120	117	75-129	2	30
Bromodichloromethane	5 U	5.	1	ug/kg	96	95	75-120	1	30
Bromoform	5 U	5.	1	ug/kg	102	96	70-126	6	30
Bromomethane	5 U	5.	2	ug/kg	109	108	32-162	1	30
2-Butanone	10 U	10.	4	ug/kg	98	99	47-136	1	30
t-Butyl alcohol	50 U	50.	20	ug/kg	93	99	66-133	6	30
n-Butylbenzene	5 U	5.	1	ug/kg	95	93	72-120	2	30
sec-Butylbenzene	5 U	5.	1	ug/kg	97	93	69-120	4	30
tert-Butylbenzene	5 U	5.	1	ug/kg	94	95	75-120	1	30
Carbon Disulfide	5 U	5.	1	ug/kg	73	71	63-128	3	30
Carbon Tetrachloride	5 U	5.	1	ug/kg	98	96	69-130	2	30
Chlorobenzene	5 U	5.	1	ug/kg	100	95	80-120	5	30
Chloroethane	5 U	5.	2	ug/kg	102	101	17-171	1	30
2-Chloroethyl Vinyl Ether	10 U	10.	2	ug/kg	87	90	52-134	3	30
Chloroform	5 U	5.	1	ug/kg	108	106	80-120	2	30
1-Chlorohexane	5 U	5.	1	ug/kg	91	85	70-130	6	30
Chloromethane	5 U	5.	2	ug/kg	89	85	56-120	4	30
2-Chlorotoluene	5 U	5.	1	ug/kg	93	93	78-120	0	30
4-Chlorotoluene	5 U	5.	1	ug/kg	94	96	79-120	2	30
Chlorotrifluoroethene	5 U	5.	2	ug/kg	95	89	22-131	6	30
1,2-Dibromo-3-chloropropane	5 U	5.	2	ug/kg	79	90	50-132	13	30
Dibromochloromethane	5 U	5.	1	ug/kg	99	95	77-120	4	30
1,2-Dibromoethane	5 U	5.	1	ug/kg	98	97	80-120	2	30
Dibromomethane	5 U	5.	1	ug/kg	101	99	75-120	2	30
1,2-Dichlorobenzene	5 U	5.	1	ug/kg	99	98	80-120	1	30
1,3-Dichlorobenzene	5 U	5.	1	ug/kg	93	98	80-120	5	30
1,4-Dichlorobenzene	5 U	5.	1	ug/kg	93	102	80-120	10	30
Dichlorodifluoromethane	5 U	5.	2	ug/kg	74	71	26-137	5	30
1,1-Dichloroethane	5 U	5.	1	ug/kg	99	96	71-122	2	30
1,2-Dichloroethane	5 U	5.	1	ug/kg	110	108	66-136	1	30
1,1-Dichloroethene	5 U	5.	1	ug/kg	103	100	73-129	3	30
cis-1,2-Dichloroethene	5 U	5.	1	ug/kg	104	100	80-120	4	30
trans-1,2-Dichloroethene	5 U	5.	1	ug/kg	106	103	79-120	3	30
1,2-Dichloropropane	5 U	5.	1	ug/kg	96	97	77-120	0	30
1,3-Dichloropropane	5 U	5.	1	ug/kg	93	92	73-120	1	30
2,2-Dichloropropane	5 U	5.	1	ug/kg	90	88	72-123	2	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474888
Reported: 05/29/14 at 02:13 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/kg	100	96	77-120	4	30
cis-1,3-Dichloropropene	5	U	5.	1	ug/kg	92	92	74-120	1	30
trans-1,3-Dichloropropene	5	U	5.	1	ug/kg	88	86	69-120	2	30
Ethyl t-butyl ether	5	U	5.	1	ug/kg	88	89	59-134	1	30
Ethylbenzene	5	U	5.	1	ug/kg	98	94	80-120	4	30
Freon 113	5	U	5.	2	ug/kg	74	71	64-137	3	30
Freon 133a	5	U	5.	2	ug/kg	118	113	78-120	3	30
Hexachlorobutadiene	5	U	5.	2	ug/kg	105	105	46-130	0	30
2-Hexanone	10	U	10.	3	ug/kg	86	85	40-129	0	30
di-Isopropyl ether	5	U	5.	1	ug/kg	92	92	68-128	0	30
Isopropylbenzene	5	U	5.	1	ug/kg	101	97	76-120	4	30
p-Isopropyltoluene	5	U	5.	1	ug/kg	89	88	69-120	2	30
Methyl Iodide	5	U	5.	3	ug/kg	102	99	72-130	3	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/kg	93	91	69-126	2	30
4-Methyl-2-pentanone	10	U	10.	3	ug/kg	91	92	43-133	1	30
Methylene Chloride	5	U	5.	2	ug/kg	104	103	80-124	1	30
n-Propylbenzene	5	U	5.	1	ug/kg	95	96	77-120	1	30
Styrene	5	U	5.	1	ug/kg	101	96	76-120	4	30
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/kg	98	95	80-120	3	30
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/kg	86	93	71-123	8	30
Tetrachloroethene	5	U	5.	1	ug/kg	106	103	78-120	3	30
Toluene	5	U	5.	1	ug/kg	94	89	80-120	5	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/kg	105	100	64-120	5	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/kg	97	99	68-120	3	30
1,1,1-Trichloroethane	5	U	5.	1	ug/kg	95	93	63-135	2	30
1,1,2-Trichloroethane	5	U	5.	1	ug/kg	98	100	80-120	1	30
Trichloroethene	5	U	5.	1	ug/kg	102	101	80-120	1	30
Trichlorofluoromethane	5	U	5.	2	ug/kg	91	86	58-133	5	30
1,2,3-Trichloropropane	5	U	5.	1	ug/kg	94	100	71-123	6	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/kg	95	93	79-120	2	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/kg	94	95	78-120	2	30
Vinyl Acetate	10	U	10.	2	ug/kg	74	70	40-127	6	30
Vinyl Chloride	5	U	5.	1	ug/kg	93	92	59-120	1	30
m+p-Xylene	5	U	5.	1	ug/kg	99	97	80-120	2	30
o-Xylene	5	U	5.	1	ug/kg	97	94	80-120	3	30
Batch number: Y141392AA	Sample number(s): 7466271,7466275									
Acetone	20	U	20.	6	ug/l	84	84	43-149	1	30
Acrolein	100 U		100.	40	ug/l	87	87	52-129	1	30
Acrylonitrile	20	U	20.	4	ug/l	85	88	62-120	4	30
t-Amyl methyl ether	5	U	5.	0.5	ug/l	103	104	75-120	1	30
Benzene	5	U	5.	0.5	ug/l	102	101	78-120	1	30
Bromobenzene	5	U	5.	1	ug/l	98	97	80-120	2	30
Bromochloromethane	5	U	5.	1	ug/l	89	89	80-121	0	30
Bromodichloromethane	5	U	5.	0.5	ug/l	92	92	73-120	0	30
Bromoform	5	U	5.	0.5	ug/l	83	82	61-120	1	30
Bromomethane	5	U	5.	0.5	ug/l	93	94	58-120	1	30
2-Butanone	10	U	10.	3	ug/l	91	92	54-133	1	30
t-Butyl alcohol	50	U	50.	5	ug/l	99	100	75-120	1	30
n-Butylbenzene	5	U	5.	1	ug/l	95	95	68-120	1	30
sec-Butylbenzene	5	U	5.	1	ug/l	98	97	80-120	0	30
tert-Butylbenzene	5	U	5.	1	ug/l	97	95	73-120	1	30
Carbon Disulfide	5	U	5.	1	ug/l	89	91	58-126	2	30
Carbon Tetrachloride	5	U	5.	0.5	ug/l	101	101	74-130	0	30
Chlorobenzene	5	U	5.	0.5	ug/l	100	100	80-120	0	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474888
Reported: 05/29/14 at 02:13 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroethane	5	U	5.	0.5	ug/l	83	83	56-120	0	30
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/l	98	99	54-126	1	30
Chloroform	5	U	5.	0.5	ug/l	100	100	80-122	0	30
1-Chlorohexane	5	U	5.	1	ug/l	105	104	80-120	0	30
Chloromethane	5	U	5.	0.5	ug/l	97	97	63-120	0	30
2-Chlorotoluene	5	U	5.	1	ug/l	98	98	80-120	1	30
4-Chlorotoluene	5	U	5.	1	ug/l	99	97	80-120	2	30
Chlorotrifluoroethene	5	U	5.	2	ug/l	42*	42*	47-120	0	30
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/l	93	94	56-120	2	30
Dibromochloromethane	5	U	5.	0.5	ug/l	93	94	72-120	1	30
1,2-Dibromoethane	5	U	5.	0.5	ug/l	101	100	76-120	1	30
Dibromomethane	5	U	5.	0.5	ug/l	96	97	80-120	1	30
1,2-Dichlorobenzene	5	U	5.	1	ug/l	99	98	80-120	1	30
1,3-Dichlorobenzene	5	U	5.	1	ug/l	99	98	80-120	2	30
1,4-Dichlorobenzene	5	U	5.	1	ug/l	100	97	80-120	2	30
Dichlorodifluoromethane	5	U	5.	0.5	ug/l	106	105	48-132	0	30
1,1-Dichloroethane	5	U	5.	0.5	ug/l	99	99	80-120	1	30
1,2-Dichloroethane	5	U	5.	0.5	ug/l	99	99	65-135	0	30
1,1-Dichloroethene	5	U	5.	0.5	ug/l	102	104	76-124	1	30
cis-1,2-Dichloroethene	5	U	5.	0.5	ug/l	101	101	80-120	0	30
trans-1,2-Dichloroethene	5	U	5.	0.5	ug/l	104	104	80-120	0	30
1,2-Dichloropropane	5	U	5.	0.5	ug/l	101	100	80-120	1	30
1,3-Dichloropropane	5	U	5.	0.5	ug/l	98	98	80-120	0	30
2,2-Dichloropropane	5	U	5.	0.5	ug/l	100	100	67-124	0	30
1,1-Dichloropropene	5	U	5.	1	ug/l	108	108	80-120	0	30
cis-1,3-Dichloropropene	5	U	5.	0.5	ug/l	96	95	80-120	0	30
trans-1,3-Dichloropropene	5	U	5.	0.5	ug/l	95	95	76-120	0	30
Ethyl t-butyl ether	5	U	5.	0.5	ug/l	102	103	74-120	1	30
Ethylbenzene	5	U	5.	0.5	ug/l	99	98	79-120	1	30
Freon 113	5	U	5.	2	ug/l	109	110	67-127	0	30
Freon 133a	5	U	5.	2	ug/l	85	87	46-152	2	30
Hexachlorobutadiene	5	U	5.	2	ug/l	86	84	51-125	2	30
2-Hexanone	10	U	10.	3	ug/l	92	92	44-126	0	30
di-Isopropyl ether	5	U	5.	0.5	ug/l	106	106	65-120	1	30
Isopropylbenzene	5	U	5.	1	ug/l	98	98	77-120	1	30
p-Isopropyltoluene	5	U	5.	1	ug/l	95	94	80-120	1	30
Methyl Iodide	5	U	5.	0.5	ug/l	106	106	75-128	0	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/l	102	102	75-120	0	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	91	92	51-124	0	30
Methylene Chloride	5	U	5.	2	ug/l	100	101	80-120	1	30
n-Propylbenzene	5	U	5.	1	ug/l	99	99	80-120	0	30
Styrene	5	U	5.	1	ug/l	99	99	80-120	0	30
1,1,1,2-Tetrachloroethane	5	U	5.	0.5	ug/l	99	98	80-120	1	30
1,1,2,2-Tetrachloroethane	5	U	5.	0.5	ug/l	99	98	70-120	1	30
Tetrachloroethene	5	U	5.	0.5	ug/l	99	99	80-120	0	30
Toluene	5	U	5.	0.5	ug/l	101	101	80-120	0	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	96	95	58-126	1	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	96	95	65-120	0	30
1,1,1-Trichloroethane	5	U	5.	0.5	ug/l	92	93	66-126	1	30
1,1,2-Trichloroethane	5	U	5.	0.5	ug/l	97	98	80-120	1	30
Trichloroethene	5	U	5.	0.5	ug/l	103	103	80-120	0	30
Trichlorofluoromethane	5	U	5.	0.5	ug/l	108	107	65-130	2	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	97	96	76-120	1	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	100	98	74-120	2	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	99	98	74-120	1	30
Vinyl Acetate	10	U	10.	2	ug/l	79	80	56-135	1	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474888
Reported: 05/29/14 at 02:13 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vinyl Chloride	5	U	5.	0.5	ug/l	102	103	63-120	1	30
m+p-Xylene	5	U	5.	0.5	ug/l	98	98	80-120	0	30
o-Xylene	5	U	5.	0.5	ug/l	99	99	80-120	0	30
Batch number: 14141162401B	Sample number(s): 7466272-7466274									
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: B141491AA	Sample number(s): 7466272-7466274 UNSPK: P475237								
Acetone	109	118	31-195	7	30				
Acrolein	87	71	10-165	22	30				
Acrylonitrile	75	82	48-139	8	30				
t-Amyl methyl ether	83	85	50-132	2	30				
Benzene	101	94	55-143	8	30				
Bromobenzene	109	92	43-139	18	30				
Bromochloromethane	118	110	60-137	8	30				
Bromodichloromethane	98	91	53-136	8	30				
Bromoform	94	91	50-144	4	30				
Bromomethane	121	111	42-168	9	30				
2-Butanone	85	93	37-163	8	30				
t-Butyl alcohol	95	88	47-153	8	30				
n-Butylbenzene	115	76	30-146	42*	30				
sec-Butylbenzene	109	88	33-157	23	30				
tert-Butylbenzene	108	86	41-152	23	30				
Carbon Disulfide	78	71	48-146	9	30				
Carbon Tetrachloride	109	100	51-165	9	30				
Chlorobenzene	105	93	49-135	13	30				
Chloroethane	114	106	39-152	8	30				
2-Chloroethyl Vinyl Ether	73	76	32-139	3	30				
Chloroform	111	105	61-142	7	30				
1-Chlorohexane	106	89	70-130	18	30				
Chloromethane	102	93	36-143	9	30				
2-Chlorotoluene	105	88	42-146	18	30				
4-Chlorotoluene	108	85	39-145	24	30				
Chlorotrifluoroethene	109	105	70-130	0	30				
1,2-Dibromo-3-chloropropane	79	74	34-165	7	30				
Dibromochloromethane	97	90	51-128	8	30				
1,2-Dibromoethane	95	91	54-129	5	30				
Dibromomethane	95	93	57-130	3	30				
1,2-Dichlorobenzene	111	89	36-133	24	30				
1,3-Dichlorobenzene	108	86	34-134	24	30				
1,4-Dichlorobenzene	108	83	35-136	27	30				
Dichlorodifluoromethane	106	102	26-151	5	30				
1,1-Dichloroethane	100	95	63-142	7	30				
1,2-Dichloroethane	108	104	54-143	5	30				
1,1-Dichloroethene	111	105	61-149	6	30				
cis-1,2-Dichloroethene	103	98	67-135	6	30				

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474888
Reported: 05/29/14 at 02:13 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
trans-1,2-Dichloroethene	111	103	64-144	9	30				
1,2-Dichloropropane	97	93	54-144	6	30				
1,3-Dichloropropane	94	89	51-140	6	30				
2,2-Dichloropropane	94	88	53-147	8	30				
1,1-Dichloropropene	106	97	54-145	10	30				
cis-1,3-Dichloropropene	88	86	45-137	3	30				
trans-1,3-Dichloropropene	85	82	51-134	5	30				
Ethyl t-butyl ether	85	87	58-124	2	30				
Ethylbenzene	102	91	44-141	13	30				
Freon 113	102	91	56-156	12	30				
Freon 133a	118	116	61-131	2	30				
Hexachlorobutadiene	127	75	10-155	53*	30				
2-Hexanone	74	81	32-160	8	30				
di-Isopropyl ether	91	90	59-133	3	30				
Isopropylbenzene	108	89	38-144	21	30				
p-Isopropyltoluene	103	79	29-152	28	30				
Methyl Iodide	106	99	52-139	8	30				
Methyl Tertiary Butyl Ether	86	90	55-129	4	30				
4-Methyl-2-pentanone	75	82	46-139	9	30				
Methylene Chloride	107	100	60-149	7	30				
n-Propylbenzene	111	88	39-157	23	30				
Styrene	105	90	35-134	16	30				
1,1,1,2-Tetrachloroethane	101	92	55-139	11	30				
1,1,2,2-Tetrachloroethane	88	87	29-182	2	30				
Tetrachloroethene	134	112	42-149	19	30				
Toluene	102	87	50-146	16	30				
1,2,3-Trichlorobenzene	104	75	10-140	33*	30				
1,2,4-Trichlorobenzene	102	73	10-136	33*	30				
1,1,1-Trichloroethane	99	93	52-146	7	30				
1,1,2-Trichloroethane	99	95	58-152	5	30				
Trichloroethene	105	97	53-144	9	30				
Trichlorofluoromethane	116	104	47-163	12	30				
1,2,3-Trichloropropane	95	91	36-180	5	30				
1,2,4-Trimethylbenzene	104	86	37-149	20	30				
1,3,5-Trimethylbenzene	109	87	38-150	24	30				
Vinyl Acetate	46	40	21-139	12	30				
Vinyl Chloride	111	100	50-154	11	30				
m+p-Xylene	104	88	44-137	18	30				
o-Xylene	101	89	42-137	14	30				
Batch number: 14141162401B	Sample number(s): 7466272-7466274					BKG: P466734			
14a Moisture Content by 160.3						4.8	5.2	8	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12a Volatile Organics EPA8260B

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1474888
Reported: 05/29/14 at 02:13 PM

Surrogate Quality Control

Batch number: B141491AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7466272	106	105	97	93
7466273	107	97	96	92
7466274	107	103	96	91
Blank	109	104	97	94
LCS	106	105	97	109
LCSD	106	103	98	102
MS	104	98	103	100
MSD	106	105	102	102
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141392AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7466271	98	99	99	95
7466275	100	101	99	95
Blank	99	100	99	95
LCS	99	102	100	100
LCSD	98	102	101	100
Limits:	86-118	80-120	88-110	86-115

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/15/2014
CarrierName: FedEx
AirbillNo: 798876647098

A-13013
G-1474888
S-7466271-75

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140515-03
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
TB-051514	5/15/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																		X																	
SVL-534-SA5B-SB-3.0-3.5	5/15/14 08:10	SO	None	3 - Encore	10 day																		X																	
SVL-534-SA5B-SB-3.0-3.5	5/15/14 08:10	SO	None	1 - 4 oz glass	10 day																		X																	Soil Moisture
SVL-538-SA5B-SB-1.5-2.0	5/15/14 08:45	SO	None	3 - Encore	10 day																		X																	
SVL-538-SA5B-SB-1.5-2.0	5/15/14 08:45	SO	None	1 - 4 oz glass	10 day																		X																	Soil Moisture
SVL-566-SA5B-SB-2.0-2.5	5/15/14 14:58	SO	None	3 - Encore	10 day																		X																	
SVL-566-SA5B-SB-2.0-2.5	5/15/14 14:58	SO	None	1 - 4 oz glass	10 day																		X																	Soil Moisture

Special Instructions:

Sampler: Rob Ellis

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Jeff Myers	05/15/14	1600									
										5/16/14	1010

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/15/2014
CarrierName: FedEx
AirbillNo: 798876647098

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140515-06
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

A-13013
G-1474888
S-746627I-75

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
EB2-051514	5/15/14 09:05	WQ	HCl	3 - 40 mL Vial	10 day																		X																	

Special Instructions:

Sampler: Rob Ellis

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Skyler Mypel	05/15/14	1600									
										5/16/14	1010

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 14684

Group Number(s): 1474888

Client: CDM

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/16/2014 10:10
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	3
Custody Seal Present:	Yes	Trip Blank Type:	HCl
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Wesley Miller (2308) at 11:11 on 05/16/2014

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT121	1.1	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

May 27, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/14/2014
Group Number: 1475001
SDG: PH180
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB2-051314 Water	7466838
SVL-532-SA5B-SB-4.0-5.0 Soil	7466839
SVL-532-SA5B-SB-4.0-5.0 MS Soil	7466840
SVL-532-SA5B-SB-4.0-5.0 MSD Soil	7466841
SVL-832-SA5B-SB-4.0-5.0 Soil	7466842

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: TB2-051314 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7466838
LL Group # 1475001
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 08:00

Submitted: 05/14/2014 09:50
Reported: 05/27/2014 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

2TB-- SDG#: PH180-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	5	U	5	0.5	1
10335	Benzene	71-43-2	5	U	5	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	5	U	5	0.5	1
10335	Bromoform	75-25-2	5	U	5	0.5	1
10335	Bromomethane	74-83-9	5	U	5	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	5	U	5	0.5	1
10335	Chlorobenzene	108-90-7	5	U	5	0.5	1
10335	Chloroethane	75-00-3	5	U	5	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	5	U	5	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	5	U	5	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	5	U	5	0.5	1
10335	1,2-Dibromoethane	106-93-4	5	U	5	0.5	1
10335	Dibromomethane	74-95-3	5	U	5	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	5	U	5	0.5	1
10335	1,1-Dichloroethane	75-34-3	5	U	5	0.5	1
10335	1,2-Dichloroethane	107-06-2	5	U	5	0.5	1
10335	1,1-Dichloroethene	75-35-4	5	U	5	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.5	1
10335	1,2-Dichloropropane	78-87-5	5	U	5	0.5	1
10335	1,3-Dichloropropane	142-28-9	5	U	5	0.5	1
10335	2,2-Dichloropropane	594-20-7	5	U	5	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.5	1
10335	Ethyl t-butyl ether	637-92-3	5	U	5	0.5	1
10335	Ethylbenzene	100-41-4	5	U	5	0.5	1
10335	Freon 113	76-13-1	5	U	5	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: TB2-051314 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7466838
LL Group # 1475001
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 08:00

Submitted: 05/14/2014 09:50
Reported: 05/27/2014 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

2TB-- SDG#: PH180-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	5	U	5	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	5	U	5	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	5	U	5	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.5	1
10335	Tetrachloroethene	127-18-4	5	U	5	0.5	1
10335	Toluene	108-88-3	5	U	5	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	5	U	5	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	5	U	5	0.5	1
10335	Trichloroethene	79-01-6	5	U	5	0.5	1
10335	Trichlorofluoromethane	75-69-4	5	U	5	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	5	U	5	0.5	1
10335	m+p-Xylene	179601-23-1	5	U	5	0.5	1
10335	o-Xylene	95-47-6	5	U	5	0.5	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: chlorotrifluoroethene.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141392AA	05/20/2014 00:45	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141392AA	05/20/2014 00:45	Kevin A Sposito	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-532-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7466839
LL Group # 1475001
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 08:40 by RE

Submitted: 05/14/2014 09:50
Reported: 05/27/2014 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

40536 SDG#: PH180-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	19	U	19	6	0.85
10237	Acrolein	107-02-8	93	U	93	19	0.85
10237	Acrylonitrile	107-13-1	19	U	19	4	0.85
10237	t-Amyl methyl ether	994-05-8	5	U	5	0.9	0.85
10237	Benzene	71-43-2	5	U	5	0.5	0.85
10237	Bromobenzene	108-86-1	5	U	5	0.9	0.85
10237	Bromochloromethane	74-97-5	5	U	5	0.9	0.85
10237	Bromodichloromethane	75-27-4	5	U	5	0.9	0.85
10237	Bromoform	75-25-2	5	U	5	0.9	0.85
10237	Bromomethane	74-83-9	5	U	5	2	0.85
10237	2-Butanone	78-93-3	9	U	9	4	0.85
10237	t-Butyl alcohol	75-65-0	46	U	46	19	0.85
10237	n-Butylbenzene	104-51-8	5	U	5	0.9	0.85
10237	sec-Butylbenzene	135-98-8	5	U	5	0.9	0.85
10237	tert-Butylbenzene	98-06-6	5	U	5	0.9	0.85
10237	Carbon Disulfide	75-15-0	5	U	5	0.9	0.85
10237	Carbon Tetrachloride	56-23-5	5	U	5	0.9	0.85
10237	Chlorobenzene	108-90-7	5	U	5	0.9	0.85
10237	Chloroethane	75-00-3	5	U	5	2	0.85
10237	2-Chloroethyl Vinyl Ether	110-75-8	9	U	9	2	0.85
10237	Chloroform	67-66-3	5	U	5	0.9	0.85
10237	1-Chlorohexane	544-10-5	5	U	5	0.9	0.85
10237	Chloromethane	74-87-3	5	U	5	2	0.85
10237	2-Chlorotoluene	95-49-8	5	U	5	0.9	0.85
10237	4-Chlorotoluene	106-43-4	5	U	5	0.9	0.85
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.85
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.85
10237	Dibromochloromethane	124-48-1	5	U	5	0.9	0.85
10237	1,2-Dibromoethane	106-93-4	5	U	5	0.9	0.85
10237	Dibromomethane	74-95-3	5	U	5	0.9	0.85
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	0.9	0.85
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	0.9	0.85
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	0.9	0.85
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.85
10237	1,1-Dichloroethane	75-34-3	5	U	5	0.9	0.85
10237	1,2-Dichloroethane	107-06-2	5	U	5	0.9	0.85
10237	1,1-Dichloroethene	75-35-4	5	U	5	0.9	0.85
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.9	0.85
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.9	0.85
10237	1,2-Dichloropropane	78-87-5	5	U	5	0.9	0.85
10237	1,3-Dichloropropane	142-28-9	5	U	5	0.9	0.85
10237	2,2-Dichloropropane	594-20-7	5	U	5	0.9	0.85
10237	1,1-Dichloropropene	563-58-6	5	U	5	0.9	0.85
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.9	0.85
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.9	0.85
10237	Ethyl t-butyl ether	637-92-3	5	U	5	0.9	0.85
10237	Ethylbenzene	100-41-4	5	U	5	0.9	0.85
10237	Freon 113	76-13-1	5	U	5	2	0.85
10237	Freon 133a	75-88-7	5	U	5	2	0.85
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.85
10237	2-Hexanone	591-78-6	9	U	9	3	0.85

*=This limit was used in the evaluation of the final result

Sample Description: SVL-532-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7466839
LL Group # 1475001
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 08:40 by RE

Submitted: 05/14/2014 09:50
Reported: 05/27/2014 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

40536 SDG#: PH180-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	0.9	0.85
10237	Isopropylbenzene	98-82-8	5	U	5	0.9	0.85
10237	p-Isopropyltoluene	99-87-6	5	U	5	0.9	0.85
10237	Methyl Iodide	74-88-4	5	U	5	3	0.85
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.85
10237	4-Methyl-2-pentanone	108-10-1	9	U	9	3	0.85
10237	Methylene Chloride	75-09-2	5	U	5	2	0.85
10237	n-Propylbenzene	103-65-1	5	U	5	0.9	0.85
10237	Styrene	100-42-5	5	U	5	0.9	0.85
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.9	0.85
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.9	0.85
10237	Tetrachloroethene	127-18-4	5	U	5	0.9	0.85
10237	Toluene	108-88-3	5	U	5	0.9	0.85
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	0.9	0.85
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	0.9	0.85
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	0.9	0.85
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	0.9	0.85
10237	Trichloroethene	79-01-6	5	U	5	0.9	0.85
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.85
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	0.9	0.85
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	0.9	0.85
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	0.9	0.85
10237	Vinyl Acetate	108-05-4	9	U	9	2	0.85
10237	Vinyl Chloride	75-01-4	5	U	5	0.9	0.85
10237	m+p-Xylene	179601-23-1	5	U	5	0.9	0.85
10237	o-Xylene	95-47-6	5	U	5	0.9	0.85
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	8.1		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141431AA	05/23/2014 18:03	Christopher G Torres	0.85
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201413934539	05/19/2014 10:49	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-532-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7466839
LL Group # 1475001
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 08:40 by RE

Submitted: 05/14/2014 09:50
Reported: 05/27/2014 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

40536 SDG#: PH180-02BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201413934539	05/19/2014 10:49	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201413934539	05/14/2014 16:31	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14136162401B	05/16/2014 18:04	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-532-SA5B-SB-4.0-5.0 MS Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7466840
LL Group # 1475001
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 08:40 by RE

Submitted: 05/14/2014 09:50
Reported: 05/27/2014 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

40536 SDG#: PH180-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg	ug/kg	ug/kg	
10237	Acetone	67-64-1	200	21	7	0.97
10237	Acrolein	107-02-8	110	110	21	0.97
10237	Acrylonitrile	107-13-1	100	21	4	0.97
10237	t-Amyl methyl ether	994-05-8	23	5	1	0.97
10237	Benzene	71-43-2	26	5	0.5	0.97
10237	Bromobenzene	108-86-1	28	5	1	0.97
10237	Bromochloromethane	74-97-5	27	5	1	0.97
10237	Bromodichloromethane	75-27-4	27	5	1	0.97
10237	Bromoform	75-25-2	28	5	1	0.97
10237	Bromomethane	74-83-9	25	5	2	0.97
10237	2-Butanone	78-93-3	170	11	4	0.97
10237	t-Butyl alcohol	75-65-0	250	53	21	0.97
10237	n-Butylbenzene	104-51-8	25	5	1	0.97
10237	sec-Butylbenzene	135-98-8	28	5	1	0.97
10237	tert-Butylbenzene	98-06-6	26	5	1	0.97
10237	Carbon Disulfide	75-15-0	25	5	1	0.97
10237	Carbon Tetrachloride	56-23-5	32	5	1	0.97
10237	Chlorobenzene	108-90-7	27	5	1	0.97
10237	Chloroethane	75-00-3	24	5	2	0.97
10237	2-Chloroethyl Vinyl Ether	110-75-8	16	11	2	0.97
10237	Chloroform	67-66-3	30	5	1	0.97
10237	1-Chlorohexane	544-10-5	22	5	1	0.97
10237	Chloromethane	74-87-3	21	5	2	0.97
10237	2-Chlorotoluene	95-49-8	26	5	1	0.97
10237	4-Chlorotoluene	106-43-4	26	5	1	0.97
10237	Chlorotrifluoroethene	79-38-9	15	5	2	0.99
10237	1,2-Dibromo-3-chloropropane	96-12-8	21	5	2	0.97
10237	Dibromochloromethane	124-48-1	27	5	1	0.97
10237	1,2-Dibromoethane	106-93-4	26	5	1	0.97
10237	Dibromomethane	74-95-3	26	5	1	0.97
10237	1,2-Dichlorobenzene	95-50-1	26	5	1	0.97
10237	1,3-Dichlorobenzene	541-73-1	27	5	1	0.97
10237	1,4-Dichlorobenzene	106-46-7	26	5	1	0.97
10237	Dichlorodifluoromethane	75-71-8	26	5	2	0.97
10237	1,1-Dichloroethane	75-34-3	27	5	1	0.97
10237	1,2-Dichloroethane	107-06-2	32	5	1	0.97
10237	1,1-Dichloroethene	75-35-4	30	5	1	0.97
10237	cis-1,2-Dichloroethene	156-59-2	27	5	1	0.97
10237	trans-1,2-Dichloroethene	156-60-5	30	5	1	0.97
10237	1,2-Dichloropropane	78-87-5	25	5	1	0.97
10237	1,3-Dichloropropane	142-28-9	24	5	1	0.97
10237	2,2-Dichloropropane	594-20-7	27	5	1	0.97
10237	1,1-Dichloropropene	563-58-6	28	5	1	0.97
10237	cis-1,3-Dichloropropene	10061-01-5	25	5	1	0.97
10237	trans-1,3-Dichloropropene	10061-02-6	24	5	1	0.97
10237	Ethyl t-butyl ether	637-92-3	23	5	1	0.97
10237	Ethylbenzene	100-41-4	28	5	1	0.97
10237	Freon 113	76-13-1	30	5	2	0.97
10237	Freon 133a	75-88-7	22	5	2	0.99
10237	Hexachlorobutadiene	87-68-3	29	5	2	0.97
10237	2-Hexanone	591-78-6	100	11	3	0.97

*=This limit was used in the evaluation of the final result

Sample Description: SVL-532-SA5B-SB-4.0-5.0 MS Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7466840
LL Group # 1475001
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 08:40 by RE

Submitted: 05/14/2014 09:50
Reported: 05/27/2014 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

40536 SDG#: PH180-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg	ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	24	5	1	0.97
10237	Isopropylbenzene	98-82-8	29	5	1	0.97
10237	p-Isopropyltoluene	99-87-6	25	5	1	0.97
10237	Methyl Iodide	74-88-4	31	5	3	0.97
10237	Methyl Tertiary Butyl Ether	1634-04-4	26	5	0.5	0.97
10237	4-Methyl-2-pentanone	108-10-1	110	11	3	0.97
10237	Methylene Chloride	75-09-2	40	5	2	0.97
10237	n-Propylbenzene	103-65-1	27	5	1	0.97
10237	Styrene	100-42-5	27	5	1	0.97
10237	1,1,1,2-Tetrachloroethane	630-20-6	28	5	1	0.97
10237	1,1,2,2-Tetrachloroethane	79-34-5	22	5	1	0.97
10237	Tetrachloroethene	127-18-4	32	5	1	0.97
10237	Toluene	108-88-3	25	5	1	0.97
10237	1,2,3-Trichlorobenzene	87-61-6	23	5	1	0.97
10237	1,2,4-Trichlorobenzene	120-82-1	24	5	1	0.97
10237	1,1,1-Trichloroethane	71-55-6	28	5	1	0.97
10237	1,1,2-Trichloroethane	79-00-5	26	5	1	0.97
10237	Trichloroethene	79-01-6	28	5	1	0.97
10237	Trichlorofluoromethane	75-69-4	27	5	2	0.97
10237	1,2,3-Trichloropropane	96-18-4	25	5	1	0.97
10237	1,2,4-Trimethylbenzene	95-63-6	27	5	1	0.97
10237	1,3,5-Trimethylbenzene	108-67-8	27	5	1	0.97
10237	Vinyl Acetate	108-05-4	32	11	2	0.99
10237	Vinyl Chloride	75-01-4	22	5	1	0.97
10237	m+p-Xylene	179601-23-1	54	5	1	0.97
10237	o-Xylene	95-47-6	26	5	1	0.97
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	14a Moisture Content by 160.3	n.a.	8.1	0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141431AA	05/23/2014 18:25	Christopher G Torres	0.97
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141431AA	05/23/2014 19:10	Christopher G Torres	0.99
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201413934539	05/19/2014 10:49	Mitchell R Washel	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201413934539	05/19/2014 10:49	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-532-SA5B-SB-4.0-5.0 MS Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7466840
LL Group # 1475001
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 08:40 by RE

Submitted: 05/14/2014 09:50
Reported: 05/27/2014 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

40536 SDG#: PH180-02MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201413934539	05/14/2014 16:33	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201414334601	05/23/2014 13:41	Lisa J Cooke	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201414334601	05/23/2014 13:41	Lisa J Cooke	n.a.
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14136162401B	05/16/2014 18:04	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-532-SA5B-SB-4.0-5.0 MSD Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7466841
LL Group # 1475001
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 08:40 by RE

Submitted: 05/14/2014 09:50
Reported: 05/27/2014 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

40536 SDG#: PH180-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg	ug/kg	ug/kg	
10237	Acetone	67-64-1	180	22	8	1
10237	Acrolein	107-02-8	130	110	22	1
10237	Acrylonitrile	107-13-1	89	22	4	1
10237	t-Amyl methyl ether	994-05-8	20	5	1	1
10237	Benzene	71-43-2	22	5	0.5	1
10237	Bromobenzene	108-86-1	24	5	1	1
10237	Bromochloromethane	74-97-5	26	5	1	1
10237	Bromodichloromethane	75-27-4	22	5	1	1
10237	Bromoform	75-25-2	23	5	1	1
10237	Bromomethane	74-83-9	27	5	2	1
10237	2-Butanone	78-93-3	150	11	4	1
10237	t-Butyl alcohol	75-65-0	250	54	22	1
10237	n-Butylbenzene	104-51-8	22	5	1	1
10237	sec-Butylbenzene	135-98-8	22	5	1	1
10237	tert-Butylbenzene	98-06-6	23	5	1	1
10237	Carbon Disulfide	75-15-0	20	5	1	1
10237	Carbon Tetrachloride	56-23-5	27	5	1	1
10237	Chlorobenzene	108-90-7	22	5	1	1
10237	Chloroethane	75-00-3	25	5	2	1
10237	2-Chloroethyl Vinyl Ether	110-75-8	20	11	2	1
10237	Chloroform	67-66-3	26	5	1	1
10237	1-Chlorohexane	544-10-5	21	5	1	1
10237	Chloromethane	74-87-3	22	5	2	1
10237	2-Chlorotoluene	95-49-8	23	5	1	1
10237	4-Chlorotoluene	106-43-4	23	5	1	1
10237	Chlorotrifluoroethene	79-38-9	16	5	2	0.97
10237	1,2-Dibromo-3-chloropropane	96-12-8	20	5	2	1
10237	Dibromochloromethane	124-48-1	23	5	1	1
10237	1,2-Dibromoethane	106-93-4	21	5	1	1
10237	Dibromomethane	74-95-3	22	5	1	1
10237	1,2-Dichlorobenzene	95-50-1	23	5	1	1
10237	1,3-Dichlorobenzene	541-73-1	23	5	1	1
10237	1,4-Dichlorobenzene	106-46-7	22	5	1	1
10237	Dichlorodifluoromethane	75-71-8	26	5	2	1
10237	1,1-Dichloroethane	75-34-3	22	5	1	1
10237	1,2-Dichloroethane	107-06-2	26	5	1	1
10237	1,1-Dichloroethene	75-35-4	25	5	1	1
10237	cis-1,2-Dichloroethene	156-59-2	23	5	1	1
10237	trans-1,2-Dichloroethene	156-60-5	25	5	1	1
10237	1,2-Dichloropropane	78-87-5	21	5	1	1
10237	1,3-Dichloropropane	142-28-9	20	5	1	1
10237	2,2-Dichloropropane	594-20-7	23	5	1	1
10237	1,1-Dichloropropene	563-58-6	24	5	1	1
10237	cis-1,3-Dichloropropene	10061-01-5	20	5	1	1
10237	trans-1,3-Dichloropropene	10061-02-6	20	5	1	1
10237	Ethyl t-butyl ether	637-92-3	20	5	1	1
10237	Ethylbenzene	100-41-4	23	5	1	1
10237	Freon 113	76-13-1	25	5	2	1
10237	Freon 133a	75-88-7	23	5	2	0.97
10237	Hexachlorobutadiene	87-68-3	25	5	2	1
10237	2-Hexanone	591-78-6	87	11	3	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-532-SA5B-SB-4.0-5.0 MSD Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7466841
LL Group # 1475001
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 08:40 by RE

Submitted: 05/14/2014 09:50
Reported: 05/27/2014 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

40536 SDG#: PH180-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg	ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	20	5	1	1
10237	Isopropylbenzene	98-82-8	24	5	1	1
10237	p-Isopropyltoluene	99-87-6	22	5	1	1
10237	Methyl Iodide	74-88-4	26	5	3	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	22	5	0.5	1
10237	4-Methyl-2-pentanone	108-10-1	90	11	3	1
10237	Methylene Chloride	75-09-2	52	5	2	1
10237	n-Propylbenzene	103-65-1	24	5	1	1
10237	Styrene	100-42-5	22	5	1	1
10237	1,1,1,2-Tetrachloroethane	630-20-6	23	5	1	1
10237	1,1,2,2-Tetrachloroethane	79-34-5	19	5	1	1
10237	Tetrachloroethene	127-18-4	26	5	1	1
10237	Toluene	108-88-3	22	5	1	1
10237	1,2,3-Trichlorobenzene	87-61-6	21	5	1	1
10237	1,2,4-Trichlorobenzene	120-82-1	21	5	1	1
10237	1,1,1-Trichloroethane	71-55-6	23	5	1	1
10237	1,1,2-Trichloroethane	79-00-5	22	5	1	1
10237	Trichloroethene	79-01-6	24	5	1	1
10237	Trichlorofluoromethane	75-69-4	28	5	2	1
10237	1,2,3-Trichloropropane	96-18-4	21	5	1	1
10237	1,2,4-Trimethylbenzene	95-63-6	23	5	1	1
10237	1,3,5-Trimethylbenzene	108-67-8	24	5	1	1
10237	Vinyl Acetate	108-05-4	25	11	2	0.97
10237	Vinyl Chloride	75-01-4	23	5	1	1
10237	m+p-Xylene	179601-23-1	45	5	1	1
10237	o-Xylene	95-47-6	21	5	1	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	14a Moisture Content by 160.3	n.a.	8.1	0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	8.0	0.10	0.10	1

The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141431AA	05/23/2014 18:48	Christopher G Torres	1
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141431AA	05/23/2014 19:32	Christopher G Torres	0.97

*=This limit was used in the evaluation of the final result

Sample Description: SVL-532-SA5B-SB-4.0-5.0 MSD Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7466841
LL Group # 1475001
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 08:40 by RE

Submitted: 05/14/2014 09:50
Reported: 05/27/2014 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

40536 SDG#: PH180-02MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201413934539	05/19/2014 10:49	Mitchell R Washel	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201413934539	05/19/2014 10:49	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201413934539	05/14/2014 16:35	Mitchell R Washel	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201414334601	05/23/2014 13:41	Lisa J Cooke	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201414334601	05/23/2014 13:41	Lisa J Cooke	n.a.
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14136162401B	05/16/2014 18:04	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	14136162401B	05/16/2014 18:04	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-832-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7466842
LL Group # 1475001
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 08:45 by RE

Submitted: 05/14/2014 09:50
Reported: 05/27/2014 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

40836 SDG#: PH180-03*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	19	U	19	7	0.87
10237	Acrolein	107-02-8	93	U	93	19	0.87
10237	Acrylonitrile	107-13-1	19	U	19	4	0.87
10237	t-Amyl methyl ether	994-05-8	5	U	5	0.9	0.87
10237	Benzene	71-43-2	5	U	5	0.5	0.87
10237	Bromobenzene	108-86-1	5	U	5	0.9	0.87
10237	Bromochloromethane	74-97-5	5	U	5	0.9	0.87
10237	Bromodichloromethane	75-27-4	5	U	5	0.9	0.87
10237	Bromoform	75-25-2	5	U	5	0.9	0.87
10237	Bromomethane	74-83-9	5	U	5	2	0.87
10237	2-Butanone	78-93-3	9	U	9	4	0.87
10237	t-Butyl alcohol	75-65-0	47	U	47	19	0.87
10237	n-Butylbenzene	104-51-8	5	U	5	0.9	0.87
10237	sec-Butylbenzene	135-98-8	5	U	5	0.9	0.87
10237	tert-Butylbenzene	98-06-6	5	U	5	0.9	0.87
10237	Carbon Disulfide	75-15-0	5	U	5	0.9	0.87
10237	Carbon Tetrachloride	56-23-5	5	U	5	0.9	0.87
10237	Chlorobenzene	108-90-7	5	U	5	0.9	0.87
10237	Chloroethane	75-00-3	5	U	5	2	0.87
10237	2-Chloroethyl Vinyl Ether	110-75-8	9	U	9	2	0.87
10237	Chloroform	67-66-3	5	U	5	0.9	0.87
10237	1-Chlorohexane	544-10-5	5	U	5	0.9	0.87
10237	Chloromethane	74-87-3	5	U	5	2	0.87
10237	2-Chlorotoluene	95-49-8	5	U	5	0.9	0.87
10237	4-Chlorotoluene	106-43-4	5	U	5	0.9	0.87
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.87
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.87
10237	Dibromochloromethane	124-48-1	5	U	5	0.9	0.87
10237	1,2-Dibromoethane	106-93-4	5	U	5	0.9	0.87
10237	Dibromomethane	74-95-3	5	U	5	0.9	0.87
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	0.9	0.87
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	0.9	0.87
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	0.9	0.87
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.87
10237	1,1-Dichloroethane	75-34-3	5	U	5	0.9	0.87
10237	1,2-Dichloroethane	107-06-2	5	U	5	0.9	0.87
10237	1,1-Dichloroethene	75-35-4	5	U	5	0.9	0.87
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.9	0.87
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.9	0.87
10237	1,2-Dichloropropane	78-87-5	5	U	5	0.9	0.87
10237	1,3-Dichloropropane	142-28-9	5	U	5	0.9	0.87
10237	2,2-Dichloropropane	594-20-7	5	U	5	0.9	0.87
10237	1,1-Dichloropropene	563-58-6	5	U	5	0.9	0.87
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.9	0.87
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.9	0.87
10237	Ethyl t-butyl ether	637-92-3	5	U	5	0.9	0.87
10237	Ethylbenzene	100-41-4	5	U	5	0.9	0.87
10237	Freon 113	76-13-1	5	U	5	2	0.87
10237	Freon 133a	75-88-7	5	U	5	2	0.87
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.87
10237	2-Hexanone	591-78-6	9	U	9	3	0.87

*=This limit was used in the evaluation of the final result

Sample Description: SVL-832-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7466842
LL Group # 1475001
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 08:45 by RE

Submitted: 05/14/2014 09:50
Reported: 05/27/2014 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

40836 SDG#: PH180-03*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	0.9	0.87
10237	Isopropylbenzene	98-82-8	5	U	5	0.9	0.87
10237	p-Isopropyltoluene	99-87-6	5	U	5	0.9	0.87
10237	Methyl Iodide	74-88-4	5	U	5	3	0.87
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.87
10237	4-Methyl-2-pentanone	108-10-1	9	U	9	3	0.87
10237	Methylene Chloride	75-09-2	5	U	5	2	0.87
10237	n-Propylbenzene	103-65-1	5	U	5	0.9	0.87
10237	Styrene	100-42-5	5	U	5	0.9	0.87
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.9	0.87
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.9	0.87
10237	Tetrachloroethene	127-18-4	5	U	5	0.9	0.87
10237	Toluene	108-88-3	5	U	5	0.9	0.87
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	0.9	0.87
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	0.9	0.87
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	0.9	0.87
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	0.9	0.87
10237	Trichloroethene	79-01-6	5	U	5	0.9	0.87
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.87
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	0.9	0.87
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	0.9	0.87
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	0.9	0.87
10237	Vinyl Acetate	108-05-4	9	U	9	2	0.87
10237	Vinyl Chloride	75-01-4	5	U	5	0.9	0.87
10237	m+p-Xylene	179601-23-1	5	U	5	0.9	0.87
10237	o-Xylene	95-47-6	5	U	5	0.9	0.87
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3	n.a.	7.3		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141431AA	05/23/2014 19:55	Christopher G Torres	0.87
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201413934539	05/19/2014 10:49	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-832-SA5B-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7466842
LL Group # 1475001
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/13/2014 08:45 by RE

Submitted: 05/14/2014 09:50
Reported: 05/27/2014 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

40836 SDG#: PH180-03*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201413934539	05/19/2014 10:49	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201413934539	05/14/2014 16:37	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14136162401B	05/16/2014 18:04	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475001
Reported: 05/27/14 at 02:30 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B141431AA	Sample number(s): 7466839-7466842								
Acetone	20 U	20.	7	ug/kg	98		41-149		
Acrolein	100 U	100.	20	ug/kg	79		50-137		
Acrylonitrile	20 U	20.	4	ug/kg	87		58-123		
t-Amyl methyl ether	5 U	5.	1	ug/kg	92		63-130		
Benzene	5 U	5.	0.5	ug/kg	97		80-120		
Bromobenzene	5 U	5.	1	ug/kg	105		78-120		
Bromochloromethane	5 U	5.	1	ug/kg	121		75-129		
Bromodichloromethane	5 U	5.	1	ug/kg	102		75-120		
Bromoform	5 U	5.	1	ug/kg	107		70-126		
Bromomethane	5 U	5.	2	ug/kg	109		32-162		
2-Butanone	10 U	10.	4	ug/kg	94		47-136		
t-Butyl alcohol	50 U	50.	20	ug/kg	118		66-133		
n-Butylbenzene	5 U	5.	1	ug/kg	97		72-120		
sec-Butylbenzene	5 U	5.	1	ug/kg	99		69-120		
tert-Butylbenzene	5 U	5.	1	ug/kg	95		75-120		
Carbon Disulfide	5 U	5.	1	ug/kg	90		63-128		
Carbon Tetrachloride	5 U	5.	1	ug/kg	113		69-130		
Chlorobenzene	5 U	5.	1	ug/kg	102		80-120		
Chloroethane	5 U	5.	2	ug/kg	102		17-171		
2-Chloroethyl Vinyl Ether	10 U	10.	2	ug/kg	83		52-134		
Chloroform	5 U	5.	1	ug/kg	113		80-120		
1-Chlorohexane	5 U	5.	1	ug/kg	93		70-130		
Chloromethane	5 U	5.	2	ug/kg	89		56-120		
2-Chlorotoluene	5 U	5.	1	ug/kg	99		78-120		
4-Chlorotoluene	5 U	5.	1	ug/kg	98		79-120		
Chlorotrifluoroethene	5 U	5.	2	ug/kg	64		22-131		
1,2-Dibromo-3-chloropropane	5 U	5.	2	ug/kg	90		50-132		
Dibromochloromethane	5 U	5.	1	ug/kg	104		77-120		
1,2-Dibromoethane	5 U	5.	1	ug/kg	102		80-120		
Dibromomethane	5 U	5.	1	ug/kg	101		75-120		
1,2-Dichlorobenzene	5 U	5.	1	ug/kg	102		80-120		
1,3-Dichlorobenzene	5 U	5.	1	ug/kg	104		80-120		
1,4-Dichlorobenzene	5 U	5.	1	ug/kg	102		80-120		
Dichlorodifluoromethane	5 U	5.	2	ug/kg	96		26-137		
1,1-Dichloroethane	5 U	5.	1	ug/kg	101		71-122		
1,2-Dichloroethane	5 U	5.	1	ug/kg	120		66-136		
1,1-Dichloroethene	5 U	5.	1	ug/kg	109		73-129		
cis-1,2-Dichloroethene	5 U	5.	1	ug/kg	101		80-120		
trans-1,2-Dichloroethene	5 U	5.	1	ug/kg	111		79-120		
1,2-Dichloropropane	5 U	5.	1	ug/kg	92		77-120		
1,3-Dichloropropane	5 U	5.	1	ug/kg	97		73-120		
2,2-Dichloropropane	5 U	5.	1	ug/kg	95		72-123		

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475001
Reported: 05/27/14 at 02:30 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/kg	102		77-120		
cis-1,3-Dichloropropene	5	U	5.	1	ug/kg	91		74-120		
trans-1,3-Dichloropropene	5	U	5.	1	ug/kg	93		69-120		
Ethyl t-butyl ether	5	U	5.	1	ug/kg	90		59-134		
Ethylbenzene	5	U	5.	1	ug/kg	102		80-120		
Freon 113	5	U	5.	2	ug/kg	97		64-137		
Freon 133a	5	U	5.	2	ug/kg	98		78-120		
Hexachlorobutadiene	5	U	5.	2	ug/kg	118		46-130		
2-Hexanone	10	U	10.	3	ug/kg	83		40-129		
di-Isopropyl ether	5	U	5.	1	ug/kg	93		68-128		
Isopropylbenzene	5	U	5.	1	ug/kg	106		76-120		
p-Isopropyltoluene	5	U	5.	1	ug/kg	92		69-120		
Methyl Iodide	5	U	5.	3	ug/kg	116		72-130		
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/kg	102		69-126		
4-Methyl-2-pentanone	10	U	10.	3	ug/kg	85		43-133		
Methylene Chloride	5	U	5.	2	ug/kg	105		80-124		
n-Propylbenzene	5	U	5.	1	ug/kg	100		77-120		
Styrene	5	U	5.	1	ug/kg	103		76-120		
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/kg	106		80-120		
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/kg	91		71-123		
Tetrachloroethene	5	U	5.	1	ug/kg	107		78-120		
Toluene	5	U	5.	1	ug/kg	96		80-120		
1,2,3-Trichlorobenzene	5	U	5.	1	ug/kg	107		64-120		
1,2,4-Trichlorobenzene	5	U	5.	1	ug/kg	102		68-120		
1,1,1-Trichloroethane	5	U	5.	1	ug/kg	100		63-135		
1,1,2-Trichloroethane	5	U	5.	1	ug/kg	104		80-120		
Trichloroethene	5	U	5.	1	ug/kg	105		80-120		
Trichlorofluoromethane	5	U	5.	2	ug/kg	105		58-133		
1,2,3-Trichloropropane	5	U	5.	1	ug/kg	101		71-123		
1,2,4-Trimethylbenzene	5	U	5.	1	ug/kg	100		79-120		
1,3,5-Trimethylbenzene	5	U	5.	1	ug/kg	103		78-120		
Vinyl Acetate	10	U	10.	2	ug/kg	71		40-127		
Vinyl Chloride	5	U	5.	1	ug/kg	93		59-120		
m+p-Xylene	5	U	5.	1	ug/kg	101		80-120		
o-Xylene	5	U	5.	1	ug/kg	99		80-120		
Batch number: Y141392AA	Sample number(s): 7466838									
Acetone	20	U	20.	6	ug/l	84	84	43-149	1	30
Acrolein	100	U	100.	40	ug/l	87	87	52-129	1	30
Acrylonitrile	20	U	20.	4	ug/l	85	88	62-120	4	30
t-Amyl methyl ether	5	U	5.	0.5	ug/l	103	104	75-120	1	30
Benzene	5	U	5.	0.5	ug/l	102	101	78-120	1	30
Bromobenzene	5	U	5.	1	ug/l	98	97	80-120	2	30
Bromochloromethane	5	U	5.	1	ug/l	89	89	80-121	0	30
Bromodichloromethane	5	U	5.	0.5	ug/l	92	92	73-120	0	30
Bromoform	5	U	5.	0.5	ug/l	83	82	61-120	1	30
Bromomethane	5	U	5.	0.5	ug/l	93	94	58-120	1	30
2-Butanone	10	U	10.	3	ug/l	91	92	54-133	1	30
t-Butyl alcohol	50	U	50.	5	ug/l	99	100	75-120	1	30
n-Butylbenzene	5	U	5.	1	ug/l	95	95	68-120	1	30
sec-Butylbenzene	5	U	5.	1	ug/l	98	97	80-120	0	30
tert-Butylbenzene	5	U	5.	1	ug/l	97	95	73-120	1	30
Carbon Disulfide	5	U	5.	1	ug/l	89	91	58-126	2	30
Carbon Tetrachloride	5	U	5.	0.5	ug/l	101	101	74-130	0	30
Chlorobenzene	5	U	5.	0.5	ug/l	100	100	80-120	0	30

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475001
Reported: 05/27/14 at 02:30 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroethane	5	U	5.	0.5	ug/l	83	83	56-120	0	30
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/l	98	99	54-126	1	30
Chloroform	5	U	5.	0.5	ug/l	100	100	80-122	0	30
1-Chlorohexane	5	U	5.	1	ug/l	105	104	80-120	0	30
Chloromethane	5	U	5.	0.5	ug/l	97	97	63-120	0	30
2-Chlorotoluene	5	U	5.	1	ug/l	98	98	80-120	1	30
4-Chlorotoluene	5	U	5.	1	ug/l	99	97	80-120	2	30
Chlorotrifluoroethene	5	U	5.	2	ug/l	42*	42*	47-120	0	30
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/l	93	94	56-120	2	30
Dibromochloromethane	5	U	5.	0.5	ug/l	93	94	72-120	1	30
1,2-Dibromoethane	5	U	5.	0.5	ug/l	101	100	76-120	1	30
Dibromomethane	5	U	5.	0.5	ug/l	96	97	80-120	1	30
1,2-Dichlorobenzene	5	U	5.	1	ug/l	99	98	80-120	1	30
1,3-Dichlorobenzene	5	U	5.	1	ug/l	99	98	80-120	2	30
1,4-Dichlorobenzene	5	U	5.	1	ug/l	100	97	80-120	2	30
Dichlorodifluoromethane	5	U	5.	0.5	ug/l	106	105	48-132	0	30
1,1-Dichloroethane	5	U	5.	0.5	ug/l	99	99	80-120	1	30
1,2-Dichloroethane	5	U	5.	0.5	ug/l	99	99	65-135	0	30
1,1-Dichloroethene	5	U	5.	0.5	ug/l	102	104	76-124	1	30
cis-1,2-Dichloroethene	5	U	5.	0.5	ug/l	101	101	80-120	0	30
trans-1,2-Dichloroethene	5	U	5.	0.5	ug/l	104	104	80-120	0	30
1,2-Dichloropropane	5	U	5.	0.5	ug/l	101	100	80-120	1	30
1,3-Dichloropropane	5	U	5.	0.5	ug/l	98	98	80-120	0	30
2,2-Dichloropropane	5	U	5.	0.5	ug/l	100	100	67-124	0	30
1,1-Dichloropropene	5	U	5.	1	ug/l	108	108	80-120	0	30
cis-1,3-Dichloropropene	5	U	5.	0.5	ug/l	96	95	80-120	0	30
trans-1,3-Dichloropropene	5	U	5.	0.5	ug/l	95	95	76-120	0	30
Ethyl t-butyl ether	5	U	5.	0.5	ug/l	102	103	74-120	1	30
Ethylbenzene	5	U	5.	0.5	ug/l	99	98	79-120	1	30
Freon 113	5	U	5.	2	ug/l	109	110	67-127	0	30
Freon 133a	5	U	5.	2	ug/l	85	87	46-152	2	30
Hexachlorobutadiene	5	U	5.	2	ug/l	86	84	51-125	2	30
2-Hexanone	10	U	10.	3	ug/l	92	92	44-126	0	30
di-Isopropyl ether	5	U	5.	0.5	ug/l	106	106	65-120	1	30
Isopropylbenzene	5	U	5.	1	ug/l	98	98	77-120	1	30
p-Isopropyltoluene	5	U	5.	1	ug/l	95	94	80-120	1	30
Methyl Iodide	5	U	5.	0.5	ug/l	106	106	75-128	0	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/l	102	102	75-120	0	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	91	92	51-124	0	30
Methylene Chloride	5	U	5.	2	ug/l	100	101	80-120	1	30
n-Propylbenzene	5	U	5.	1	ug/l	99	99	80-120	0	30
Styrene	5	U	5.	1	ug/l	99	99	80-120	0	30
1,1,1,2-Tetrachloroethane	5	U	5.	0.5	ug/l	99	98	80-120	1	30
1,1,2,2-Tetrachloroethane	5	U	5.	0.5	ug/l	99	98	70-120	1	30
Tetrachloroethene	5	U	5.	0.5	ug/l	99	99	80-120	0	30
Toluene	5	U	5.	0.5	ug/l	101	101	80-120	0	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	96	95	58-126	1	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	96	95	65-120	0	30
1,1,1-Trichloroethane	5	U	5.	0.5	ug/l	92	93	66-126	1	30
1,1,2-Trichloroethane	5	U	5.	0.5	ug/l	97	98	80-120	1	30
Trichloroethene	5	U	5.	0.5	ug/l	103	103	80-120	0	30
Trichlorofluoromethane	5	U	5.	0.5	ug/l	108	107	65-130	2	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	97	96	76-120	1	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	100	98	74-120	2	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	99	98	74-120	1	30
Vinyl Acetate	10	U	10.	2	ug/l	79	80	56-135	1	30

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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475001
Reported: 05/27/14 at 02:30 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vinyl Chloride	5	U	5.	0.5	ug/l	102	103	63-120	1	30
m+p-Xylene	5	U	5.	0.5	ug/l	98	98	80-120	0	30
o-Xylene	5	U	5.	0.5	ug/l	99	99	80-120	0	30
Batch number: 14136162401B	Sample number(s): 7466839-7466842									
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: B141431AA	Sample number(s): 7466839-7466842 UNSPK: 7466839								
Acetone	129	113	31-195	11	30				
Acrolein	67	81	10-165	21	30				
Acrylonitrile	96	82	48-139	13	30				
t-Amyl methyl ether	111	94	50-132	14	30				
Benzene	123	101	55-143	17	30				
Bromobenzene	130	109	43-139	15	30				
Bromochloromethane	127	120	60-137	3	30				
Bromodichloromethane	126	104	53-136	17	30				
Bromoform	131	105	50-144	20	30				
Bromomethane	120	124	42-168	6	30				
2-Butanone	110	95	37-163	13	30				
t-Butyl alcohol	117	115	47-153	0	30				
n-Butylbenzene	117	101	30-146	12	30				
sec-Butylbenzene	131	102	33-157	22	30				
tert-Butylbenzene	125	108	41-152	13	30				
Carbon Disulfide	118	94	48-146	20	30				
Carbon Tetrachloride	152	123	51-165	18	30				
Chlorobenzene	130	102	49-135	22	30				
Chloroethane	113	117	39-152	6	30				
2-Chloroethyl Vinyl Ether	76	92	32-139	21	30				
Chloroform	144*	119	61-142	17	30				
1-Chlorohexane	104	98	70-130	4	30				
Chloromethane	98	99	36-143	4	30				
2-Chlorotoluene	123	104	42-146	14	30				
4-Chlorotoluene	122	104	39-145	13	30				
Chlorotrifluoroethene	72	76	70-130	3	30				
1,2-Dibromo-3-chloropropane	98	90	34-165	7	30				
Dibromochloromethane	129*	105	51-128	18	30				
1,2-Dibromoethane	122	99	54-129	19	30				
Dibromomethane	124	103	57-130	17	30				
1,2-Dichlorobenzene	123	108	36-133	11	30				
1,3-Dichlorobenzene	128	104	34-134	19	30				
1,4-Dichlorobenzene	122	103	35-136	14	30				
Dichlorodifluoromethane	121	122	26-151	3	30				
1,1-Dichloroethane	127	103	63-142	18	30				
1,2-Dichloroethane	149*	120	54-143	19	30				

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475001
Reported: 05/27/14 at 02:30 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
1,1-Dichloroethene	142	117	61-149	17	30				
cis-1,2-Dichloroethene	128	105	67-135	18	30				
trans-1,2-Dichloroethene	140	113	64-144	19	30				
1,2-Dichloropropane	116	97	54-144	16	30				
1,3-Dichloropropane	114	92	51-140	18	30				
2,2-Dichloropropane	129	104	53-147	19	30				
1,1-Dichloropropene	134	110	54-145	17	30				
cis-1,3-Dichloropropene	117	93	45-137	20	30				
trans-1,3-Dichloropropene	113	92	51-134	18	30				
Ethyl t-butyl ether	110	94	58-124	13	30				
Ethylbenzene	131	104	44-141	21	30				
Freon 113	142	115	56-156	18	30				
Freon 133a	101	107	61-131	4	30				
Hexachlorobutadiene	139	115	10-155	17	30				
2-Hexanone	96	81	32-160	15	30				
di-Isopropyl ether	112	94	59-133	15	30				
Isopropylbenzene	136	110	38-144	19	30				
p-Isopropyltoluene	117	100	29-152	13	30				
Methyl Iodide	148*	120	52-139	18	30				
Methyl Tertiary Butyl Ether	121	101	55-129	15	30				
4-Methyl-2-pentanone	100	83	46-139	16	30				
Methylene Chloride	188*	238*	60-149	26	30				
n-Propylbenzene	128	109	39-157	14	30				
Styrene	128	102	35-134	20	30				
1,1,1,2-Tetrachloroethane	134	106	55-139	21	30				
1,1,2,2-Tetrachloroethane	104	89	29-182	13	30				
Tetrachloroethene	151*	122	42-149	19	30				
Toluene	120	100	50-146	16	30				
1,2,3-Trichlorobenzene	111	96	10-140	12	30				
1,2,4-Trichlorobenzene	114	98	10-136	12	30				
1,1,1-Trichloroethane	131	106	52-146	19	30				
1,1,2-Trichloroethane	123	99	58-152	19	30				
Trichloroethene	132	109	53-144	17	30				
Trichlorofluoromethane	127	127	47-163	2	30				
1,2,3-Trichloropropane	120	98	36-180	18	30				
1,2,4-Trimethylbenzene	127	108	37-149	14	30				
1,3,5-Trimethylbenzene	126	110	38-150	11	30				
Vinyl Acetate	30	23	21-139	25	30				
Vinyl Chloride	104	108	50-154	6	30				
m+p-Xylene	129	104	44-137	19	30				
o-Xylene	124	99	42-137	20	30				
Batch number: 14136162401B	Sample number(s): 7466839-7466842					BKG: P462593			
14a Moisture Content by 160.3						8.1	8.0	1	20
14a Moisture Content by 160.3						8.1	8.0	1	20
14a Moisture Content by 160.3						8.1	8.0	1	20

Surrogate Quality Control

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475001
Reported: 05/27/14 at 02:30 PM

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12a Volatile Organics EPA8260B
Batch number: B141431AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7466839	109	98	98	96
7466840	110	103	101	104
7466841	111	105	97	95
7466842	109	100	99	96
Blank	110	100	99	97
LCS	108	106	102	105
MS	110	103	101	104
MSD	111	105	97	95
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141392AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7466838	99	103	100	96
Blank	99	100	99	95
LCS	99	102	100	100
LCSD	98	102	101	100
Limits:	86-118	80-120	88-110	86-115

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SSFL Phase 3 Chain of Custody

1475001
A-13013 G-~~474152~~ CMC 5/15/14 (3)
S-~~7462588-97~~
7466838-42

CDM Smith

DateShipped: 5/13/2014
CarrierName: FedEx
AirbillNo: 798848021746

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140513-02
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate Confirm 6850/6860	Perchlorate 314.0/331	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate. Nitrite. TKN	TOC SM 5310B	Grain Size ASTM 2488--09a	Other Analysis/Notes
TB2-051314	5/13/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																		X																	
SVL-536-SA5B-SB-4.0-5.0MS	5/13/14 08:40	SO	None	9 - Encore	10 day																		X																	ms/msd
SVL-536-SA5B-SB-4.0-5.0MS	5/13/14 08:40	SO	None	1 - 8 oz glass	10 day																		X																	Soil Moisture. MS/MSD
SVL-836-SA5B-SB-4.0-5.0	5/13/14 08:45	SO	None	3 - Encore	10 day																		X																	
SVL-836-SA5B-SB-4.0-5.0	5/13/14 08:45	SO	None	1 - 4 oz glass	10 day																		X																	Soil Moisture

Special Instructions:

Sampler: Rob Ellis

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Shyft/Myers	5/13/2014	1600									
									Bmy/Bm	5.14.14	950

Nicole Maljovec 13013/1475001/7466838-42 NLM 5/17/14

From: Mysel, Stefanie <MyselSJ@cdmsmith.com>
Sent: Wednesday, May 14, 2014 11:51 AM
To: Nicole Maljovec
Cc: Burgesser, Todd; Hartman, Pamela; Zakowski, Cherie
Subject: RE: SSFL 05/13/2014 COC
Attachments: Lancaster 051314 COC(2)-REV.pdf

Nicole,

COC2 (soil vapor sampling) needs to be revised. The sample ids 536 and 836 need to be changed to 532 and 832 respectively. I have attached a revised relinquished COC.

Stefanie J. Mysel
Geologist

CDM Smith
111 Academy Way
Suite 150
Irvine, CA 92617
Direct: 949-930-9877
Main: 949-752-5452
Cell: 949-579-0634
Email: myselsj@cdmsmith.com<mailto:myselsj@cdmsmith.com>

From: Mysel, Stefanie
Sent: Tuesday, May 13, 2014 3:45 PM
To: SAEnvEntry@eurofinsus.com
Cc: Burgesser, Todd; Hartman, Pamela; Mysel, Stefanie
Subject: SSFL 05/13/2014 COC

2 coolers were shipped to your lab for delivery tomorrow. These samples are from today's sampling. Samples were collected from the final data gap sampling and the soil vapor sampling. The airbill number for today's shipment is 798848021746. Let me know if you have any questions or issues. Attached is an excel table with sample names, dates and times from today's sampling. We sent 1 field blank today for Wednesday delivery. We will be sending 2 equipment blanks Wednesday for Thursday delivery and 2 equipment blanks on Thursday for Friday delivery.

Regards,

Stefanie

13013/14750001/74G0838-42

Revised COC
NM 5/17/14

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/13/2014
CarrierName: FedEx
AirbillNo: 798848021746

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140513-02
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7470 (Water)	Mercury 7471 (Soil)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc. Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488_09a	Other Analysis/Notes
TB2-051314	5/13/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																																			
SVL-532-SA5B-SB-4.0-5.0MS	5/13/14 08:40	SO	None	9 - Encore	10 day																		X																	
SVL-532-SA5B-SB-4.0-5.0MS	5/13/14 08:40	SO	None	1 - 8 oz glass	10 day																		X																	MS/MSD
SVL-832-SA5B-SB-4.0-5.0	5/13/14 08:45	SO	None	3 - Encore	10 day																		X																	Soil Moisture. MS/MSD
SVL-832-SA5B-SB-4.0-5.0	5/13/14 08:45	SO	None	1 - 4 oz glass	10 day																		X																	Soil Moisture

Special Instructions:

Sampler: Rob Ellis

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Stephanie Myers	5/13/2014	1600									

COC Rev 3

COC: 20140513-02, Page 1 of 1

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 14419

Group Number(s): ~~1474152~~ 1475001

Client: CDM

Corr 5/15/14

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/14/2014 9:50
Number of Packages:	2	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Brandy Barclay (2299) at 11:13 on 05/14/2014

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT146	1.5	DT	Wet	Y	Bagged	N	N
2	DT146	0.8	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 09, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/17/2014
Group Number: 1475119
SDG: PH181
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB-051614 Water	7467784
SVL-504-SA8-SB-2.0-2.5 Soil	7467785
SVL-519-SA8-SB-7.5-8.0 Soil	7467786

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: TB-051614 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7467784
LL Group # 1475119
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/16/2014 08:00 by RE

Submitted: 05/17/2014 09:15
Reported: 06/09/2014 12:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB516 SDG#: PH181-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	5	U	5	0.5	1
10335	Benzene	71-43-2	5	U	5	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	5	U	5	0.5	1
10335	Bromoform	75-25-2	5	U	5	0.5	1
10335	Bromomethane	74-83-9	5	U	5	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	5	U	5	0.5	1
10335	Chlorobenzene	108-90-7	5	U	5	0.5	1
10335	Chloroethane	75-00-3	5	U	5	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	5	U	5	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	5	U	5	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	5	U	5	0.5	1
10335	1,2-Dibromoethane	106-93-4	5	U	5	0.5	1
10335	Dibromomethane	74-95-3	5	U	5	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	5	U	5	0.5	1
10335	1,1-Dichloroethane	75-34-3	5	U	5	0.5	1
10335	1,2-Dichloroethane	107-06-2	5	U	5	0.5	1
10335	1,1-Dichloroethene	75-35-4	5	U	5	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.5	1
10335	1,2-Dichloropropane	78-87-5	5	U	5	0.5	1
10335	1,3-Dichloropropane	142-28-9	5	U	5	0.5	1
10335	2,2-Dichloropropane	594-20-7	5	U	5	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.5	1
10335	Ethyl t-butyl ether	637-92-3	5	U	5	0.5	1
10335	Ethylbenzene	100-41-4	5	U	5	0.5	1
10335	Freon 113	76-13-1	5	U	5	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: TB-051614 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7467784
LL Group # 1475119
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/16/2014 08:00 by RE

Submitted: 05/17/2014 09:15
Reported: 06/09/2014 12:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB516 SDG#: PH181-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	5	U	5	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	5	U	5	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	5	U	5	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.5	1
10335	Tetrachloroethene	127-18-4	5	U	5	0.5	1
10335	Toluene	108-88-3	5	U	5	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	5	U	5	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	5	U	5	0.5	1
10335	Trichloroethene	79-01-6	5	U	5	0.5	1
10335	Trichlorofluoromethane	75-69-4	5	U	5	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	5	U	5	0.5	1
10335	m+p-Xylene	179601-23-1	5	U	5	0.5	1
10335	o-Xylene	95-47-6	5	U	5	0.5	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: chlorotrifluoroethene.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141392AA	05/20/2014 01:06	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141392AA	05/20/2014 01:06	Kevin A Sposito	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-504-SA8-SB-2.0-2.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7467785
LL Group # 1475119
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/16/2014 10:00 by RE

Submitted: 05/17/2014 09:15
Reported: 06/09/2014 12:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

504-- SDG#: PH181-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	21	U	21	7	0.97
10237	Acrolein	107-02-8	100	U	100	21	0.97
10237	Acrylonitrile	107-13-1	21	U	21	4	0.97
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.97
10237	Benzene	71-43-2	5	U	5	0.5	0.97
10237	Bromobenzene	108-86-1	5	U	5	1	0.97
10237	Bromochloromethane	74-97-5	5	U	5	1	0.97
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.97
10237	Bromoform	75-25-2	5	U	5	1	0.97
10237	Bromomethane	74-83-9	5	U	5	2	0.97
10237	2-Butanone	78-93-3	10	U	10	4	0.97
10237	t-Butyl alcohol	75-65-0	52	U	52	21	0.97
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.97
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.97
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.97
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.97
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.97
10237	Chlorobenzene	108-90-7	5	U	5	1	0.97
10237	Chloroethane	75-00-3	5	U	5	2	0.97
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.97
10237	Chloroform	67-66-3	5	U	5	1	0.97
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.97
10237	Chloromethane	74-87-3	5	U	5	2	0.97
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.97
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.97
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.97
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.97
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.97
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.97
10237	Dibromomethane	74-95-3	5	U	5	1	0.97
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.97
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.97
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.97
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.97
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.97
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.97
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.97
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.97
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.97
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.97
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.97
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.97
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.97
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.97
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.97
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.97
10237	Ethylbenzene	100-41-4	5	U	5	1	0.97
10237	Freon 113	76-13-1	5	U	5	2	0.97
10237	Freon 133a	75-88-7	5	U	5	2	0.97
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.97
10237	2-Hexanone	591-78-6	10	U	10	3	0.97

*=This limit was used in the evaluation of the final result

Sample Description: SVL-504-SA8-SB-2.0-2.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7467785
LL Group # 1475119
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/16/2014 10:00 by RE

Submitted: 05/17/2014 09:15
Reported: 06/09/2014 12:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

504-- SDG#: PH181-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.97
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.97
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.97
10237	Methyl Iodide	74-88-4	5	U	5	3	0.97
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.97
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.97
10237	Methylene Chloride	75-09-2	5	U	5	2	0.97
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.97
10237	Styrene	100-42-5	5	U	5	1	0.97
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.97
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.97
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.97
10237	Toluene	108-88-3	5	U	5	1	0.97
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.97
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.97
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.97
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.97
10237	Trichloroethene	79-01-6	5	U	5	1	0.97
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.97
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.97
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.97
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.97
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.97
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.97
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.97
10237	o-Xylene	95-47-6	5	U	5	1	0.97
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	7.4		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141431AA	05/23/2014 20:17	Christopher G Torres	0.97
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201413734527	05/17/2014 14:39	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-504-SA8-SB-2.0-2.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7467785
LL Group # 1475119
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/16/2014 10:00 by RE

Submitted: 05/17/2014 09:15
Reported: 06/09/2014 12:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

504-- SDG#: PH181-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201413734527	05/17/2014 14:39	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201413734527	05/17/2014 14:35	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14141162401B	05/21/2014 19:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-519-SA8-SB-7.5-8.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7467786
LL Group # 1475119
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/16/2014 11:40 by RE

Submitted: 05/17/2014 09:15
Reported: 06/09/2014 12:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

519-- SDG#: PH181-03*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	22	U	22	8	1.03
10237	Acrolein	107-02-8	110	U	110	22	1.03
10237	Acrylonitrile	107-13-1	22	U	22	4	1.03
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	1.03
10237	Benzene	71-43-2	5	U	5	0.5	1.03
10237	Bromobenzene	108-86-1	5	U	5	1	1.03
10237	Bromochloromethane	74-97-5	5	U	5	1	1.03
10237	Bromodichloromethane	75-27-4	5	U	5	1	1.03
10237	Bromoform	75-25-2	5	U	5	1	1.03
10237	Bromomethane	74-83-9	5	U	5	2	1.03
10237	2-Butanone	78-93-3	11	U	11	4	1.03
10237	t-Butyl alcohol	75-65-0	54	U	54	22	1.03
10237	n-Butylbenzene	104-51-8	5	U	5	1	1.03
10237	sec-Butylbenzene	135-98-8	5	U	5	1	1.03
10237	tert-Butylbenzene	98-06-6	5	U	5	1	1.03
10237	Carbon Disulfide	75-15-0	5	U	5	1	1.03
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	1.03
10237	Chlorobenzene	108-90-7	5	U	5	1	1.03
10237	Chloroethane	75-00-3	5	U	5	2	1.03
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	1.03
10237	Chloroform	67-66-3	5	U	5	1	1.03
10237	1-Chlorohexane	544-10-5	5	U	5	1	1.03
10237	Chloromethane	74-87-3	5	U	5	2	1.03
10237	2-Chlorotoluene	95-49-8	5	U	5	1	1.03
10237	4-Chlorotoluene	106-43-4	5	U	5	1	1.03
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	1.03
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1.03
10237	Dibromochloromethane	124-48-1	5	U	5	1	1.03
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	1.03
10237	Dibromomethane	74-95-3	5	U	5	1	1.03
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1.03
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1.03
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1.03
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	1.03
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	1.03
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	1.03
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	1.03
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	1.03
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	1.03
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	1.03
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	1.03
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	1.03
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	1.03
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	1.03
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	1.03
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	1.03
10237	Ethylbenzene	100-41-4	5	U	5	1	1.03
10237	Freon 113	76-13-1	5	U	5	2	1.03
10237	Freon 133a	75-88-7	5	U	5	2	1.03
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	1.03
10237	2-Hexanone	591-78-6	11	U	11	3	1.03

*=This limit was used in the evaluation of the final result

Sample Description: SVL-519-SA8-SB-7.5-8.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7467786
LL Group # 1475119
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/16/2014 11:40 by RE

Submitted: 05/17/2014 09:15
Reported: 06/09/2014 12:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

519-- SDG#: PH181-03*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	1.03
10237	Isopropylbenzene	98-82-8	5	U	5	1	1.03
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	1.03
10237	Methyl Iodide	74-88-4	5	U	5	3	1.03
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1.03
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	1.03
10237	Methylene Chloride	75-09-2	5	U	5	2	1.03
10237	n-Propylbenzene	103-65-1	5	U	5	1	1.03
10237	Styrene	100-42-5	5	U	5	1	1.03
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	1.03
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	1.03
10237	Tetrachloroethene	127-18-4	5	U	5	1	1.03
10237	Toluene	108-88-3	5	U	5	1	1.03
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1.03
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1.03
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	1.03
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	1.03
10237	Trichloroethene	79-01-6	5	U	5	1	1.03
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	1.03
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1.03
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1.03
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1.03
10237	Vinyl Acetate	108-05-4	11	U	11	2	1.03
10237	Vinyl Chloride	75-01-4	5	U	5	1	1.03
10237	m+p-Xylene	179601-23-1	5	U	5	1	1.03
10237	o-Xylene	95-47-6	5	U	5	1	1.03
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	4.7		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141431AA	05/23/2014 20:39	Christopher G Torres	1.03
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201413734527	05/17/2014 14:39	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-519-SA8-SB-7.5-8.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7467786
LL Group # 1475119
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/16/2014 11:40 by RE

Submitted: 05/17/2014 09:15
Reported: 06/09/2014 12:59

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

519-- SDG#: PH181-03*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201413734527	05/17/2014 14:39	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201413734527	05/17/2014 14:34	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14141162401B	05/21/2014 19:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475119
Reported: 06/09/14 at 12:59 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B141431AA	Sample number(s): 7467785-7467786								
Acetone	20 U	20.	7	ug/kg	98		41-149		
Acrolein	100 U	100.	20	ug/kg	79		50-137		
Acrylonitrile	20 U	20.	4	ug/kg	87		58-123		
t-Amyl methyl ether	5 U	5.	1	ug/kg	92		63-130		
Benzene	5 U	5.	0.5	ug/kg	97		80-120		
Bromobenzene	5 U	5.	1	ug/kg	105		78-120		
Bromochloromethane	5 U	5.	1	ug/kg	121		75-129		
Bromodichloromethane	5 U	5.	1	ug/kg	102		75-120		
Bromoform	5 U	5.	1	ug/kg	107		70-126		
Bromomethane	5 U	5.	2	ug/kg	109		32-162		
2-Butanone	10 U	10.	4	ug/kg	94		47-136		
t-Butyl alcohol	50 U	50.	20	ug/kg	118		66-133		
n-Butylbenzene	5 U	5.	1	ug/kg	97		72-120		
sec-Butylbenzene	5 U	5.	1	ug/kg	99		69-120		
tert-Butylbenzene	5 U	5.	1	ug/kg	95		75-120		
Carbon Disulfide	5 U	5.	1	ug/kg	90		63-128		
Carbon Tetrachloride	5 U	5.	1	ug/kg	113		69-130		
Chlorobenzene	5 U	5.	1	ug/kg	102		80-120		
Chloroethane	5 U	5.	2	ug/kg	102		17-171		
2-Chloroethyl Vinyl Ether	10 U	10.	2	ug/kg	83		52-134		
Chloroform	5 U	5.	1	ug/kg	113		80-120		
1-Chlorohexane	5 U	5.	1	ug/kg	93		70-130		
Chloromethane	5 U	5.	2	ug/kg	89		56-120		
2-Chlorotoluene	5 U	5.	1	ug/kg	99		78-120		
4-Chlorotoluene	5 U	5.	1	ug/kg	98		79-120		
Chlorotrifluoroethene	5 U	5.	2	ug/kg	64		22-131		
1,2-Dibromo-3-chloropropane	5 U	5.	2	ug/kg	90		50-132		
Dibromochloromethane	5 U	5.	1	ug/kg	104		77-120		
1,2-Dibromoethane	5 U	5.	1	ug/kg	102		80-120		
Dibromomethane	5 U	5.	1	ug/kg	101		75-120		
1,2-Dichlorobenzene	5 U	5.	1	ug/kg	102		80-120		
1,3-Dichlorobenzene	5 U	5.	1	ug/kg	104		80-120		
1,4-Dichlorobenzene	5 U	5.	1	ug/kg	102		80-120		
Dichlorodifluoromethane	5 U	5.	2	ug/kg	96		26-137		
1,1-Dichloroethane	5 U	5.	1	ug/kg	101		71-122		
1,2-Dichloroethane	5 U	5.	1	ug/kg	120		66-136		
1,1-Dichloroethene	5 U	5.	1	ug/kg	109		73-129		
cis-1,2-Dichloroethene	5 U	5.	1	ug/kg	101		80-120		
trans-1,2-Dichloroethene	5 U	5.	1	ug/kg	111		79-120		
1,2-Dichloropropane	5 U	5.	1	ug/kg	92		77-120		
1,3-Dichloropropane	5 U	5.	1	ug/kg	97		73-120		
2,2-Dichloropropane	5 U	5.	1	ug/kg	95		72-123		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475119
Reported: 06/09/14 at 12:59 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/kg	102		77-120		
cis-1,3-Dichloropropene	5	U	5.	1	ug/kg	91		74-120		
trans-1,3-Dichloropropene	5	U	5.	1	ug/kg	93		69-120		
Ethyl t-butyl ether	5	U	5.	1	ug/kg	90		59-134		
Ethylbenzene	5	U	5.	1	ug/kg	102		80-120		
Freon 113	5	U	5.	2	ug/kg	97		64-137		
Freon 133a	5	U	5.	2	ug/kg	98		78-120		
Hexachlorobutadiene	5	U	5.	2	ug/kg	118		46-130		
2-Hexanone	10	U	10.	3	ug/kg	83		40-129		
di-Isopropyl ether	5	U	5.	1	ug/kg	93		68-128		
Isopropylbenzene	5	U	5.	1	ug/kg	106		76-120		
p-Isopropyltoluene	5	U	5.	1	ug/kg	92		69-120		
Methyl Iodide	5	U	5.	3	ug/kg	116		72-130		
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/kg	102		69-126		
4-Methyl-2-pentanone	10	U	10.	3	ug/kg	85		43-133		
Methylene Chloride	5	U	5.	2	ug/kg	105		80-124		
n-Propylbenzene	5	U	5.	1	ug/kg	100		77-120		
Styrene	5	U	5.	1	ug/kg	103		76-120		
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/kg	106		80-120		
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/kg	91		71-123		
Tetrachloroethene	5	U	5.	1	ug/kg	107		78-120		
Toluene	5	U	5.	1	ug/kg	96		80-120		
1,2,3-Trichlorobenzene	5	U	5.	1	ug/kg	107		64-120		
1,2,4-Trichlorobenzene	5	U	5.	1	ug/kg	102		68-120		
1,1,1-Trichloroethane	5	U	5.	1	ug/kg	100		63-135		
1,1,2-Trichloroethane	5	U	5.	1	ug/kg	104		80-120		
Trichloroethene	5	U	5.	1	ug/kg	105		80-120		
Trichlorofluoromethane	5	U	5.	2	ug/kg	105		58-133		
1,2,3-Trichloropropane	5	U	5.	1	ug/kg	101		71-123		
1,2,4-Trimethylbenzene	5	U	5.	1	ug/kg	100		79-120		
1,3,5-Trimethylbenzene	5	U	5.	1	ug/kg	103		78-120		
Vinyl Acetate	10	U	10.	2	ug/kg	71		40-127		
Vinyl Chloride	5	U	5.	1	ug/kg	93		59-120		
m+p-Xylene	5	U	5.	1	ug/kg	101		80-120		
o-Xylene	5	U	5.	1	ug/kg	99		80-120		
Batch number: Y141392AA	Sample number(s): 7467784									
Acetone	20	U	20.	6	ug/l	84	84	43-149	1	30
Acrolein	100 U		100.	40	ug/l	87	87	52-129	1	30
Acrylonitrile	20	U	20.	4	ug/l	85	88	62-120	4	30
t-Amyl methyl ether	5	U	5.	0.5	ug/l	103	104	75-120	1	30
Benzene	5	U	5.	0.5	ug/l	102	101	78-120	1	30
Bromobenzene	5	U	5.	1	ug/l	98	97	80-120	2	30
Bromochloromethane	5	U	5.	1	ug/l	89	89	80-121	0	30
Bromodichloromethane	5	U	5.	0.5	ug/l	92	92	73-120	0	30
Bromoform	5	U	5.	0.5	ug/l	83	82	61-120	1	30
Bromomethane	5	U	5.	0.5	ug/l	93	94	58-120	1	30
2-Butanone	10	U	10.	3	ug/l	91	92	54-133	1	30
t-Butyl alcohol	50	U	50.	5	ug/l	99	100	75-120	1	30
n-Butylbenzene	5	U	5.	1	ug/l	95	95	68-120	1	30
sec-Butylbenzene	5	U	5.	1	ug/l	98	97	80-120	0	30
tert-Butylbenzene	5	U	5.	1	ug/l	97	95	73-120	1	30
Carbon Disulfide	5	U	5.	1	ug/l	89	91	58-126	2	30
Carbon Tetrachloride	5	U	5.	0.5	ug/l	101	101	74-130	0	30
Chlorobenzene	5	U	5.	0.5	ug/l	100	100	80-120	0	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475119
Reported: 06/09/14 at 12:59 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroethane	5 U	5.	0.5	ug/l	83	83	56-120	0	30
2-Chloroethyl Vinyl Ether	10 U	10.	2	ug/l	98	99	54-126	1	30
Chloroform	5 U	5.	0.5	ug/l	100	100	80-122	0	30
1-Chlorohexane	5 U	5.	1	ug/l	105	104	80-120	0	30
Chloromethane	5 U	5.	0.5	ug/l	97	97	63-120	0	30
2-Chlorotoluene	5 U	5.	1	ug/l	98	98	80-120	1	30
4-Chlorotoluene	5 U	5.	1	ug/l	99	97	80-120	2	30
Chlorotrifluoroethene	5 U	5.	2	ug/l	42*	42*	47-120	0	30
1,2-Dibromo-3-chloropropane	5 U	5.	2	ug/l	93	94	56-120	2	30
Dibromochloromethane	5 U	5.	0.5	ug/l	93	94	72-120	1	30
1,2-Dibromoethane	5 U	5.	0.5	ug/l	101	100	76-120	1	30
Dibromomethane	5 U	5.	0.5	ug/l	96	97	80-120	1	30
1,2-Dichlorobenzene	5 U	5.	1	ug/l	99	98	80-120	1	30
1,3-Dichlorobenzene	5 U	5.	1	ug/l	99	98	80-120	2	30
1,4-Dichlorobenzene	5 U	5.	1	ug/l	100	97	80-120	2	30
Dichlorodifluoromethane	5 U	5.	0.5	ug/l	106	105	48-132	0	30
1,1-Dichloroethane	5 U	5.	0.5	ug/l	99	99	80-120	1	30
1,2-Dichloroethane	5 U	5.	0.5	ug/l	99	99	65-135	0	30
1,1-Dichloroethene	5 U	5.	0.5	ug/l	102	104	76-124	1	30
cis-1,2-Dichloroethene	5 U	5.	0.5	ug/l	101	101	80-120	0	30
trans-1,2-Dichloroethene	5 U	5.	0.5	ug/l	104	104	80-120	0	30
1,2-Dichloropropane	5 U	5.	0.5	ug/l	101	100	80-120	1	30
1,3-Dichloropropane	5 U	5.	0.5	ug/l	98	98	80-120	0	30
2,2-Dichloropropane	5 U	5.	0.5	ug/l	100	100	67-124	0	30
1,1-Dichloropropene	5 U	5.	1	ug/l	108	108	80-120	0	30
cis-1,3-Dichloropropene	5 U	5.	0.5	ug/l	96	95	80-120	0	30
trans-1,3-Dichloropropene	5 U	5.	0.5	ug/l	95	95	76-120	0	30
Ethyl t-butyl ether	5 U	5.	0.5	ug/l	102	103	74-120	1	30
Ethylbenzene	5 U	5.	0.5	ug/l	99	98	79-120	1	30
Freon 113	5 U	5.	2	ug/l	109	110	67-127	0	30
Freon 133a	5 U	5.	2	ug/l	85	87	46-152	2	30
Hexachlorobutadiene	5 U	5.	2	ug/l	86	84	51-125	2	30
2-Hexanone	10 U	10.	3	ug/l	92	92	44-126	0	30
di-Isopropyl ether	5 U	5.	0.5	ug/l	106	106	65-120	1	30
Isopropylbenzene	5 U	5.	1	ug/l	98	98	77-120	1	30
p-Isopropyltoluene	5 U	5.	1	ug/l	95	94	80-120	1	30
Methyl Iodide	5 U	5.	0.5	ug/l	106	106	75-128	0	30
Methyl Tertiary Butyl Ether	5 U	5.	0.5	ug/l	102	102	75-120	0	30
4-Methyl-2-pentanone	10 U	10.	3	ug/l	91	92	51-124	0	30
Methylene Chloride	5 U	5.	2	ug/l	100	101	80-120	1	30
n-Propylbenzene	5 U	5.	1	ug/l	99	99	80-120	0	30
Styrene	5 U	5.	1	ug/l	99	99	80-120	0	30
1,1,1,2-Tetrachloroethane	5 U	5.	0.5	ug/l	99	98	80-120	1	30
1,1,2,2-Tetrachloroethane	5 U	5.	0.5	ug/l	99	98	70-120	1	30
Tetrachloroethene	5 U	5.	0.5	ug/l	99	99	80-120	0	30
Toluene	5 U	5.	0.5	ug/l	101	101	80-120	0	30
1,2,3-Trichlorobenzene	5 U	5.	1	ug/l	96	95	58-126	1	30
1,2,4-Trichlorobenzene	5 U	5.	1	ug/l	96	95	65-120	0	30
1,1,1-Trichloroethane	5 U	5.	0.5	ug/l	92	93	66-126	1	30
1,1,2-Trichloroethane	5 U	5.	0.5	ug/l	97	98	80-120	1	30
Trichloroethene	5 U	5.	0.5	ug/l	103	103	80-120	0	30
Trichlorofluoromethane	5 U	5.	0.5	ug/l	108	107	65-130	2	30
1,2,3-Trichloropropane	5 U	5.	1	ug/l	97	96	76-120	1	30
1,2,4-Trimethylbenzene	5 U	5.	1	ug/l	100	98	74-120	2	30
1,3,5-Trimethylbenzene	5 U	5.	1	ug/l	99	98	74-120	1	30
Vinyl Acetate	10 U	10.	2	ug/l	79	80	56-135	1	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475119
Reported: 06/09/14 at 12:59 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vinyl Chloride	5	U	5.	0.5	ug/l	102	103	63-120	1	30
m+p-Xylene	5	U	5.	0.5	ug/l	98	98	80-120	0	30
o-Xylene	5	U	5.	0.5	ug/l	99	99	80-120	0	30
Batch number: 14141162401B	Sample number(s): 7467785-7467786									
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: B141431AA	Sample number(s): 7467785-7467786 UNSPK: P466839								
Acetone	129	113	31-195	11	30				
Acrolein	67	81	10-165	21	30				
Acrylonitrile	96	82	48-139	13	30				
t-Amyl methyl ether	111	94	50-132	14	30				
Benzene	123	101	55-143	17	30				
Bromobenzene	130	109	43-139	15	30				
Bromochloromethane	127	120	60-137	3	30				
Bromodichloromethane	126	104	53-136	17	30				
Bromoform	131	105	50-144	20	30				
Bromomethane	120	124	42-168	6	30				
2-Butanone	110	95	37-163	13	30				
t-Butyl alcohol	117	115	47-153	0	30				
n-Butylbenzene	117	101	30-146	12	30				
sec-Butylbenzene	131	102	33-157	22	30				
tert-Butylbenzene	125	108	41-152	13	30				
Carbon Disulfide	118	94	48-146	20	30				
Carbon Tetrachloride	152	123	51-165	18	30				
Chlorobenzene	130	102	49-135	22	30				
Chloroethane	113	117	39-152	6	30				
2-Chloroethyl Vinyl Ether	76	92	32-139	21	30				
Chloroform	144*	119	61-142	17	30				
1-Chlorohexane	104	98	70-130	4	30				
Chloromethane	98	99	36-143	4	30				
2-Chlorotoluene	123	104	42-146	14	30				
4-Chlorotoluene	122	104	39-145	13	30				
Chlorotrifluoroethene	72	76	70-130	3	30				
1,2-Dibromo-3-chloropropane	98	90	34-165	7	30				
Dibromochloromethane	129*	105	51-128	18	30				
1,2-Dibromoethane	122	99	54-129	19	30				
Dibromomethane	124	103	57-130	17	30				
1,2-Dichlorobenzene	123	108	36-133	11	30				
1,3-Dichlorobenzene	128	104	34-134	19	30				
1,4-Dichlorobenzene	122	103	35-136	14	30				
Dichlorodifluoromethane	121	122	26-151	3	30				
1,1-Dichloroethane	127	103	63-142	18	30				
1,2-Dichloroethane	149*	120	54-143	19	30				
1,1-Dichloroethene	142	117	61-149	17	30				
cis-1,2-Dichloroethene	128	105	67-135	18	30				

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475119
Reported: 06/09/14 at 12:59 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
trans-1,2-Dichloroethene	140	113	64-144	19	30				
1,2-Dichloropropane	116	97	54-144	16	30				
1,3-Dichloropropane	114	92	51-140	18	30				
2,2-Dichloropropane	129	104	53-147	19	30				
1,1-Dichloropropene	134	110	54-145	17	30				
cis-1,3-Dichloropropene	117	93	45-137	20	30				
trans-1,3-Dichloropropene	113	92	51-134	18	30				
Ethyl t-butyl ether	110	94	58-124	13	30				
Ethylbenzene	131	104	44-141	21	30				
Freon 113	142	115	56-156	18	30				
Freon 133a	101	107	61-131	4	30				
Hexachlorobutadiene	139	115	10-155	17	30				
2-Hexanone	96	81	32-160	15	30				
di-Isopropyl ether	112	94	59-133	15	30				
Isopropylbenzene	136	110	38-144	19	30				
p-Isopropyltoluene	117	100	29-152	13	30				
Methyl Iodide	148*	120	52-139	18	30				
Methyl Tertiary Butyl Ether	121	101	55-129	15	30				
4-Methyl-2-pentanone	100	83	46-139	16	30				
Methylene Chloride	188*	238*	60-149	26	30				
n-Propylbenzene	128	109	39-157	14	30				
Styrene	128	102	35-134	20	30				
1,1,1,2-Tetrachloroethane	134	106	55-139	21	30				
1,1,2,2-Tetrachloroethane	104	89	29-182	13	30				
Tetrachloroethene	151*	122	42-149	19	30				
Toluene	120	100	50-146	16	30				
1,2,3-Trichlorobenzene	111	96	10-140	12	30				
1,2,4-Trichlorobenzene	114	98	10-136	12	30				
1,1,1-Trichloroethane	131	106	52-146	19	30				
1,1,2-Trichloroethane	123	99	58-152	19	30				
Trichloroethene	132	109	53-144	17	30				
Trichlorofluoromethane	127	127	47-163	2	30				
1,2,3-Trichloropropane	120	98	36-180	18	30				
1,2,4-Trimethylbenzene	127	108	37-149	14	30				
1,3,5-Trimethylbenzene	126	110	38-150	11	30				
Vinyl Acetate	30	23	21-139	25	30				
Vinyl Chloride	104	108	50-154	6	30				
m+p-Xylene	129	104	44-137	19	30				
o-Xylene	124	99	42-137	20	30				
Batch number: 14141162401B	Sample number(s): 7467785-7467786					BKG: P466734			
14a Moisture Content by 160.3						4.8	5.2	8	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12a Volatile Organics EPA8260B

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475119
Reported: 06/09/14 at 12:59 PM

Surrogate Quality Control

Batch number: B141431AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7467785	112	104	95	95
7467786	112	103	98	97
Blank	110	100	99	97
LCS	108	106	102	105
MS	110	103	101	104
MSD	111	105	97	95
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141392AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7467784	99	100	99	96
Blank	99	100	99	95
LCS	99	102	100	100
LCSD	98	102	101	100
Limits:	86-118	80-120	88-110	86-115

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/16/2014

CarrierName: FedEx

AirbillNo: 770009222264

A-13013
G-1475119
S-7467784

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20140516-01

Cooler #: 1

Lab: Lancaster

Lab Phone: 717-556-7259

Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc. Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
TB-051614	5/16/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																		X																	
SVL-504-SA8-SB-2.0-2.5	5/16/14 10:00	SO	None	3 - Encore	10 day																		X																	
SVL-504-SA8-SB-2.0-2.5	5/16/14 10:00	SO	None	1 - 4 oz glass	10 day																		X																	Soil Moisture
SVL-519-SA8-SB-7.5-8.0	5/16/14 11:40	SO	None	3 - Encore	10 day																		X																	HOLD AFTER EXTRACTION.
SVL-519-SA8-SB-7.5-8.0	5/16/14 11:40	SO	None	1 - 4 oz glass	10 day																		X																	Soil Moisture.

Special Instructions:

Sampler: Rob Ellis

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Stephanie Lypel	05/16/14	1300									
										5/17/14	0915

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Sample Administration Receipt Documentation Log

Doc Log ID: 14806

Group Number(s): 1475119

Client: CDM Smith

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/17/2014 9:15
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	3
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	N/A		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Joseph Gruber (5200) at 09:34 on 05/17/2014

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT131	0.8	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Nicole Maljovec

From: Mysel, Stefanie <MyselSJ@cdmsmith.com>
Sent: Tuesday, May 20, 2014 7:03 PM
To: Nicole Maljovec
Cc: Burgesser, Todd; Hartman, Pamela; Zakowski, Cherie; Mysel, Stefanie
Subject: SSFL samples on hold

Nicole,

We just found out that we aren't holding any samples so all the samples we requested to be put on hold last week and this week we need you to analyze. Thanks.

Stefanie J. Mysel
Geologist

CDM Smith
111 Academy Way
Suite 150
Irvine, CA 92617
Direct: 949-930-9877
Main: 949-752-5452
Cell: 949-579-0634
Email: myselsj@cdmsmith.com<mailto:myselsj@cdmsmith.com>

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

May 28, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/15/2014
Group Number: 1475281
SDG: PH182
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SVL-521-SA5B-SB-3.0-3.5 Soil	7468635
TB2-051414 Water	7468636
SVL-543-SA5B-SB-2.0-2.5 Soil	7468637

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: SVL-521-SA5B-SB-3.0-3.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7468635
LL Group # 1475281
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 09:20 by RE

Submitted: 05/15/2014 10:00
Reported: 05/28/2014 13:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

521-- SDG#: PH182-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	20	U	20	7	0.95
10237	Acrolein	107-02-8	99	U	99	20	0.95
10237	Acrylonitrile	107-13-1	20	U	20	4	0.95
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.95
10237	Benzene	71-43-2	5	U	5	0.5	0.95
10237	Bromobenzene	108-86-1	5	U	5	1	0.95
10237	Bromochloromethane	74-97-5	5	U	5	1	0.95
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.95
10237	Bromoform	75-25-2	5	U	5	1	0.95
10237	Bromomethane	74-83-9	5	U	5	2	0.95
10237	2-Butanone	78-93-3	10	U	10	4	0.95
10237	t-Butyl alcohol	75-65-0	49	U	49	20	0.95
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.95
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.95
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.95
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.95
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.95
10237	Chlorobenzene	108-90-7	5	U	5	1	0.95
10237	Chloroethane	75-00-3	5	U	5	2	0.95
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.95
10237	Chloroform	67-66-3	5	U	5	1	0.95
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.95
10237	Chloromethane	74-87-3	5	U	5	2	0.95
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.95
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.95
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.95
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.95
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.95
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.95
10237	Dibromomethane	74-95-3	5	U	5	1	0.95
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.95
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.95
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.95
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.95
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.95
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.95
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.95
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.95
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.95
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.95
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.95
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.95
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.95
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.95
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.95
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.95
10237	Ethylbenzene	100-41-4	5	U	5	1	0.95
10237	Freon 113	76-13-1	5	U	5	2	0.95
10237	Freon 133a	75-88-7	5	U	5	2	0.95
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.95
10237	2-Hexanone	591-78-6	10	U	10	3	0.95

*=This limit was used in the evaluation of the final result

Sample Description: SVL-521-SA5B-SB-3.0-3.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7468635
LL Group # 1475281
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 09:20 by RE

Submitted: 05/15/2014 10:00
Reported: 05/28/2014 13:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

521-- SDG#: PH182-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.95
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.95
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.95
10237	Methyl Iodide	74-88-4	5	U	5	3	0.95
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.95
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.95
10237	Methylene Chloride	75-09-2	5	U	5	2	0.95
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.95
10237	Styrene	100-42-5	5	U	5	1	0.95
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.95
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.95
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.95
10237	Toluene	108-88-3	5	U	5	1	0.95
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.95
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.95
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.95
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.95
10237	Trichloroethene	79-01-6	5	U	5	1	0.95
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.95
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.95
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.95
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.95
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.95
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.95
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.95
10237	o-Xylene	95-47-6	5	U	5	1	0.95
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	4.3		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141431AA	05/23/2014 21:01	Christopher G Torres	0.95
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201414034554	05/20/2014 08:31	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-521-SA5B-SB-3.0-3.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7468635
LL Group # 1475281
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 09:20 by RE

Submitted: 05/15/2014 10:00
Reported: 05/28/2014 13:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

521-- SDG#: PH182-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201414034554	05/20/2014 08:31	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201414034554	05/15/2014 19:40	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14141162401B	05/21/2014 19:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: TB2-051414 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7468636
LL Group # 1475281
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 08:00

Submitted: 05/15/2014 10:00
Reported: 05/28/2014 13:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-T-B2 SDG#: PH182-02TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	5	U	5	0.5	1
10335	Benzene	71-43-2	5	U	5	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	5	U	5	0.5	1
10335	Bromoform	75-25-2	5	U	5	0.5	1
10335	Bromomethane	74-83-9	5	U	5	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	5	U	5	0.5	1
10335	Chlorobenzene	108-90-7	5	U	5	0.5	1
10335	Chloroethane	75-00-3	5	U	5	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	5	U	5	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	5	U	5	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	5	U	5	0.5	1
10335	1,2-Dibromoethane	106-93-4	5	U	5	0.5	1
10335	Dibromomethane	74-95-3	5	U	5	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	5	U	5	0.5	1
10335	1,1-Dichloroethane	75-34-3	5	U	5	0.5	1
10335	1,2-Dichloroethane	107-06-2	5	U	5	0.5	1
10335	1,1-Dichloroethene	75-35-4	5	U	5	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.5	1
10335	1,2-Dichloropropane	78-87-5	5	U	5	0.5	1
10335	1,3-Dichloropropane	142-28-9	5	U	5	0.5	1
10335	2,2-Dichloropropane	594-20-7	5	U	5	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.5	1
10335	Ethyl t-butyl ether	637-92-3	5	U	5	0.5	1
10335	Ethylbenzene	100-41-4	5	U	5	0.5	1
10335	Freon 113	76-13-1	5	U	5	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: TB2-051414 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7468636
LL Group # 1475281
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 08:00

Submitted: 05/15/2014 10:00
Reported: 05/28/2014 13:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-T-B2 SDG#: PH182-02TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	5	U	5	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	5	U	5	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	5	U	5	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.5	1
10335	Tetrachloroethene	127-18-4	5	U	5	0.5	1
10335	Toluene	108-88-3	5	U	5	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	5	U	5	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	5	U	5	0.5	1
10335	Trichloroethene	79-01-6	5	U	5	0.5	1
10335	Trichlorofluoromethane	75-69-4	5	U	5	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	5	U	5	0.5	1
10335	m+p-Xylene	179601-23-1	5	U	5	0.5	1
10335	o-Xylene	95-47-6	5	U	5	0.5	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: chlorotrifluoroethene.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141471AA	05/27/2014 11:43	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141471AA	05/27/2014 11:43	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-543-SA5B-SB-2.0-2.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7468637
LL Group # 1475281
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 13:50 by RE

Submitted: 05/15/2014 10:00
Reported: 05/28/2014 13:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

543-- SDG#: PH182-03*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	23	U	23	8	1.04
10237	Acrolein	107-02-8	110	U	110	23	1.04
10237	Acrylonitrile	107-13-1	23	U	23	5	1.04
10237	t-Amyl methyl ether	994-05-8	6	U	6	1	1.04
10237	Benzene	71-43-2	6	U	6	0.6	1.04
10237	Bromobenzene	108-86-1	6	U	6	1	1.04
10237	Bromochloromethane	74-97-5	6	U	6	1	1.04
10237	Bromodichloromethane	75-27-4	6	U	6	1	1.04
10237	Bromoform	75-25-2	6	U	6	1	1.04
10237	Bromomethane	74-83-9	6	U	6	2	1.04
10237	2-Butanone	78-93-3	11	U	11	5	1.04
10237	t-Butyl alcohol	75-65-0	56	U	56	23	1.04
10237	n-Butylbenzene	104-51-8	6	U	6	1	1.04
10237	sec-Butylbenzene	135-98-8	6	U	6	1	1.04
10237	tert-Butylbenzene	98-06-6	6	U	6	1	1.04
10237	Carbon Disulfide	75-15-0	6	U	6	1	1.04
10237	Carbon Tetrachloride	56-23-5	6	U	6	1	1.04
10237	Chlorobenzene	108-90-7	6	U	6	1	1.04
10237	Chloroethane	75-00-3	6	U	6	2	1.04
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	1.04
10237	Chloroform	67-66-3	6	U	6	1	1.04
10237	1-Chlorohexane	544-10-5	6	U	6	1	1.04
10237	Chloromethane	74-87-3	6	U	6	2	1.04
10237	2-Chlorotoluene	95-49-8	6	U	6	1	1.04
10237	4-Chlorotoluene	106-43-4	6	U	6	1	1.04
10237	Chlorotrifluoroethene	79-38-9	6	U	6	2	1.04
10237	1,2-Dibromo-3-chloropropane	96-12-8	6	U	6	2	1.04
10237	Dibromochloromethane	124-48-1	6	U	6	1	1.04
10237	1,2-Dibromoethane	106-93-4	6	U	6	1	1.04
10237	Dibromomethane	74-95-3	6	U	6	1	1.04
10237	1,2-Dichlorobenzene	95-50-1	6	U	6	1	1.04
10237	1,3-Dichlorobenzene	541-73-1	6	U	6	1	1.04
10237	1,4-Dichlorobenzene	106-46-7	6	U	6	1	1.04
10237	Dichlorodifluoromethane	75-71-8	6	U	6	2	1.04
10237	1,1-Dichloroethane	75-34-3	6	U	6	1	1.04
10237	1,2-Dichloroethane	107-06-2	6	U	6	1	1.04
10237	1,1-Dichloroethene	75-35-4	6	U	6	1	1.04
10237	cis-1,2-Dichloroethene	156-59-2	6	U	6	1	1.04
10237	trans-1,2-Dichloroethene	156-60-5	6	U	6	1	1.04
10237	1,2-Dichloropropane	78-87-5	6	U	6	1	1.04
10237	1,3-Dichloropropane	142-28-9	6	U	6	1	1.04
10237	2,2-Dichloropropane	594-20-7	6	U	6	1	1.04
10237	1,1-Dichloropropene	563-58-6	6	U	6	1	1.04
10237	cis-1,3-Dichloropropene	10061-01-5	6	U	6	1	1.04
10237	trans-1,3-Dichloropropene	10061-02-6	6	U	6	1	1.04
10237	Ethyl t-butyl ether	637-92-3	6	U	6	1	1.04
10237	Ethylbenzene	100-41-4	6	U	6	1	1.04
10237	Freon 113	76-13-1	6	U	6	2	1.04
10237	Freon 133a	75-88-7	6	U	6	2	1.04
10237	Hexachlorobutadiene	87-68-3	6	U	6	2	1.04
10237	2-Hexanone	591-78-6	11	U	11	3	1.04

*=This limit was used in the evaluation of the final result

Sample Description: SVL-543-SA5B-SB-2.0-2.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7468637
LL Group # 1475281
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 13:50 by RE

Submitted: 05/15/2014 10:00
Reported: 05/28/2014 13:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

543-- SDG#: PH182-03*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	6	U	6	1	1.04
10237	Isopropylbenzene	98-82-8	6	U	6	1	1.04
10237	p-Isopropyltoluene	99-87-6	6	U	6	1	1.04
10237	Methyl Iodide	74-88-4	6	U	6	3	1.04
10237	Methyl Tertiary Butyl Ether	1634-04-4	6	U	6	0.6	1.04
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	1.04
10237	Methylene Chloride	75-09-2	6	U	6	2	1.04
10237	n-Propylbenzene	103-65-1	6	U	6	1	1.04
10237	Styrene	100-42-5	6	U	6	1	1.04
10237	1,1,1,2-Tetrachloroethane	630-20-6	6	U	6	1	1.04
10237	1,1,2,2-Tetrachloroethane	79-34-5	6	U	6	1	1.04
10237	Tetrachloroethene	127-18-4	6	U	6	1	1.04
10237	Toluene	108-88-3	6	U	6	1	1.04
10237	1,2,3-Trichlorobenzene	87-61-6	6	U	6	1	1.04
10237	1,2,4-Trichlorobenzene	120-82-1	6	U	6	1	1.04
10237	1,1,1-Trichloroethane	71-55-6	6	U	6	1	1.04
10237	1,1,2-Trichloroethane	79-00-5	6	U	6	1	1.04
10237	Trichloroethene	79-01-6	6	U	6	1	1.04
10237	Trichlorofluoromethane	75-69-4	6	U	6	2	1.04
10237	1,2,3-Trichloropropane	96-18-4	6	U	6	1	1.04
10237	1,2,4-Trimethylbenzene	95-63-6	6	U	6	1	1.04
10237	1,3,5-Trimethylbenzene	108-67-8	6	U	6	1	1.04
10237	Vinyl Acetate	108-05-4	11	U	11	2	1.04
10237	Vinyl Chloride	75-01-4	6	U	6	1	1.04
10237	m+p-Xylene	179601-23-1	6	U	6	1	1.04
10237	o-Xylene	95-47-6	6	U	6	1	1.04
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	7.6		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141431AA	05/23/2014 21:23	Christopher G Torres	1.04
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201414034554	05/20/2014 08:31	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-543-SA5B-SB-2.0-2.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7468637
LL Group # 1475281
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/14/2014 13:50 by RE

Submitted: 05/15/2014 10:00
Reported: 05/28/2014 13:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

543-- SDG#: PH182-03*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201414034554	05/20/2014 08:31	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201414034554	05/15/2014 19:42	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14141162401B	05/21/2014 19:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475281
Reported: 05/28/14 at 01:05 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B141431AA	Sample number(s): 7468635,7468637									
Acetone	20	U	20.	7	ug/kg	98		41-149		
Acrolein	100 U		100.	20	ug/kg	79		50-137		
Acrylonitrile	20	U	20.	4	ug/kg	87		58-123		
t-Amyl methyl ether	5	U	5.	1	ug/kg	92		63-130		
Benzene	5	U	5.	0.5	ug/kg	97		80-120		
Bromobenzene	5	U	5.	1	ug/kg	105		78-120		
Bromochloromethane	5	U	5.	1	ug/kg	121		75-129		
Bromodichloromethane	5	U	5.	1	ug/kg	102		75-120		
Bromoform	5	U	5.	1	ug/kg	107		70-126		
Bromomethane	5	U	5.	2	ug/kg	109		32-162		
2-Butanone	10	U	10.	4	ug/kg	94		47-136		
t-Butyl alcohol	50	U	50.	20	ug/kg	118		66-133		
n-Butylbenzene	5	U	5.	1	ug/kg	97		72-120		
sec-Butylbenzene	5	U	5.	1	ug/kg	99		69-120		
tert-Butylbenzene	5	U	5.	1	ug/kg	95		75-120		
Carbon Disulfide	5	U	5.	1	ug/kg	90		63-128		
Carbon Tetrachloride	5	U	5.	1	ug/kg	113		69-130		
Chlorobenzene	5	U	5.	1	ug/kg	102		80-120		
Chloroethane	5	U	5.	2	ug/kg	102		17-171		
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/kg	83		52-134		
Chloroform	5	U	5.	1	ug/kg	113		80-120		
1-Chlorohexane	5	U	5.	1	ug/kg	93		70-130		
Chloromethane	5	U	5.	2	ug/kg	89		56-120		
2-Chlorotoluene	5	U	5.	1	ug/kg	99		78-120		
4-Chlorotoluene	5	U	5.	1	ug/kg	98		79-120		
Chlorotrifluoroethene	5	U	5.	2	ug/kg	64		22-131		
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/kg	90		50-132		
Dibromochloromethane	5	U	5.	1	ug/kg	104		77-120		
1,2-Dibromoethane	5	U	5.	1	ug/kg	102		80-120		
Dibromomethane	5	U	5.	1	ug/kg	101		75-120		
1,2-Dichlorobenzene	5	U	5.	1	ug/kg	102		80-120		
1,3-Dichlorobenzene	5	U	5.	1	ug/kg	104		80-120		
1,4-Dichlorobenzene	5	U	5.	1	ug/kg	102		80-120		
Dichlorodifluoromethane	5	U	5.	2	ug/kg	96		26-137		
1,1-Dichloroethane	5	U	5.	1	ug/kg	101		71-122		
1,2-Dichloroethane	5	U	5.	1	ug/kg	120		66-136		
1,1-Dichloroethene	5	U	5.	1	ug/kg	109		73-129		
cis-1,2-Dichloroethene	5	U	5.	1	ug/kg	101		80-120		
trans-1,2-Dichloroethene	5	U	5.	1	ug/kg	111		79-120		
1,2-Dichloropropane	5	U	5.	1	ug/kg	92		77-120		
1,3-Dichloropropane	5	U	5.	1	ug/kg	97		73-120		
2,2-Dichloropropane	5	U	5.	1	ug/kg	95		72-123		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475281
Reported: 05/28/14 at 01:05 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/kg	102		77-120		
cis-1,3-Dichloropropene	5	U	5.	1	ug/kg	91		74-120		
trans-1,3-Dichloropropene	5	U	5.	1	ug/kg	93		69-120		
Ethyl t-butyl ether	5	U	5.	1	ug/kg	90		59-134		
Ethylbenzene	5	U	5.	1	ug/kg	102		80-120		
Freon 113	5	U	5.	2	ug/kg	97		64-137		
Freon 133a	5	U	5.	2	ug/kg	98		78-120		
Hexachlorobutadiene	5	U	5.	2	ug/kg	118		46-130		
2-Hexanone	10	U	10.	3	ug/kg	83		40-129		
di-Isopropyl ether	5	U	5.	1	ug/kg	93		68-128		
Isopropylbenzene	5	U	5.	1	ug/kg	106		76-120		
p-Isopropyltoluene	5	U	5.	1	ug/kg	92		69-120		
Methyl Iodide	5	U	5.	3	ug/kg	116		72-130		
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/kg	102		69-126		
4-Methyl-2-pentanone	10	U	10.	3	ug/kg	85		43-133		
Methylene Chloride	5	U	5.	2	ug/kg	105		80-124		
n-Propylbenzene	5	U	5.	1	ug/kg	100		77-120		
Styrene	5	U	5.	1	ug/kg	103		76-120		
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/kg	106		80-120		
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/kg	91		71-123		
Tetrachloroethene	5	U	5.	1	ug/kg	107		78-120		
Toluene	5	U	5.	1	ug/kg	96		80-120		
1,2,3-Trichlorobenzene	5	U	5.	1	ug/kg	107		64-120		
1,2,4-Trichlorobenzene	5	U	5.	1	ug/kg	102		68-120		
1,1,1-Trichloroethane	5	U	5.	1	ug/kg	100		63-135		
1,1,2-Trichloroethane	5	U	5.	1	ug/kg	104		80-120		
Trichloroethene	5	U	5.	1	ug/kg	105		80-120		
Trichlorofluoromethane	5	U	5.	2	ug/kg	105		58-133		
1,2,3-Trichloropropane	5	U	5.	1	ug/kg	101		71-123		
1,2,4-Trimethylbenzene	5	U	5.	1	ug/kg	100		79-120		
1,3,5-Trimethylbenzene	5	U	5.	1	ug/kg	103		78-120		
Vinyl Acetate	10	U	10.	2	ug/kg	71		40-127		
Vinyl Chloride	5	U	5.	1	ug/kg	93		59-120		
m+p-Xylene	5	U	5.	1	ug/kg	101		80-120		
o-Xylene	5	U	5.	1	ug/kg	99		80-120		
Batch number: Y141471AA	Sample number(s): 7468636									
Acetone	20	U	20.	6	ug/l	78	84	43-149	7	30
Acrolein	100 U		100.	40	ug/l	94	89	52-129	4	30
Acrylonitrile	20	U	20.	4	ug/l	77	83	62-120	7	30
t-Amyl methyl ether	5	U	5.	0.5	ug/l	98	99	75-120	1	30
Benzene	5	U	5.	0.5	ug/l	104	105	78-120	1	30
Bromobenzene	5	U	5.	1	ug/l	103	103	80-120	0	30
Bromochloromethane	5	U	5.	1	ug/l	102	103	80-121	0	30
Bromodichloromethane	5	U	5.	0.5	ug/l	99	99	73-120	0	30
Bromoform	5	U	5.	0.5	ug/l	86	85	61-120	1	30
Bromomethane	5	U	5.	0.5	ug/l	104	105	58-120	1	30
2-Butanone	10	U	10.	3	ug/l	72	79	54-133	9	30
t-Butyl alcohol	50	U	50.	5	ug/l	97	103	75-120	7	30
n-Butylbenzene	5	U	5.	1	ug/l	100	100	68-120	0	30
sec-Butylbenzene	5	U	5.	1	ug/l	102	104	80-120	2	30
tert-Butylbenzene	5	U	5.	1	ug/l	100	103	73-120	3	30
Carbon Disulfide	5	U	5.	1	ug/l	69	68	58-126	2	30
Carbon Tetrachloride	5	U	5.	0.5	ug/l	107	109	74-130	2	30
Chlorobenzene	5	U	5.	0.5	ug/l	104	103	80-120	1	30

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475281
Reported: 05/28/14 at 01:05 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroethane	5	U	5.	0.5	ug/l	89	89	56-120	1	30
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/l	102	103	54-126	1	30
Chloroform	5	U	5.	0.5	ug/l	106	107	80-122	1	30
1-Chlorohexane	5	U	5.	1	ug/l	104	105	80-120	1	30
Chloromethane	5	U	5.	0.5	ug/l	118	120	63-120	2	30
2-Chlorotoluene	5	U	5.	1	ug/l	100	101	80-120	1	30
4-Chlorotoluene	5	U	5.	1	ug/l	100	101	80-120	1	30
Chlorotrifluoroethene	5	U	5.	2	ug/l	46*	48	47-120	5	30
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/l	75	83	56-120	10	30
Dibromochloromethane	5	U	5.	0.5	ug/l	101	98	72-120	3	30
1,2-Dibromoethane	5	U	5.	0.5	ug/l	100	101	76-120	1	30
Dibromomethane	5	U	5.	0.5	ug/l	98	99	80-120	1	30
1,2-Dichlorobenzene	5	U	5.	1	ug/l	101	102	80-120	1	30
1,3-Dichlorobenzene	5	U	5.	1	ug/l	101	102	80-120	1	30
1,4-Dichlorobenzene	5	U	5.	1	ug/l	103	103	80-120	1	30
Dichlorodifluoromethane	5	U	5.	0.5	ug/l	115	116	48-132	1	30
1,1-Dichloroethane	5	U	5.	0.5	ug/l	98	99	80-120	1	30
1,2-Dichloroethane	5	U	5.	0.5	ug/l	106	106	65-135	0	30
1,1-Dichloroethene	5	U	5.	0.5	ug/l	112	113	76-124	1	30
cis-1,2-Dichloroethene	5	U	5.	0.5	ug/l	105	106	80-120	1	30
trans-1,2-Dichloroethene	5	U	5.	0.5	ug/l	116	118	80-120	2	30
1,2-Dichloropropane	5	U	5.	0.5	ug/l	101	101	80-120	0	30
1,3-Dichloropropane	5	U	5.	0.5	ug/l	99	99	80-120	0	30
2,2-Dichloropropane	5	U	5.	0.5	ug/l	104	104	67-124	1	30
1,1-Dichloropropene	5	U	5.	1	ug/l	110	110	80-120	1	30
cis-1,3-Dichloropropene	5	U	5.	0.5	ug/l	96	96	80-120	0	30
trans-1,3-Dichloropropene	5	U	5.	0.5	ug/l	95	95	76-120	0	30
Ethyl t-butyl ether	5	U	5.	0.5	ug/l	97	98	74-120	1	30
Ethylbenzene	5	U	5.	0.5	ug/l	102	103	79-120	0	30
Freon 113	5	U	5.	2	ug/l	101	100	67-127	0	30
Freon 133a	5	U	5.	2	ug/l	79	82	46-152	3	30
Hexachlorobutadiene	5	U	5.	2	ug/l	100	98	51-125	2	30
2-Hexanone	10	U	10.	3	ug/l	74	80	44-126	8	30
di-Isopropyl ether	5	U	5.	0.5	ug/l	98	98	65-120	1	30
Isopropylbenzene	5	U	5.	1	ug/l	104	104	77-120	0	30
p-Isopropyltoluene	5	U	5.	1	ug/l	100	101	80-120	1	30
Methyl Iodide	5	U	5.	0.5	ug/l	105	106	75-128	1	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/l	108	108	75-120	0	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	78	84	51-124	6	30
Methylene Chloride	5	U	5.	2	ug/l	116	116	80-120	0	30
n-Propylbenzene	5	U	5.	1	ug/l	102	102	80-120	0	30
Styrene	5	U	5.	1	ug/l	104	103	80-120	0	30
1,1,1,2-Tetrachloroethane	5	U	5.	0.5	ug/l	103	101	80-120	2	30
1,1,2,2-Tetrachloroethane	5	U	5.	0.5	ug/l	89	92	70-120	4	30
Tetrachloroethene	5	U	5.	0.5	ug/l	107	108	80-120	1	30
Toluene	5	U	5.	0.5	ug/l	104	104	80-120	0	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	102	104	58-126	2	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	103	104	65-120	1	30
1,1,1-Trichloroethane	5	U	5.	0.5	ug/l	96	94	66-126	1	30
1,1,2-Trichloroethane	5	U	5.	0.5	ug/l	98	100	80-120	2	30
Trichloroethene	5	U	5.	0.5	ug/l	106	109	80-120	3	30
Trichlorofluoromethane	5	U	5.	0.5	ug/l	117	115	65-130	2	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	89	94	76-120	5	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	103	103	74-120	0	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	102	104	74-120	1	30
Vinyl Acetate	10	U	10.	2	ug/l	74	74	56-135	0	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475281
Reported: 05/28/14 at 01:05 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vinyl Chloride	5	U	5.	0.5	ug/l	111	112	63-120	1	30
m+p-Xylene	5	U	5.	0.5	ug/l	102	102	80-120	0	30
o-Xylene	5	U	5.	0.5	ug/l	102	102	80-120	0	30
Batch number: 14141162401B	Sample number(s): 7468635,7468637									
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: B141431AA	Sample number(s): 7468635,7468637 UNSPK: P466839								
Acetone	129	113	31-195	11	30				
Acrolein	67	81	10-165	21	30				
Acrylonitrile	96	82	48-139	13	30				
t-Amyl methyl ether	111	94	50-132	14	30				
Benzene	123	101	55-143	17	30				
Bromobenzene	130	109	43-139	15	30				
Bromochloromethane	127	120	60-137	3	30				
Bromodichloromethane	126	104	53-136	17	30				
Bromoform	131	105	50-144	20	30				
Bromomethane	120	124	42-168	6	30				
2-Butanone	110	95	37-163	13	30				
t-Butyl alcohol	117	115	47-153	0	30				
n-Butylbenzene	117	101	30-146	12	30				
sec-Butylbenzene	131	102	33-157	22	30				
tert-Butylbenzene	125	108	41-152	13	30				
Carbon Disulfide	118	94	48-146	20	30				
Carbon Tetrachloride	152	123	51-165	18	30				
Chlorobenzene	130	102	49-135	22	30				
Chloroethane	113	117	39-152	6	30				
2-Chloroethyl Vinyl Ether	76	92	32-139	21	30				
Chloroform	144*	119	61-142	17	30				
1-Chlorohexane	104	98	70-130	4	30				
Chloromethane	98	99	36-143	4	30				
2-Chlorotoluene	123	104	42-146	14	30				
4-Chlorotoluene	122	104	39-145	13	30				
Chlorotrifluoroethene	72	76	70-130	3	30				
1,2-Dibromo-3-chloropropane	98	90	34-165	7	30				
Dibromochloromethane	129*	105	51-128	18	30				
1,2-Dibromoethane	122	99	54-129	19	30				
Dibromomethane	124	103	57-130	17	30				
1,2-Dichlorobenzene	123	108	36-133	11	30				
1,3-Dichlorobenzene	128	104	34-134	19	30				
1,4-Dichlorobenzene	122	103	35-136	14	30				
Dichlorodifluoromethane	121	122	26-151	3	30				
1,1-Dichloroethane	127	103	63-142	18	30				
1,2-Dichloroethane	149*	120	54-143	19	30				
1,1-Dichloroethene	142	117	61-149	17	30				
cis-1,2-Dichloroethene	128	105	67-135	18	30				

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475281
Reported: 05/28/14 at 01:05 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
trans-1,2-Dichloroethene	140	113	64-144	19	30				
1,2-Dichloropropane	116	97	54-144	16	30				
1,3-Dichloropropane	114	92	51-140	18	30				
2,2-Dichloropropane	129	104	53-147	19	30				
1,1-Dichloropropene	134	110	54-145	17	30				
cis-1,3-Dichloropropene	117	93	45-137	20	30				
trans-1,3-Dichloropropene	113	92	51-134	18	30				
Ethyl t-butyl ether	110	94	58-124	13	30				
Ethylbenzene	131	104	44-141	21	30				
Freon 113	142	115	56-156	18	30				
Freon 133a	101	107	61-131	4	30				
Hexachlorobutadiene	139	115	10-155	17	30				
2-Hexanone	96	81	32-160	15	30				
di-Isopropyl ether	112	94	59-133	15	30				
Isopropylbenzene	136	110	38-144	19	30				
p-Isopropyltoluene	117	100	29-152	13	30				
Methyl Iodide	148*	120	52-139	18	30				
Methyl Tertiary Butyl Ether	121	101	55-129	15	30				
4-Methyl-2-pentanone	100	83	46-139	16	30				
Methylene Chloride	188*	238*	60-149	26	30				
n-Propylbenzene	128	109	39-157	14	30				
Styrene	128	102	35-134	20	30				
1,1,1,2-Tetrachloroethane	134	106	55-139	21	30				
1,1,2,2-Tetrachloroethane	104	89	29-182	13	30				
Tetrachloroethene	151*	122	42-149	19	30				
Toluene	120	100	50-146	16	30				
1,2,3-Trichlorobenzene	111	96	10-140	12	30				
1,2,4-Trichlorobenzene	114	98	10-136	12	30				
1,1,1-Trichloroethane	131	106	52-146	19	30				
1,1,2-Trichloroethane	123	99	58-152	19	30				
Trichloroethene	132	109	53-144	17	30				
Trichlorofluoromethane	127	127	47-163	2	30				
1,2,3-Trichloropropane	120	98	36-180	18	30				
1,2,4-Trimethylbenzene	127	108	37-149	14	30				
1,3,5-Trimethylbenzene	126	110	38-150	11	30				
Vinyl Acetate	30	23	21-139	25	30				
Vinyl Chloride	104	108	50-154	6	30				
m+p-Xylene	129	104	44-137	19	30				
o-Xylene	124	99	42-137	20	30				
Batch number: 14141162401B	Sample number(s): 7468635,7468637					BKG: P466734			
14a Moisture Content by 160.3						4.8	5.2	8	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12a Volatile Organics EPA8260B

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475281
Reported: 05/28/14 at 01:05 PM

Surrogate Quality Control

Batch number: B141431AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7468635	111	104	98	95
7468637	112	99	97	98
Blank	110	100	99	97
LCS	108	106	102	105
MS	110	103	101	104
MSD	111	105	97	95
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141471AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7468636	99	101	100	96
Blank	101	100	99	96
LCS	101	99	100	100
LCSD	101	101	100	99
Limits:	86-118	80-120	88-110	86-115

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

acct# 13013 Cp# ~~1474671~~ 1475281 Sample# ~~7465088-101~~ 7468635-37

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/14/2014

CarrierName: FedEx

AirbillNo: 798863489721

Amc (3) 5/19/14

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20140514-03

Cooler #: 2

Lab: Lancaster

Lab Phone: 717-556-7259

Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488--09a	Other Analysis/Notes
SVL-521-SA5B-SB-3.0-3.5	5/14/14 09:20	SO	None	3 - Encore	10 day																		X																	
SVL-521-SA5B-SB-3.0-3.5	5/14/14 09:20	SO	None	1 - 4 oz glass	10 day																		X																	Soil Moisture
TB2-051414	5/14/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																		X																	
SVL-543-SA5B-SB-2.0-2.5	5/14/14 13:50	SO	None	3 - Encore	10 day																		X																	
SVL-543-SA5B-SB-2.0-2.5	5/14/14 13:50	SO	None	1 - 4 oz glass	10 day																		X																	Soil Moisture

Special Instructions:

Sampler: Rob Ellis

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Steff Mupellos	5/14/14	1600									
										5/15/14	1200

Soil Vapor

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Sample Administration Receipt Documentation Log

Doc Log ID: 14574

Group Number(s): ~~1774671~~ 1475281

Client: CDM Smith

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/15/2014 10:00
Number of Packages:	2	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	N/A		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Joseph Gruber (5200) at 12:12 on 05/15/2014

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT146	4.1	DT	Wet	Y	Bagged	N	N
2	DT146	0.8	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 09, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/20/2014
Group Number: 1475580
SDG: PH183
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SVL-517-SA8-SB-5.0-6.0 Grab Soil	7470160
SVL-517-SA8-SB-10.0-11.0 Grab Soil	7470161
SVL-517-SA8-SB-15.5-16.5 Grab Soil	7470162
SVL-524-SA8-SB-4.5-5.5 Grab Soil	7470163
SVL-528-SA8-SB-5.0-6.0 Grab Soil	7470164
SVL-528-SA8-SB-11.0-12.0 Grab Soil	7470165
TB1-051914 Water	7470166

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: SVL-517-SA8-SB-5.0-6.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470160
LL Group # 1475580
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 09:00 by VV

Submitted: 05/20/2014 09:45
Reported: 06/09/2014 13:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51750 SDG#: PH183-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	21	U	21	7	0.93
10237	Acrolein	107-02-8	110	U	110	21	0.93
10237	Acrylonitrile	107-13-1	21	U	21	4	0.93
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.93
10237	Benzene	71-43-2	5	U	5	0.5	0.93
10237	Bromobenzene	108-86-1	5	U	5	1	0.93
10237	Bromochloromethane	74-97-5	5	U	5	1	0.93
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.93
10237	Bromoform	75-25-2	5	U	5	1	0.93
10237	Bromomethane	74-83-9	5	U	5	2	0.93
10237	2-Butanone	78-93-3	11	U	11	4	0.93
10237	t-Butyl alcohol	75-65-0	53	U	53	21	0.93
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.93
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.93
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.93
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.93
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.93
10237	Chlorobenzene	108-90-7	5	U	5	1	0.93
10237	Chloroethane	75-00-3	5	U	5	2	0.93
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	0.93
10237	Chloroform	67-66-3	5	U	5	1	0.93
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.93
10237	Chloromethane	74-87-3	5	U	5	2	0.93
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.93
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.93
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.93
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.93
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.93
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.93
10237	Dibromomethane	74-95-3	5	U	5	1	0.93
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.93
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.93
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.93
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.93
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.93
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.93
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.93
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.93
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.93
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.93
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.93
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.93
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.93
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.93
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.93
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.93
10237	Ethylbenzene	100-41-4	5	U	5	1	0.93
10237	Freon 113	76-13-1	5	U	5	2	0.93
10237	Freon 133a	75-88-7	5	U	5	2	0.93
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.93
10237	2-Hexanone	591-78-6	11	U	11	3	0.93

*=This limit was used in the evaluation of the final result

Sample Description: SVL-517-SA8-SB-5.0-6.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470160
LL Group # 1475580
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 09:00 by VV

Submitted: 05/20/2014 09:45
Reported: 06/09/2014 13:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51750 SDG#: PH183-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.93
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.93
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.93
10237	Methyl Iodide	74-88-4	5	U	5	3	0.93
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.93
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	0.93
10237	Methylene Chloride	75-09-2	5	U	5	2	0.93
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.93
10237	Styrene	100-42-5	5	U	5	1	0.93
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.93
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.93
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.93
10237	Toluene	108-88-3	5	U	5	1	0.93
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.93
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.93
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.93
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.93
10237	Trichloroethene	79-01-6	5	U	5	1	0.93
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.93
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.93
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.93
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.93
10237	Vinyl Acetate	108-05-4	11	U	11	2	0.93
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.93
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.93
10237	o-Xylene	95-47-6	5	U	5	1	0.93
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	11.7		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141431AA	05/23/2014 21:45	Christopher G Torres	0.93
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201414034559	05/20/2014 20:14	Lois E Hiltz	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-517-SA8-SB-5.0-6.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470160
LL Group # 1475580
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 09:00 by VV

Submitted: 05/20/2014 09:45
Reported: 06/09/2014 13:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51750 SDG#: PH183-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201414034559	05/20/2014 20:14	Lois E Hiltz	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201414034559	05/20/2014 19:45	Lois E Hiltz	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14142162401A	05/22/2014 20:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-517-SA8-SB-10.0-11.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470161
LL Group # 1475580
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 09:05 by VV

Submitted: 05/20/2014 09:45
Reported: 06/09/2014 13:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51710 SDG#: PH183-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	21	U	21	8	0.89
10237	Acrolein	107-02-8	110	U	110	21	0.89
10237	Acrylonitrile	107-13-1	21	U	21	4	0.89
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.89
10237	Benzene	71-43-2	5	U	5	0.5	0.89
10237	Bromobenzene	108-86-1	5	U	5	1	0.89
10237	Bromochloromethane	74-97-5	5	U	5	1	0.89
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.89
10237	Bromoform	75-25-2	5	U	5	1	0.89
10237	Bromomethane	74-83-9	5	U	5	2	0.89
10237	2-Butanone	78-93-3	11	U	11	4	0.89
10237	t-Butyl alcohol	75-65-0	54	U	54	21	0.89
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.89
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.89
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.89
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.89
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.89
10237	Chlorobenzene	108-90-7	5	U	5	1	0.89
10237	Chloroethane	75-00-3	5	U	5	2	0.89
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	0.89
10237	Chloroform	67-66-3	5	U	5	1	0.89
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.89
10237	Chloromethane	74-87-3	5	U	5	2	0.89
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.89
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.89
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.89
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.89
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.89
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.89
10237	Dibromomethane	74-95-3	5	U	5	1	0.89
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.89
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.89
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.89
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.89
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.89
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.89
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.89
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.89
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.89
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.89
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.89
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.89
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.89
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.89
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.89
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.89
10237	Ethylbenzene	100-41-4	5	U	5	1	0.89
10237	Freon 113	76-13-1	5	U	5	2	0.89
10237	Freon 133a	75-88-7	5	U	5	2	0.89
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.89
10237	2-Hexanone	591-78-6	11	U	11	3	0.89

*=This limit was used in the evaluation of the final result

Sample Description: SVL-517-SA8-SB-10.0-11.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470161
LL Group # 1475580
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 09:05 by VV

Submitted: 05/20/2014 09:45
Reported: 06/09/2014 13:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51710 SDG#: PH183-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.89
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.89
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.89
10237	Methyl Iodide	74-88-4	5	U	5	3	0.89
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.89
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	0.89
10237	Methylene Chloride	75-09-2	5	U	5	2	0.89
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.89
10237	Styrene	100-42-5	5	U	5	1	0.89
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.89
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.89
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.89
10237	Toluene	108-88-3	5	U	5	1	0.89
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.89
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.89
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.89
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.89
10237	Trichloroethene	79-01-6	5	U	5	1	0.89
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.89
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.89
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.89
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.89
10237	Vinyl Acetate	108-05-4	11	U	11	2	0.89
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.89
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.89
10237	o-Xylene	95-47-6	5	U	5	1	0.89
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	17.5		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141431AA	05/23/2014 22:07	Christopher G Torres	0.89
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201414034559	05/20/2014 20:14	Lois E Hiltz	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-517-SA8-SB-10.0-11.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470161
LL Group # 1475580
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 09:05 by VV

Submitted: 05/20/2014 09:45
Reported: 06/09/2014 13:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51710 SDG#: PH183-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201414034559	05/20/2014 20:14	Lois E Hiltz	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201414034559	05/20/2014 19:48	Lois E Hiltz	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14142162401A	05/22/2014 20:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-517-SA8-SB-15.5-16.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470162
LL Group # 1475580
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 09:10 by VV

Submitted: 05/20/2014 09:45
Reported: 06/09/2014 13:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51715 SDG#: PH183-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	21	U	21	7	0.93
10237	Acrolein	107-02-8	110	U	110	21	0.93
10237	Acrylonitrile	107-13-1	21	U	21	4	0.93
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.93
10237	Benzene	71-43-2	5	U	5	0.5	0.93
10237	Bromobenzene	108-86-1	5	U	5	1	0.93
10237	Bromochloromethane	74-97-5	5	U	5	1	0.93
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.93
10237	Bromoform	75-25-2	5	U	5	1	0.93
10237	Bromomethane	74-83-9	5	U	5	2	0.93
10237	2-Butanone	78-93-3	11	U	11	4	0.93
10237	t-Butyl alcohol	75-65-0	53	U	53	21	0.93
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.93
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.93
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.93
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.93
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.93
10237	Chlorobenzene	108-90-7	5	U	5	1	0.93
10237	Chloroethane	75-00-3	5	U	5	2	0.93
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	0.93
10237	Chloroform	67-66-3	5	U	5	1	0.93
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.93
10237	Chloromethane	74-87-3	5	U	5	2	0.93
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.93
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.93
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.93
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.93
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.93
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.93
10237	Dibromomethane	74-95-3	5	U	5	1	0.93
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.93
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.93
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.93
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.93
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.93
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.93
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.93
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.93
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.93
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.93
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.93
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.93
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.93
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.93
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.93
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.93
10237	Ethylbenzene	100-41-4	5	U	5	1	0.93
10237	Freon 113	76-13-1	5	U	5	2	0.93
10237	Freon 133a	75-88-7	5	U	5	2	0.93
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.93
10237	2-Hexanone	591-78-6	11	U	11	3	0.93

*=This limit was used in the evaluation of the final result

Sample Description: SVL-517-SA8-SB-15.5-16.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470162
LL Group # 1475580
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 09:10 by VV

Submitted: 05/20/2014 09:45
Reported: 06/09/2014 13:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51715 SDG#: PH183-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.93
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.93
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.93
10237	Methyl Iodide	74-88-4	5	U	5	3	0.93
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.93
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	0.93
10237	Methylene Chloride	75-09-2	5	U	5	2	0.93
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.93
10237	Styrene	100-42-5	5	U	5	1	0.93
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.93
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.93
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.93
10237	Toluene	108-88-3	5	U	5	1	0.93
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.93
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.93
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.93
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.93
10237	Trichloroethene	79-01-6	5	U	5	1	0.93
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.93
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.93
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.93
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.93
10237	Vinyl Acetate	108-05-4	11	U	11	2	0.93
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.93
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.93
10237	o-Xylene	95-47-6	5	U	5	1	0.93
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	11.7		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141431AA	05/23/2014 22:29	Christopher G Torres	0.93
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201414034559	05/20/2014 20:14	Lois E Hiltz	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-517-SA8-SB-15.5-16.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470162
LL Group # 1475580
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 09:10 by VV

Submitted: 05/20/2014 09:45
Reported: 06/09/2014 13:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51715 SDG#: PH183-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201414034559	05/20/2014 20:14	Lois E Hiltz	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201414034559	05/20/2014 19:51	Lois E Hiltz	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14142162401A	05/22/2014 20:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-524-SA8-SB-4.5-5.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470163
LL Group # 1475580
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 12:20 by VV

Submitted: 05/20/2014 09:45
Reported: 06/09/2014 13:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52445 SDG#: PH183-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	19	U	19	7	0.83
10237	Acrolein	107-02-8	94	U	94	19	0.83
10237	Acrylonitrile	107-13-1	19	U	19	4	0.83
10237	t-Amyl methyl ether	994-05-8	5	U	5	0.9	0.83
10237	Benzene	71-43-2	5	U	5	0.5	0.83
10237	Bromobenzene	108-86-1	5	U	5	0.9	0.83
10237	Bromochloromethane	74-97-5	5	U	5	0.9	0.83
10237	Bromodichloromethane	75-27-4	5	U	5	0.9	0.83
10237	Bromoform	75-25-2	5	U	5	0.9	0.83
10237	Bromomethane	74-83-9	5	U	5	2	0.83
10237	2-Butanone	78-93-3	9	U	9	4	0.83
10237	t-Butyl alcohol	75-65-0	47	U	47	19	0.83
10237	n-Butylbenzene	104-51-8	5	U	5	0.9	0.83
10237	sec-Butylbenzene	135-98-8	5	U	5	0.9	0.83
10237	tert-Butylbenzene	98-06-6	5	U	5	0.9	0.83
10237	Carbon Disulfide	75-15-0	5	U	5	0.9	0.83
10237	Carbon Tetrachloride	56-23-5	5	U	5	0.9	0.83
10237	Chlorobenzene	108-90-7	5	U	5	0.9	0.83
10237	Chloroethane	75-00-3	5	U	5	2	0.83
10237	2-Chloroethyl Vinyl Ether	110-75-8	9	U	9	2	0.83
10237	Chloroform	67-66-3	5	U	5	0.9	0.83
10237	1-Chlorohexane	544-10-5	5	U	5	0.9	0.83
10237	Chloromethane	74-87-3	5	U	5	2	0.83
10237	2-Chlorotoluene	95-49-8	5	U	5	0.9	0.83
10237	4-Chlorotoluene	106-43-4	5	U	5	0.9	0.83
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.83
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.83
10237	Dibromochloromethane	124-48-1	5	U	5	0.9	0.83
10237	1,2-Dibromoethane	106-93-4	5	U	5	0.9	0.83
10237	Dibromomethane	74-95-3	5	U	5	0.9	0.83
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	0.9	0.83
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	0.9	0.83
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	0.9	0.83
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.83
10237	1,1-Dichloroethane	75-34-3	5	U	5	0.9	0.83
10237	1,2-Dichloroethane	107-06-2	5	U	5	0.9	0.83
10237	1,1-Dichloroethene	75-35-4	5	U	5	0.9	0.83
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.9	0.83
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.9	0.83
10237	1,2-Dichloropropane	78-87-5	5	U	5	0.9	0.83
10237	1,3-Dichloropropane	142-28-9	5	U	5	0.9	0.83
10237	2,2-Dichloropropane	594-20-7	5	U	5	0.9	0.83
10237	1,1-Dichloropropene	563-58-6	5	U	5	0.9	0.83
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.9	0.83
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.9	0.83
10237	Ethyl t-butyl ether	637-92-3	5	U	5	0.9	0.83
10237	Ethylbenzene	100-41-4	5	U	5	0.9	0.83
10237	Freon 113	76-13-1	5	U	5	2	0.83
10237	Freon 133a	75-88-7	5	U	5	2	0.83
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.83
10237	2-Hexanone	591-78-6	9	U	9	3	0.83

*=This limit was used in the evaluation of the final result

Sample Description: SVL-524-SA8-SB-4.5-5.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470163
LL Group # 1475580
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 12:20 by VV

Submitted: 05/20/2014 09:45
Reported: 06/09/2014 13:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52445 SDG#: PH183-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	0.9	0.83
10237	Isopropylbenzene	98-82-8	5	U	5	0.9	0.83
10237	p-Isopropyltoluene	99-87-6	5	U	5	0.9	0.83
10237	Methyl Iodide	74-88-4	5	U	5	3	0.83
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.83
10237	4-Methyl-2-pentanone	108-10-1	9	U	9	3	0.83
10237	Methylene Chloride	75-09-2	5	U	5	2	0.83
10237	n-Propylbenzene	103-65-1	5	U	5	0.9	0.83
10237	Styrene	100-42-5	5	U	5	0.9	0.83
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.9	0.83
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.9	0.83
10237	Tetrachloroethene	127-18-4	5	U	5	0.9	0.83
10237	Toluene	108-88-3	5	U	5	0.9	0.83
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	0.9	0.83
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	0.9	0.83
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	0.9	0.83
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	0.9	0.83
10237	Trichloroethene	79-01-6	5	U	5	0.9	0.83
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.83
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	0.9	0.83
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	0.9	0.83
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	0.9	0.83
10237	Vinyl Acetate	108-05-4	9	U	9	2	0.83
10237	Vinyl Chloride	75-01-4	5	U	5	0.9	0.83
10237	m+p-Xylene	179601-23-1	5	U	5	0.9	0.83
10237	o-Xylene	95-47-6	5	U	5	0.9	0.83
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	12.2		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141431AA	05/23/2014 22:50	Christopher G Torres	0.83
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201414034559	05/20/2014 20:15	Lois E Hiltz	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-524-SA8-SB-4.5-5.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470163
LL Group # 1475580
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 12:20 by VV

Submitted: 05/20/2014 09:45
Reported: 06/09/2014 13:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52445 SDG#: PH183-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201414034559	05/20/2014 20:15	Lois E Hiltz	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201414034559	05/20/2014 19:54	Lois E Hiltz	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14142162401A	05/22/2014 20:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-528-SA8-SB-5.0-6.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470164
LL Group # 1475580
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 14:46 by VV

Submitted: 05/20/2014 09:45
Reported: 06/09/2014 13:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52850 SDG#: PH183-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	24	U	24	8	1.07
10237	Acrolein	107-02-8	120	U	120	24	1.07
10237	Acrylonitrile	107-13-1	24	U	24	5	1.07
10237	t-Amyl methyl ether	994-05-8	6	U	6	1	1.07
10237	Benzene	71-43-2	6	U	6	0.6	1.07
10237	Bromobenzene	108-86-1	6	U	6	1	1.07
10237	Bromochloromethane	74-97-5	6	U	6	1	1.07
10237	Bromodichloromethane	75-27-4	6	U	6	1	1.07
10237	Bromoform	75-25-2	6	U	6	1	1.07
10237	Bromomethane	74-83-9	6	U	6	2	1.07
10237	2-Butanone	78-93-3	12	U	12	5	1.07
10237	t-Butyl alcohol	75-65-0	61	U	61	24	1.07
10237	n-Butylbenzene	104-51-8	6	U	6	1	1.07
10237	sec-Butylbenzene	135-98-8	6	U	6	1	1.07
10237	tert-Butylbenzene	98-06-6	6	U	6	1	1.07
10237	Carbon Disulfide	75-15-0	6	U	6	1	1.07
10237	Carbon Tetrachloride	56-23-5	6	U	6	1	1.07
10237	Chlorobenzene	108-90-7	6	U	6	1	1.07
10237	Chloroethane	75-00-3	6	U	6	2	1.07
10237	2-Chloroethyl Vinyl Ether	110-75-8	12	U	12	2	1.07
10237	Chloroform	67-66-3	6	U	6	1	1.07
10237	1-Chlorohexane	544-10-5	6	U	6	1	1.07
10237	Chloromethane	74-87-3	6	U	6	2	1.07
10237	2-Chlorotoluene	95-49-8	6	U	6	1	1.07
10237	4-Chlorotoluene	106-43-4	6	U	6	1	1.07
10237	Chlorotrifluoroethene	79-38-9	6	U	6	2	1.07
10237	1,2-Dibromo-3-chloropropane	96-12-8	6	U	6	2	1.07
10237	Dibromochloromethane	124-48-1	6	U	6	1	1.07
10237	1,2-Dibromoethane	106-93-4	6	U	6	1	1.07
10237	Dibromomethane	74-95-3	6	U	6	1	1.07
10237	1,2-Dichlorobenzene	95-50-1	6	U	6	1	1.07
10237	1,3-Dichlorobenzene	541-73-1	6	U	6	1	1.07
10237	1,4-Dichlorobenzene	106-46-7	6	U	6	1	1.07
10237	Dichlorodifluoromethane	75-71-8	6	U	6	2	1.07
10237	1,1-Dichloroethane	75-34-3	6	U	6	1	1.07
10237	1,2-Dichloroethane	107-06-2	6	U	6	1	1.07
10237	1,1-Dichloroethene	75-35-4	6	U	6	1	1.07
10237	cis-1,2-Dichloroethene	156-59-2	6	U	6	1	1.07
10237	trans-1,2-Dichloroethene	156-60-5	6	U	6	1	1.07
10237	1,2-Dichloropropane	78-87-5	6	U	6	1	1.07
10237	1,3-Dichloropropane	142-28-9	6	U	6	1	1.07
10237	2,2-Dichloropropane	594-20-7	6	U	6	1	1.07
10237	1,1-Dichloropropene	563-58-6	6	U	6	1	1.07
10237	cis-1,3-Dichloropropene	10061-01-5	6	U	6	1	1.07
10237	trans-1,3-Dichloropropene	10061-02-6	6	U	6	1	1.07
10237	Ethyl t-butyl ether	637-92-3	6	U	6	1	1.07
10237	Ethylbenzene	100-41-4	6	U	6	1	1.07
10237	Freon 113	76-13-1	6	U	6	2	1.07
10237	Freon 133a	75-88-7	6	U	6	2	1.07
10237	Hexachlorobutadiene	87-68-3	6	U	6	2	1.07
10237	2-Hexanone	591-78-6	12	U	12	4	1.07

*=This limit was used in the evaluation of the final result

Sample Description: SVL-528-SA8-SB-5.0-6.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470164
LL Group # 1475580
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 14:46 by VV

Submitted: 05/20/2014 09:45
Reported: 06/09/2014 13:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52850 SDG#: PH183-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	6	U	6	1	1.07
10237	Isopropylbenzene	98-82-8	6	U	6	1	1.07
10237	p-Isopropyltoluene	99-87-6	6	U	6	1	1.07
10237	Methyl Iodide	74-88-4	6	U	6	4	1.07
10237	Methyl Tertiary Butyl Ether	1634-04-4	6	U	6	0.6	1.07
10237	4-Methyl-2-pentanone	108-10-1	12	U	12	4	1.07
10237	Methylene Chloride	75-09-2	6	U	6	2	1.07
10237	n-Propylbenzene	103-65-1	6	U	6	1	1.07
10237	Styrene	100-42-5	6	U	6	1	1.07
10237	1,1,1,2-Tetrachloroethane	630-20-6	6	U	6	1	1.07
10237	1,1,2,2-Tetrachloroethane	79-34-5	6	U	6	1	1.07
10237	Tetrachloroethene	127-18-4	6	U	6	1	1.07
10237	Toluene	108-88-3	6	U	6	1	1.07
10237	1,2,3-Trichlorobenzene	87-61-6	6	U	6	1	1.07
10237	1,2,4-Trichlorobenzene	120-82-1	6	U	6	1	1.07
10237	1,1,1-Trichloroethane	71-55-6	6	U	6	1	1.07
10237	1,1,2-Trichloroethane	79-00-5	6	U	6	1	1.07
10237	Trichloroethene	79-01-6	6	U	6	1	1.07
10237	Trichlorofluoromethane	75-69-4	6	U	6	2	1.07
10237	1,2,3-Trichloropropane	96-18-4	6	U	6	1	1.07
10237	1,2,4-Trimethylbenzene	95-63-6	6	U	6	1	1.07
10237	1,3,5-Trimethylbenzene	108-67-8	6	U	6	1	1.07
10237	Vinyl Acetate	108-05-4	12	U	12	2	1.07
10237	Vinyl Chloride	75-01-4	6	U	6	1	1.07
10237	m+p-Xylene	179601-23-1	6	U	6	1	1.07
10237	o-Xylene	95-47-6	6	U	6	1	1.07
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	12.0		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141431AA	05/23/2014 23:12	Christopher G Torres	1.07
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201414034559	05/20/2014 20:15	Lois E Hiltz	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-528-SA8-SB-5.0-6.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470164
LL Group # 1475580
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 14:46 by VV

Submitted: 05/20/2014 09:45
Reported: 06/09/2014 13:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52850 SDG#: PH183-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201414034559	05/20/2014 20:15	Lois E Hiltz	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201414034559	05/20/2014 19:56	Lois E Hiltz	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14142162401A	05/22/2014 20:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-528-SA8-SB-11.0-12.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470165
LL Group # 1475580
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 14:50 by VV

Submitted: 05/20/2014 09:45
Reported: 06/09/2014 13:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52811 SDG#: PH183-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	25	U	25	9	1.04
10237	Acrolein	107-02-8	120	U	120	25	1.04
10237	Acrylonitrile	107-13-1	25	U	25	5	1.04
10237	t-Amyl methyl ether	994-05-8	6	U	6	1	1.04
10237	Benzene	71-43-2	6	U	6	0.6	1.04
10237	Bromobenzene	108-86-1	6	U	6	1	1.04
10237	Bromochloromethane	74-97-5	6	U	6	1	1.04
10237	Bromodichloromethane	75-27-4	6	U	6	1	1.04
10237	Bromoform	75-25-2	6	U	6	1	1.04
10237	Bromomethane	74-83-9	6	U	6	2	1.04
10237	2-Butanone	78-93-3	12	U	12	5	1.04
10237	t-Butyl alcohol	75-65-0	62	U	62	25	1.04
10237	n-Butylbenzene	104-51-8	6	U	6	1	1.04
10237	sec-Butylbenzene	135-98-8	6	U	6	1	1.04
10237	tert-Butylbenzene	98-06-6	6	U	6	1	1.04
10237	Carbon Disulfide	75-15-0	6	U	6	1	1.04
10237	Carbon Tetrachloride	56-23-5	6	U	6	1	1.04
10237	Chlorobenzene	108-90-7	6	U	6	1	1.04
10237	Chloroethane	75-00-3	6	U	6	2	1.04
10237	2-Chloroethyl Vinyl Ether	110-75-8	12	U	12	2	1.04
10237	Chloroform	67-66-3	6	U	6	1	1.04
10237	1-Chlorohexane	544-10-5	6	U	6	1	1.04
10237	Chloromethane	74-87-3	6	U	6	2	1.04
10237	2-Chlorotoluene	95-49-8	6	U	6	1	1.04
10237	4-Chlorotoluene	106-43-4	6	U	6	1	1.04
10237	Chlorotrifluoroethene	79-38-9	6	U	6	2	1.04
10237	1,2-Dibromo-3-chloropropane	96-12-8	6	U	6	2	1.04
10237	Dibromochloromethane	124-48-1	6	U	6	1	1.04
10237	1,2-Dibromoethane	106-93-4	6	U	6	1	1.04
10237	Dibromomethane	74-95-3	6	U	6	1	1.04
10237	1,2-Dichlorobenzene	95-50-1	6	U	6	1	1.04
10237	1,3-Dichlorobenzene	541-73-1	6	U	6	1	1.04
10237	1,4-Dichlorobenzene	106-46-7	6	U	6	1	1.04
10237	Dichlorodifluoromethane	75-71-8	6	U	6	2	1.04
10237	1,1-Dichloroethane	75-34-3	6	U	6	1	1.04
10237	1,2-Dichloroethane	107-06-2	6	U	6	1	1.04
10237	1,1-Dichloroethene	75-35-4	6	U	6	1	1.04
10237	cis-1,2-Dichloroethene	156-59-2	6	U	6	1	1.04
10237	trans-1,2-Dichloroethene	156-60-5	6	U	6	1	1.04
10237	1,2-Dichloropropane	78-87-5	6	U	6	1	1.04
10237	1,3-Dichloropropane	142-28-9	6	U	6	1	1.04
10237	2,2-Dichloropropane	594-20-7	6	U	6	1	1.04
10237	1,1-Dichloropropene	563-58-6	6	U	6	1	1.04
10237	cis-1,3-Dichloropropene	10061-01-5	6	U	6	1	1.04
10237	trans-1,3-Dichloropropene	10061-02-6	6	U	6	1	1.04
10237	Ethyl t-butyl ether	637-92-3	6	U	6	1	1.04
10237	Ethylbenzene	100-41-4	6	U	6	1	1.04
10237	Freon 113	76-13-1	6	U	6	2	1.04
10237	Freon 133a	75-88-7	6	U	6	2	1.04
10237	Hexachlorobutadiene	87-68-3	6	U	6	2	1.04
10237	2-Hexanone	591-78-6	12	U	12	4	1.04

*=This limit was used in the evaluation of the final result

Sample Description: SVL-528-SA8-SB-11.0-12.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470165
LL Group # 1475580
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 14:50 by VV

Submitted: 05/20/2014 09:45
Reported: 06/09/2014 13:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52811 SDG#: PH183-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	6	U	6	1	1.04
10237	Isopropylbenzene	98-82-8	6	U	6	1	1.04
10237	p-Isopropyltoluene	99-87-6	6	U	6	1	1.04
10237	Methyl Iodide	74-88-4	6	U	6	4	1.04
10237	Methyl Tertiary Butyl Ether	1634-04-4	6	U	6	0.6	1.04
10237	4-Methyl-2-pentanone	108-10-1	12	U	12	4	1.04
10237	Methylene Chloride	75-09-2	6	U	6	2	1.04
10237	n-Propylbenzene	103-65-1	6	U	6	1	1.04
10237	Styrene	100-42-5	6	U	6	1	1.04
10237	1,1,1,2-Tetrachloroethane	630-20-6	6	U	6	1	1.04
10237	1,1,2,2-Tetrachloroethane	79-34-5	6	U	6	1	1.04
10237	Tetrachloroethene	127-18-4	6	U	6	1	1.04
10237	Toluene	108-88-3	6	U	6	1	1.04
10237	1,2,3-Trichlorobenzene	87-61-6	6	U	6	1	1.04
10237	1,2,4-Trichlorobenzene	120-82-1	6	U	6	1	1.04
10237	1,1,1-Trichloroethane	71-55-6	6	U	6	1	1.04
10237	1,1,2-Trichloroethane	79-00-5	6	U	6	1	1.04
10237	Trichloroethene	79-01-6	6	U	6	1	1.04
10237	Trichlorofluoromethane	75-69-4	6	U	6	2	1.04
10237	1,2,3-Trichloropropane	96-18-4	6	U	6	1	1.04
10237	1,2,4-Trimethylbenzene	95-63-6	6	U	6	1	1.04
10237	1,3,5-Trimethylbenzene	108-67-8	6	U	6	1	1.04
10237	Vinyl Acetate	108-05-4	12	U	12	2	1.04
10237	Vinyl Chloride	75-01-4	6	U	6	1	1.04
10237	m+p-Xylene	179601-23-1	6	U	6	1	1.04
10237	o-Xylene	95-47-6	6	U	6	1	1.04
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	15.6		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141431AA	05/23/2014 23:35	Christopher G Torres	1.04
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201414034559	05/20/2014 20:15	Lois E Hiltz	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-528-SA8-SB-11.0-12.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470165
LL Group # 1475580
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 14:50 by VV

Submitted: 05/20/2014 09:45
Reported: 06/09/2014 13:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52811 SDG#: PH183-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201414034559	05/20/2014 20:15	Lois E Hiltz	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201414034559	05/20/2014 19:59	Lois E Hiltz	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14142162401A	05/22/2014 20:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: TB1-051914 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7470166
LL Group # 1475580
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 08:00

Submitted: 05/20/2014 09:45
Reported: 06/09/2014 13:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

528TB SDG#: PH183-07TB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	5	U	5	0.5	1
10335	Benzene	71-43-2	5	U	5	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	5	U	5	0.5	1
10335	Bromoform	75-25-2	5	U	5	0.5	1
10335	Bromomethane	74-83-9	5	U	5	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	5	U	5	0.5	1
10335	Chlorobenzene	108-90-7	5	U	5	0.5	1
10335	Chloroethane	75-00-3	5	U	5	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	5	U	5	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	5	U	5	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	5	U	5	0.5	1
10335	1,2-Dibromoethane	106-93-4	5	U	5	0.5	1
10335	Dibromomethane	74-95-3	5	U	5	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	5	U	5	0.5	1
10335	1,1-Dichloroethane	75-34-3	5	U	5	0.5	1
10335	1,2-Dichloroethane	107-06-2	5	U	5	0.5	1
10335	1,1-Dichloroethene	75-35-4	5	U	5	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.5	1
10335	1,2-Dichloropropane	78-87-5	5	U	5	0.5	1
10335	1,3-Dichloropropane	142-28-9	5	U	5	0.5	1
10335	2,2-Dichloropropane	594-20-7	5	U	5	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.5	1
10335	Ethyl t-butyl ether	637-92-3	5	U	5	0.5	1
10335	Ethylbenzene	100-41-4	5	U	5	0.5	1
10335	Freon 113	76-13-1	5	U	5	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: TB1-051914 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7470166
LL Group # 1475580
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 08:00

Submitted: 05/20/2014 09:45
Reported: 06/09/2014 13:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

528TB SDG#: PH183-07TB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	5	U	5	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	5	U	5	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	5	U	5	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.5	1
10335	Tetrachloroethene	127-18-4	5	U	5	0.5	1
10335	Toluene	108-88-3	5	U	5	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	5	U	5	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	5	U	5	0.5	1
10335	Trichloroethene	79-01-6	5	U	5	0.5	1
10335	Trichlorofluoromethane	75-69-4	5	U	5	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	5	U	5	0.5	1
10335	m+p-Xylene	179601-23-1	5	U	5	0.5	1
10335	o-Xylene	95-47-6	5	U	5	0.5	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: chlorotrifluoroethene.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141471AA	05/27/2014 12:04	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141471AA	05/27/2014 12:04	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475580
Reported: 06/09/14 at 01:04 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B141431AA	Sample number(s): 7470160-7470165									
Acetone	20	U	20.	7	ug/kg	98		41-149		
Acrolein	100 U		100.	20	ug/kg	79		50-137		
Acrylonitrile	20	U	20.	4	ug/kg	87		58-123		
t-Amyl methyl ether	5	U	5.	1	ug/kg	92		63-130		
Benzene	5	U	5.	0.5	ug/kg	97		80-120		
Bromobenzene	5	U	5.	1	ug/kg	105		78-120		
Bromochloromethane	5	U	5.	1	ug/kg	121		75-129		
Bromodichloromethane	5	U	5.	1	ug/kg	102		75-120		
Bromoform	5	U	5.	1	ug/kg	107		70-126		
Bromomethane	5	U	5.	2	ug/kg	109		32-162		
2-Butanone	10	U	10.	4	ug/kg	94		47-136		
t-Butyl alcohol	50	U	50.	20	ug/kg	118		66-133		
n-Butylbenzene	5	U	5.	1	ug/kg	97		72-120		
sec-Butylbenzene	5	U	5.	1	ug/kg	99		69-120		
tert-Butylbenzene	5	U	5.	1	ug/kg	95		75-120		
Carbon Disulfide	5	U	5.	1	ug/kg	90		63-128		
Carbon Tetrachloride	5	U	5.	1	ug/kg	113		69-130		
Chlorobenzene	5	U	5.	1	ug/kg	102		80-120		
Chloroethane	5	U	5.	2	ug/kg	102		17-171		
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/kg	83		52-134		
Chloroform	5	U	5.	1	ug/kg	113		80-120		
1-Chlorohexane	5	U	5.	1	ug/kg	93		70-130		
Chloromethane	5	U	5.	2	ug/kg	89		56-120		
2-Chlorotoluene	5	U	5.	1	ug/kg	99		78-120		
4-Chlorotoluene	5	U	5.	1	ug/kg	98		79-120		
Chlorotrifluoroethene	5	U	5.	2	ug/kg	64		22-131		
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/kg	90		50-132		
Dibromochloromethane	5	U	5.	1	ug/kg	104		77-120		
1,2-Dibromoethane	5	U	5.	1	ug/kg	102		80-120		
Dibromomethane	5	U	5.	1	ug/kg	101		75-120		
1,2-Dichlorobenzene	5	U	5.	1	ug/kg	102		80-120		
1,3-Dichlorobenzene	5	U	5.	1	ug/kg	104		80-120		
1,4-Dichlorobenzene	5	U	5.	1	ug/kg	102		80-120		
Dichlorodifluoromethane	5	U	5.	2	ug/kg	96		26-137		
1,1-Dichloroethane	5	U	5.	1	ug/kg	101		71-122		
1,2-Dichloroethane	5	U	5.	1	ug/kg	120		66-136		
1,1-Dichloroethene	5	U	5.	1	ug/kg	109		73-129		
cis-1,2-Dichloroethene	5	U	5.	1	ug/kg	101		80-120		
trans-1,2-Dichloroethene	5	U	5.	1	ug/kg	111		79-120		
1,2-Dichloropropane	5	U	5.	1	ug/kg	92		77-120		
1,3-Dichloropropane	5	U	5.	1	ug/kg	97		73-120		
2,2-Dichloropropane	5	U	5.	1	ug/kg	95		72-123		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475580
Reported: 06/09/14 at 01:04 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/kg	102		77-120		
cis-1,3-Dichloropropene	5	U	5.	1	ug/kg	91		74-120		
trans-1,3-Dichloropropene	5	U	5.	1	ug/kg	93		69-120		
Ethyl t-butyl ether	5	U	5.	1	ug/kg	90		59-134		
Ethylbenzene	5	U	5.	1	ug/kg	102		80-120		
Freon 113	5	U	5.	2	ug/kg	97		64-137		
Freon 133a	5	U	5.	2	ug/kg	98		78-120		
Hexachlorobutadiene	5	U	5.	2	ug/kg	118		46-130		
2-Hexanone	10	U	10.	3	ug/kg	83		40-129		
di-Isopropyl ether	5	U	5.	1	ug/kg	93		68-128		
Isopropylbenzene	5	U	5.	1	ug/kg	106		76-120		
p-Isopropyltoluene	5	U	5.	1	ug/kg	92		69-120		
Methyl Iodide	5	U	5.	3	ug/kg	116		72-130		
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/kg	102		69-126		
4-Methyl-2-pentanone	10	U	10.	3	ug/kg	85		43-133		
Methylene Chloride	5	U	5.	2	ug/kg	105		80-124		
n-Propylbenzene	5	U	5.	1	ug/kg	100		77-120		
Styrene	5	U	5.	1	ug/kg	103		76-120		
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/kg	106		80-120		
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/kg	91		71-123		
Tetrachloroethene	5	U	5.	1	ug/kg	107		78-120		
Toluene	5	U	5.	1	ug/kg	96		80-120		
1,2,3-Trichlorobenzene	5	U	5.	1	ug/kg	107		64-120		
1,2,4-Trichlorobenzene	5	U	5.	1	ug/kg	102		68-120		
1,1,1-Trichloroethane	5	U	5.	1	ug/kg	100		63-135		
1,1,2-Trichloroethane	5	U	5.	1	ug/kg	104		80-120		
Trichloroethene	5	U	5.	1	ug/kg	105		80-120		
Trichlorofluoromethane	5	U	5.	2	ug/kg	105		58-133		
1,2,3-Trichloropropane	5	U	5.	1	ug/kg	101		71-123		
1,2,4-Trimethylbenzene	5	U	5.	1	ug/kg	100		79-120		
1,3,5-Trimethylbenzene	5	U	5.	1	ug/kg	103		78-120		
Vinyl Acetate	10	U	10.	2	ug/kg	71		40-127		
Vinyl Chloride	5	U	5.	1	ug/kg	93		59-120		
m+p-Xylene	5	U	5.	1	ug/kg	101		80-120		
o-Xylene	5	U	5.	1	ug/kg	99		80-120		
Batch number: Y141471AA	Sample number(s): 7470166									
Acetone	20	U	20.	6	ug/l	78	84	43-149	7	30
Acrolein	100 U		100.	40	ug/l	94	89	52-129	4	30
Acrylonitrile	20	U	20.	4	ug/l	77	83	62-120	7	30
t-Amyl methyl ether	5	U	5.	0.5	ug/l	98	99	75-120	1	30
Benzene	5	U	5.	0.5	ug/l	104	105	78-120	1	30
Bromobenzene	5	U	5.	1	ug/l	103	103	80-120	0	30
Bromochloromethane	5	U	5.	1	ug/l	102	103	80-121	0	30
Bromodichloromethane	5	U	5.	0.5	ug/l	99	99	73-120	0	30
Bromoform	5	U	5.	0.5	ug/l	86	85	61-120	1	30
Bromomethane	5	U	5.	0.5	ug/l	104	105	58-120	1	30
2-Butanone	10	U	10.	3	ug/l	72	79	54-133	9	30
t-Butyl alcohol	50	U	50.	5	ug/l	97	103	75-120	7	30
n-Butylbenzene	5	U	5.	1	ug/l	100	100	68-120	0	30
sec-Butylbenzene	5	U	5.	1	ug/l	102	104	80-120	2	30
tert-Butylbenzene	5	U	5.	1	ug/l	100	103	73-120	3	30
Carbon Disulfide	5	U	5.	1	ug/l	69	68	58-126	2	30
Carbon Tetrachloride	5	U	5.	0.5	ug/l	107	109	74-130	2	30
Chlorobenzene	5	U	5.	0.5	ug/l	104	103	80-120	1	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475580
Reported: 06/09/14 at 01:04 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroethane	5	U	5.	0.5	ug/l	89	89	56-120	1	30
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/l	102	103	54-126	1	30
Chloroform	5	U	5.	0.5	ug/l	106	107	80-122	1	30
1-Chlorohexane	5	U	5.	1	ug/l	104	105	80-120	1	30
Chloromethane	5	U	5.	0.5	ug/l	118	120	63-120	2	30
2-Chlorotoluene	5	U	5.	1	ug/l	100	101	80-120	1	30
4-Chlorotoluene	5	U	5.	1	ug/l	100	101	80-120	1	30
Chlorotrifluoroethene	5	U	5.	2	ug/l	46*	48	47-120	5	30
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/l	75	83	56-120	10	30
Dibromochloromethane	5	U	5.	0.5	ug/l	101	98	72-120	3	30
1,2-Dibromoethane	5	U	5.	0.5	ug/l	100	101	76-120	1	30
Dibromomethane	5	U	5.	0.5	ug/l	98	99	80-120	1	30
1,2-Dichlorobenzene	5	U	5.	1	ug/l	101	102	80-120	1	30
1,3-Dichlorobenzene	5	U	5.	1	ug/l	101	102	80-120	1	30
1,4-Dichlorobenzene	5	U	5.	1	ug/l	103	103	80-120	1	30
Dichlorodifluoromethane	5	U	5.	0.5	ug/l	115	116	48-132	1	30
1,1-Dichloroethane	5	U	5.	0.5	ug/l	98	99	80-120	1	30
1,2-Dichloroethane	5	U	5.	0.5	ug/l	106	106	65-135	0	30
1,1-Dichloroethene	5	U	5.	0.5	ug/l	112	113	76-124	1	30
cis-1,2-Dichloroethene	5	U	5.	0.5	ug/l	105	106	80-120	1	30
trans-1,2-Dichloroethene	5	U	5.	0.5	ug/l	116	118	80-120	2	30
1,2-Dichloropropane	5	U	5.	0.5	ug/l	101	101	80-120	0	30
1,3-Dichloropropane	5	U	5.	0.5	ug/l	99	99	80-120	0	30
2,2-Dichloropropane	5	U	5.	0.5	ug/l	104	104	67-124	1	30
1,1-Dichloropropene	5	U	5.	1	ug/l	110	110	80-120	1	30
cis-1,3-Dichloropropene	5	U	5.	0.5	ug/l	96	96	80-120	0	30
trans-1,3-Dichloropropene	5	U	5.	0.5	ug/l	95	95	76-120	0	30
Ethyl t-butyl ether	5	U	5.	0.5	ug/l	97	98	74-120	1	30
Ethylbenzene	5	U	5.	0.5	ug/l	102	103	79-120	0	30
Freon 113	5	U	5.	2	ug/l	101	100	67-127	0	30
Freon 133a	5	U	5.	2	ug/l	79	82	46-152	3	30
Hexachlorobutadiene	5	U	5.	2	ug/l	100	98	51-125	2	30
2-Hexanone	10	U	10.	3	ug/l	74	80	44-126	8	30
di-Isopropyl ether	5	U	5.	0.5	ug/l	98	98	65-120	1	30
Isopropylbenzene	5	U	5.	1	ug/l	104	104	77-120	0	30
p-Isopropyltoluene	5	U	5.	1	ug/l	100	101	80-120	1	30
Methyl Iodide	5	U	5.	0.5	ug/l	105	106	75-128	1	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/l	108	108	75-120	0	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	78	84	51-124	6	30
Methylene Chloride	5	U	5.	2	ug/l	116	116	80-120	0	30
n-Propylbenzene	5	U	5.	1	ug/l	102	102	80-120	0	30
Styrene	5	U	5.	1	ug/l	104	103	80-120	0	30
1,1,1,2-Tetrachloroethane	5	U	5.	0.5	ug/l	103	101	80-120	2	30
1,1,2,2-Tetrachloroethane	5	U	5.	0.5	ug/l	89	92	70-120	4	30
Tetrachloroethene	5	U	5.	0.5	ug/l	107	108	80-120	1	30
Toluene	5	U	5.	0.5	ug/l	104	104	80-120	0	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	102	104	58-126	2	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	103	104	65-120	1	30
1,1,1-Trichloroethane	5	U	5.	0.5	ug/l	96	94	66-126	1	30
1,1,2-Trichloroethane	5	U	5.	0.5	ug/l	98	100	80-120	2	30
Trichloroethene	5	U	5.	0.5	ug/l	106	109	80-120	3	30
Trichlorofluoromethane	5	U	5.	0.5	ug/l	117	115	65-130	2	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	89	94	76-120	5	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	103	103	74-120	0	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	102	104	74-120	1	30
Vinyl Acetate	10	U	10.	2	ug/l	74	74	56-135	0	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475580
Reported: 06/09/14 at 01:04 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vinyl Chloride	5	U	5.	0.5	ug/l	111	112	63-120	1	30
m+p-Xylene	5	U	5.	0.5	ug/l	102	102	80-120	0	30
o-Xylene	5	U	5.	0.5	ug/l	102	102	80-120	0	30
Batch number: 14142162401A	Sample number(s): 7470160-7470165									
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: B141431AA	Sample number(s): 7470160-7470165 UNSPK: P466839								
Acetone	129	113	31-195	11	30				
Acrolein	67	81	10-165	21	30				
Acrylonitrile	96	82	48-139	13	30				
t-Amyl methyl ether	111	94	50-132	14	30				
Benzene	123	101	55-143	17	30				
Bromobenzene	130	109	43-139	15	30				
Bromochloromethane	127	120	60-137	3	30				
Bromodichloromethane	126	104	53-136	17	30				
Bromoform	131	105	50-144	20	30				
Bromomethane	120	124	42-168	6	30				
2-Butanone	110	95	37-163	13	30				
t-Butyl alcohol	117	115	47-153	0	30				
n-Butylbenzene	117	101	30-146	12	30				
sec-Butylbenzene	131	102	33-157	22	30				
tert-Butylbenzene	125	108	41-152	13	30				
Carbon Disulfide	118	94	48-146	20	30				
Carbon Tetrachloride	152	123	51-165	18	30				
Chlorobenzene	130	102	49-135	22	30				
Chloroethane	113	117	39-152	6	30				
2-Chloroethyl Vinyl Ether	76	92	32-139	21	30				
Chloroform	144*	119	61-142	17	30				
1-Chlorohexane	104	98	70-130	4	30				
Chloromethane	98	99	36-143	4	30				
2-Chlorotoluene	123	104	42-146	14	30				
4-Chlorotoluene	122	104	39-145	13	30				
Chlorotrifluoroethene	72	76	70-130	3	30				
1,2-Dibromo-3-chloropropane	98	90	34-165	7	30				
Dibromochloromethane	129*	105	51-128	18	30				
1,2-Dibromoethane	122	99	54-129	19	30				
Dibromomethane	124	103	57-130	17	30				
1,2-Dichlorobenzene	123	108	36-133	11	30				
1,3-Dichlorobenzene	128	104	34-134	19	30				
1,4-Dichlorobenzene	122	103	35-136	14	30				
Dichlorodifluoromethane	121	122	26-151	3	30				
1,1-Dichloroethane	127	103	63-142	18	30				
1,2-Dichloroethane	149*	120	54-143	19	30				
1,1-Dichloroethene	142	117	61-149	17	30				
cis-1,2-Dichloroethene	128	105	67-135	18	30				

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475580
Reported: 06/09/14 at 01:04 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
trans-1,2-Dichloroethene	140	113	64-144	19	30				
1,2-Dichloropropane	116	97	54-144	16	30				
1,3-Dichloropropane	114	92	51-140	18	30				
2,2-Dichloropropane	129	104	53-147	19	30				
1,1-Dichloropropene	134	110	54-145	17	30				
cis-1,3-Dichloropropene	117	93	45-137	20	30				
trans-1,3-Dichloropropene	113	92	51-134	18	30				
Ethyl t-butyl ether	110	94	58-124	13	30				
Ethylbenzene	131	104	44-141	21	30				
Freon 113	142	115	56-156	18	30				
Freon 133a	101	107	61-131	4	30				
Hexachlorobutadiene	139	115	10-155	17	30				
2-Hexanone	96	81	32-160	15	30				
di-Isopropyl ether	112	94	59-133	15	30				
Isopropylbenzene	136	110	38-144	19	30				
p-Isopropyltoluene	117	100	29-152	13	30				
Methyl Iodide	148*	120	52-139	18	30				
Methyl Tertiary Butyl Ether	121	101	55-129	15	30				
4-Methyl-2-pentanone	100	83	46-139	16	30				
Methylene Chloride	188*	238*	60-149	26	30				
n-Propylbenzene	128	109	39-157	14	30				
Styrene	128	102	35-134	20	30				
1,1,1,2-Tetrachloroethane	134	106	55-139	21	30				
1,1,2,2-Tetrachloroethane	104	89	29-182	13	30				
Tetrachloroethene	151*	122	42-149	19	30				
Toluene	120	100	50-146	16	30				
1,2,3-Trichlorobenzene	111	96	10-140	12	30				
1,2,4-Trichlorobenzene	114	98	10-136	12	30				
1,1,1-Trichloroethane	131	106	52-146	19	30				
1,1,2-Trichloroethane	123	99	58-152	19	30				
Trichloroethene	132	109	53-144	17	30				
Trichlorofluoromethane	127	127	47-163	2	30				
1,2,3-Trichloropropane	120	98	36-180	18	30				
1,2,4-Trimethylbenzene	127	108	37-149	14	30				
1,3,5-Trimethylbenzene	126	110	38-150	11	30				
Vinyl Acetate	30	23	21-139	25	30				
Vinyl Chloride	104	108	50-154	6	30				
m+p-Xylene	129	104	44-137	19	30				
o-Xylene	124	99	42-137	20	30				
Batch number: 14142162401A Sample number(s): 7470160-7470165 BKG: P470316									
14a Moisture Content by 160.3						13.5	12.4	9	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12a Volatile Organics EPA8260B

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475580
Reported: 06/09/14 at 01:04 PM

Surrogate Quality Control

Batch number: B141431AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7470160	115	109	96	97
7470161	111	102	97	97
7470162	111	99	98	96
7470163	115	105	93	97
7470164	114	105	93	94
7470165	114	100	94	92
Blank	110	100	99	97
LCS	108	106	102	105
MS	110	103	101	104
MSD	111	105	97	95
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141471AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7470166	100	99	99	95
Blank	101	100	99	96
LCS	101	99	100	100
LCSD	101	101	100	99
Limits:	86-118	80-120	88-110	86-115

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Analysis Request/ Environmental Services Chain of Custody

Lancaster Laboratories

For Lancaster Laboratories use only

Acct. # 13013 Group# 147558 Sample # 7470160-66 **COC #** 213661

Please print. Instructions on reverse side correspond with circled numbers.

For Lab Use Only
FSC: _____
SCR#: _____

(1)
Client: CDMSmith Acct. #: _____
Project Name/#: SSFL PWSID #: _____
Project Manager: John Wondolleck P.O.#: _____
Sampler: Van Vathanasia Quote #: _____
Name of state where samples were collected: CA

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 O=Other

(6) Temperature of samples upon receipt (if requested)

(2) Sample Identification	Date Collected	Time Collected	(3) Grab	Composite	Matrix: Soil	Water (☐ Potable ☐ NPDES Check if Applicable)	Other	(4) Total # of Containers	(5) Analyses Requested: VOCs 8260	Soil Moisture		Put on hold after extraction						Remarks
SVL-517-SA8-SB-5.0-6.0	05/19/14	09:00	X		X		4	3	X	X		X						
SVL-517-SA8-SB-10.0-11.0	05/19/14	09:05	X		X		4	3	X	X		X						
SVL-517-SA8-SB-15.5-16.5	05/19/14	09:10	X		X		4	3	X	X		X						
SVL-524-SA8-SB-4.5-5.5	05/19/14	12:20	X		X			4	X	X		X						
SVL-528-SA8-SB-5.0-6.0	05/19/14	14:46	X		X			4	X	X		X						
SVL-528-SA8-SB-11.0-12.0	05/19/14	14:50	X		X			4	X	X		X						
TB1-051914	05/19/14	09:00				X		3	X									

(7) **Turnaround Time Requested** (TAT) (please circle): (Normal) Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed: 10 day
Rush results requested by (please circle): Phone Fax E-mail
Phone #: _____ Fax #: _____
E-mail address: _____

(8) **Data Package Options** (please circle if required)
Type I (validation/NJ Reg)
Type II (Tier II)
Type III (Reduced NJ)
Type IV (CLP SOW)
Type VI (Raw Data Only)
TX TRRP-13
MA MCP CT RCP
Site-specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Internal COC Required? Yes / No _____

SDG Complete? Yes (No)

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
Shyl Mupel	05/19/14	1600			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	5-20-14	945

Nicole Maljovec 13013/1475580/7470160-66

From: Mysel, Stefanie <MyselSJ@cdmsmith.com>
Sent: Tuesday, May 20, 2014 7:03 PM
To: Nicole Maljovec
Cc: Burgesser, Todd; Hartman, Pamela; Zakowski, Cherie; Mysel, Stefanie
Subject: SSFL samples on hold

Nicole,

We just found out that we aren't holding any samples so all the samples we requested to be put on hold last week and this week we need you to analyze. Thanks.

Stefanie J. Mysel
Geologist

CDM Smith
111 Academy Way
Suite 150
Irvine, CA 92617
Direct: 949-930-9877
Main: 949-752-5452
Cell: 949-579-0634
Email: myselsj@cdmsmith.com<mailto:myselsj@cdmsmith.com>

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Sample Administration Receipt Documentation Log

Doc Log ID: 14971

Group Number(s): 1475580

Client: CDM

SSFL

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/20/2014 9:45
Number of Packages:	2	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Brandy Barclay (2299) at 10:19 on 05/20/2014

Samples Chilled Details: SSFL

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT146	1.2	DT	Wet	Y	Bagged	N	N
2	DT146	0.8	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 02, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/20/2014
Group Number: 1475629
SDG: PH185
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SL-534-SA8-TR-0.5 Grab Soil	7470312
SL-534-SA8-TR-5.0 Grab Soil	7470313
SL-548-SA8-TR-0.5 Grab Soil	7470314
SL-848-SA8-TR-5.0 Grab Soil	7470315
SL-548-SA8-TR-5.0 Grab Soil	7470316
SL-548-SA8-TR-5.0 MS Grab Soil	7470317
SL-548-SA8-TR-5.0 MSD Grab Soil	7470318
SL-548-SA8-TR-5.0 DUP Grab Soil	7470319
SL-548-SA8-TR-10.0 Grab Soil	7470320
TB2-051914 Water	7470321

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: SL-534-SA8-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470312
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 09:10

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52405 SDG#: PH185-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	0.99	J	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.2	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	0.71	J	1.7	0.69	1
12969	Naphthalene	91-20-3	0.73	J	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.69	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	4.6	J	5.2	2.1	1
12952	EFH (C30-C40)	n.a.	11		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.2	U	5.2	2.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-534-SA8-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470312
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 09:10

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
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Fairfax VA 22030

52405 SDG#: PH185-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
13197	EFH C21-C30 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	16,900		41.3	7.45	1
06944	Antimony	7440-36-0	4.13	U	4.13	0.765	1
06935	Arsenic	7440-38-2	3.16	J	4.13	0.723	1
06946	Barium	7440-39-3	75.1		1.03	0.0341	1
06947	Beryllium	7440-41-7	0.589	J	1.03	0.0692	1
07914	Boron	7440-42-8	8.29	J	10.3	0.868	1
06949	Cadmium	7440-43-9	1.03	U	1.03	0.0785	1
01650	Calcium	7440-70-2	35,700		20.7	3.45	1
06951	Chromium	7440-47-3	22.5		3.10	0.165	1
06952	Cobalt	7440-48-4	5.69		1.03	0.102	1
06953	Copper	7440-50-8	18.5		2.07	0.300	1
01654	Iron	7439-89-6	22,100		41.3	3.74	1
06955	Lead	7439-92-1	8.90		3.10	0.517	1
01656	Lithium	7439-93-2	21.7		4.1	0.35	1
01657	Magnesium	7439-95-4	5,150		10.3	1.73	1
06958	Manganese	7439-96-5	305		1.03	0.0858	1
06960	Molybdenum	7439-98-7	2.07	U	2.07	0.176	1
06961	Nickel	7440-02-0	12.2		2.07	0.134	1
10145	Phosphorus	7723-14-0	339		10.3	2.99	1
01662	Potassium	7440-09-7	2,050		103	8.62	1
01667	Sodium	7440-23-5	105		103	17.3	1
06969	Tin	7440-31-5	3.09	J	10.3	0.227	1
06970	Titanium	7440-32-6	1,080		1.03	0.176	1
06971	Vanadium	7440-62-2	41.4		1.03	0.134	1
06972	Zinc	7440-66-6	51.7		4.13	0.207	1
10146	Zirconium	7440-67-7	4.00	J	5.17	0.868	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.117	J	0.413	0.103	2
06142	Silver	7440-22-4	0.0442	J	0.207	0.0269	2
06144	Strontium	7440-24-6	52.7		0.413	0.0703	2
06145	Thallium	7440-28-0	0.317		0.207	0.0310	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0171	U	0.0171	0.0102	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.35		0.0100	0.0100	1
	The pH was measured in water at 21.7 C.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-534-SA8-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470312
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 09:10

Submitted: 05/20/2014 09:45
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52405 SDG#: PH185-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	4.2	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

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SSFL Phase 3 Subarea 8

LL Sample # SW 7470312
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52405 SDG#: PH185-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.04	U	1.04	0.0284	1
11031	12378-PeCDD	40321-76-4	0.0374	JQ	5.18	0.0238	1
11031	123478-HxCDD	39227-28-6	0.0451	JQ	5.18	0.0227	1
11031	123678-HxCDD	57653-85-7	0.140	JBQ	5.18	0.0241	1
11031	123789-HxCDD	19408-74-3	0.100	JBQ	5.18	0.0237	1
11031	1234678-HpCDD	35822-46-9	1.13	JB	5.18	0.0255	1
11031	OCDD	3268-87-9	8.27	JB	10.4	0.0189	1
11031	2378-TCDF	51207-31-9	0.0798	J	1.04	0.0407	1
11031	12378-PeCDF	57117-41-6	0.223	JBQ	5.18	0.0186	1
11031	23478-PeCDF	57117-31-4	5.18	U	5.18	0.0203	1
11031	123478-HxCDF	70648-26-9	0.0484	JB	5.18	0.0267	1
11031	123678-HxCDF	57117-44-9	0.0986	JBQ	5.18	0.0220	1
11031	123789-HxCDF	72918-21-9	0.0364	JB	5.18	0.0321	1
11031	234678-HxCDF	60851-34-5	0.0899	JB	5.18	0.0243	1
11031	1234678-HpCDF	67562-39-4	0.244	JB	5.18	0.0101	1
11031	1234789-HpCDF	55673-89-7	0.0432	JBQ	5.18	0.0229	1
11031	OCDF	39001-02-0	0.424	JBQ	10.4	0.0262	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0416				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	67	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	83	23 - 140
13C12-OCDD	77	17 - 157
13C12-2378-TCDF	63	24 - 169
13C12-12378-PeCDF	81	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	71	26 - 152
13C12-123678-HxCDF	86	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	62	29 - 147
13C12-1234678-HpCDF	119	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	51	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-534-SA8-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470312
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 09:10

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
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Fairfax VA 22030

52405 SDG#: PH185-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-534-SA8-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470312
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 09:10

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3201 Jermantown Road
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52405 SDG#: PH185-01

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14142SLD026	05/26/2014 19:06	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14142SLD026	05/23/2014 04:15	Sherry L Morrow	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141420007A	05/26/2014 02:26	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141420007A	05/22/2014 16:40	JoElla L Rice	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141410016A	05/23/2014 19:32	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141410017A	05/23/2014 19:53	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141410017A	05/21/2014 16:30	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141410016A	05/21/2014 16:30	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14147001	05/30/2014 06:42	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14147001	05/27/2014 10:30	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	141430637001	05/28/2014 09:14	Joanne M Gates	1

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Sample Description: SL-534-SA8-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470312
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 09:10

Submitted: 05/20/2014 09:45
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CDM Federal Programs Corp.
3201 Jermantown Road
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52405 SDG#: PH185-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	141430637001B	05/28/2014 07:47	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141430637001A	05/28/2014 07:47	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141430637001A	05/28/2014 07:47	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141430637001A	05/28/2014 07:47	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141410638001	05/23/2014 08:43	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141430637001	05/27/2014 07:53	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141410638001	05/22/2014 12:50	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14140039402A	05/20/2014 20:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14142162401A	05/22/2014 20:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-534-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470313
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 09:40

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53450 SDG#: PH185-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.71	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.71	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.71	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.71	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.71	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.71	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.4	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.4	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.71	1
12969	Diethylphthalate	84-66-2	19	U	19	6.4	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.4	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.4	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.71	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.71	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.71	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.71	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.71	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.71	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.71	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.4	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.71	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.71	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2	24.04
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.5	1
13099	PCB-1232	11141-16-5	18	U	18	4.4	1
13099	PCB-1242	53469-21-9	18	U	18	4.4	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.7	1
13099	PCB-1260	11096-82-5	18	U	18	4.2	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-534-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470313
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 09:40

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53450 SDG#: PH185-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C30-C40)	n.a.	5.0	J	11	4.3	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.3	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,400		42.4	7.63	1
06944	Antimony	7440-36-0	4.24	U	4.24	0.784	1
06935	Arsenic	7440-38-2	1.33	J	4.24	0.741	1
06946	Barium	7440-39-3	66.8		1.06	0.0349	1
06947	Beryllium	7440-41-7	0.505	J	1.06	0.0709	1
07914	Boron	7440-42-8	6.99	J	10.6	0.890	1
06949	Cadmium	7440-43-9	1.06	U	1.06	0.0805	1
01650	Calcium	7440-70-2	5,600		21.2	3.54	1
06951	Chromium	7440-47-3	20.6		3.18	0.169	1
06952	Cobalt	7440-48-4	5.58		1.06	0.105	1
06953	Copper	7440-50-8	11.8		2.12	0.307	1
01654	Iron	7439-89-6	21,800		42.4	3.83	1
06955	Lead	7439-92-1	7.98		3.18	0.529	1
01656	Lithium	7439-93-2	20.4		4.2	0.36	1
01657	Magnesium	7439-95-4	5,290		10.6	1.77	1
06958	Manganese	7439-96-5	313		1.06	0.0879	1
06960	Molybdenum	7439-98-7	2.12	U	2.12	0.180	1
06961	Nickel	7440-02-0	11.2		2.12	0.138	1
10145	Phosphorus	7723-14-0	361		10.6	3.06	1
01662	Potassium	7440-09-7	1,610		106	8.83	1
01667	Sodium	7440-23-5	356		106	17.7	1
06969	Tin	7440-31-5	3.08	J	10.6	0.233	1
06970	Titanium	7440-32-6	1,110		1.06	0.180	1
06971	Vanadium	7440-62-2	36.1		1.06	0.138	1
06972	Zinc	7440-66-6	51.2		4.24	0.212	1
10146	Zirconium	7440-67-7	3.99	J	5.29	0.890	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.424	U	0.424	0.106	2
06142	Silver	7440-22-4	0.0298	J	0.212	0.0275	2
06144	Strontium	7440-24-6	17.3		0.424	0.0720	2
06145	Thallium	7440-28-0	0.227		0.212	0.0318	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0167	U	0.0167	0.0100	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-534-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470313
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 09:40

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53450 SDG#: PH185-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D	n.a.	8.81	0.0100	0.0100	1
	The pH was measured in water at 21.7 C.					
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	6.5	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: SL-534-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470313
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 09:40

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53450 SDG#: PH185-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.04	U	1.04	0.0253	1
11031	12378-PeCDD	40321-76-4	0.0283	JQ	5.18	0.0195	1
11031	123478-HxCDD	39227-28-6	0.0213	JQ	5.18	0.0152	1
11031	123678-HxCDD	57653-85-7	0.0225	JB	5.18	0.0150	1
11031	123789-HxCDD	19408-74-3	0.0190	JBQ	5.18	0.0150	1
11031	1234678-HpCDD	35822-46-9	0.393	JB	5.18	0.0219	1
11031	OCDD	3268-87-9	4.14	JB	10.4	0.0189	1
11031	2378-TCDF	51207-31-9	1.04	U	1.04	0.0225	1
11031	12378-PeCDF	57117-41-6	0.0383	JB	5.18	0.0101	1
11031	23478-PeCDF	57117-31-4	0.0197	JBQ	5.18	0.0113	1
11031	123478-HxCDF	70648-26-9	0.0412	JBQ	5.18	0.0159	1
11031	123678-HxCDF	57117-44-9	0.0238	JBQ	5.18	0.0129	1
11031	123789-HxCDF	72918-21-9	0.0200	JBQ	5.18	0.0160	1
11031	234678-HxCDF	60851-34-5	0.0478	JBQ	5.18	0.0145	1
11031	1234678-HpCDF	67562-39-4	0.217	JB	5.18	0.00813	1
11031	1234789-HpCDF	55673-89-7	0.0561	JB	5.18	0.0207	1
11031	OCDF	39001-02-0	0.781	JBQ	10.4	0.0285	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0113				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	65	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	83	23 - 140
13C12-OCDD	74	17 - 157
13C12-2378-TCDF	60	24 - 169
13C12-12378-PeCDF	82	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	66	26 - 152
13C12-123678-HxCDF	81	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	118	28 - 143
13C12-1234789-HpCDF	53	26 - 138
13C12-OCDF	43	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-534-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470313
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 09:40

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53450 SDG#: PH185-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-534-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470313
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 09:40

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53450 SDG#: PH185-02

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14142SLD026	05/26/2014 19:38	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14142SLD026	05/23/2014 04:15	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14141A16A	05/21/2014 22:40	Marie D Beamenderfer	24.04
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414034557	05/20/2014 19:26	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414034557	05/20/2014 19:27	Lois E Hiltz	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141420007A	05/26/2014 02:44	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141420007A	05/22/2014 16:40	JoElla L Rice	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141410016A	05/23/2014 19:53	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141410017A	05/23/2014 20:15	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141410017A	05/21/2014 16:30	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141410016A	05/21/2014 16:30	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14147001	05/30/2014 07:38	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14147001	05/27/2014 10:30	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-534-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470313
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 09:40

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53450 SDG#: PH185-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	141430637001	05/28/2014 09:18	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	141430637001B	05/28/2014 07:21	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141430637001A	05/28/2014 07:21	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141430637001A	05/28/2014 07:21	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141430637001A	05/28/2014 07:21	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141410638001	05/23/2014 08:45	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141430637001	05/27/2014 07:53	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141410638001	05/22/2014 12:50	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14140039402A	05/20/2014 20:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14142162401A	05/22/2014 20:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470314
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:37

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54805 SDG#: PH185-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.73	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.37	1
12969	Anthracene	120-12-7	0.61	J	1.8	0.37	1
12969	Benzo(a)anthracene	56-55-3	0.85	J	1.8	0.73	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.73	1
12969	Benzo(b)fluoranthene	205-99-2	1.3	J	1.8	0.73	1
12969	Benzo(e)pyrene	192-97-2	19	U	19	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.73	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.73	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.6	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.6	1
12969	Chrysene	218-01-9	1.8	J	1.8	0.37	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.73	1
12969	Diethylphthalate	84-66-2	20	U	20	6.6	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.6	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	14	J	20	6.6	1
12969	Fluoranthene	206-44-0	2.6		1.8	0.73	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.73	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.73	1
12969	1-Methylnaphthalene	90-12-0	0.83	J	1.8	0.73	1
12969	2-Methylnaphthalene	91-57-6	1.8	J	1.8	0.73	1
12969	Naphthalene	91-20-3	4.3		1.8	0.73	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.73	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.6	1
12969	Phenanthrene	85-01-8	3.7		1.8	0.73	1
12969	Pyrene	129-00-0	1.8	J	1.8	0.73	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	19	U	19	3.6	1
13099	PCB-1221	11104-28-2	19	U	19	5.6	1
13099	PCB-1232	11141-16-5	19	U	19	4.5	1
13099	PCB-1242	53469-21-9	19	U	19	4.5	1
13099	PCB-1248	12672-29-6	19	U	19	3.6	1
13099	PCB-1254	11097-69-1	19	U	19	4.8	1
13099	PCB-1260	11096-82-5	19	U	19	4.3	1
13099	PCB-1262	37324-23-5	19	U	19	3.6	1
13099	PCB-1268	11100-14-4	19	U	19	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C21-C30)	n.a.	6.0		5.5	2.2	1
12952	EFH (C30-C40)	n.a.	17		11	4.4	1
12952	EFH (C8-C11)	n.a.	5.5	U	5.5	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.5	U	5.5	2.2	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470314
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:37

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54805 SDG#: PH185-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
13197	EFH C21-C30 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.4	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	29,200		44.0	7.92	1
06944	Antimony	7440-36-0	4.40	U	4.40	0.813	1
06935	Arsenic	7440-38-2	3.58	J	4.40	0.769	1
06946	Barium	7440-39-3	141		1.10	0.0363	1
06947	Beryllium	7440-41-7	1.02	J	1.10	0.0736	1
07914	Boron	7440-42-8	15.5		11.0	0.923	1
06949	Cadmium	7440-43-9	1.10	U	1.10	0.0835	1
01650	Calcium	7440-70-2	15,400		22.0	3.67	1
06951	Chromium	7440-47-3	35.6		3.30	0.176	1
06952	Cobalt	7440-48-4	10.7		1.10	0.109	1
06953	Copper	7440-50-8	21.7		2.20	0.319	1
01654	Iron	7439-89-6	31,500		87.9	7.96	2
06955	Lead	7439-92-1	14.9		3.30	0.549	1
01656	Lithium	7439-93-2	24.5		4.4	0.37	1
01657	Magnesium	7439-95-4	7,060		11.0	1.84	1
06958	Manganese	7439-96-5	504		1.10	0.0912	1
06960	Molybdenum	7439-98-7	2.20	U	2.20	0.187	1
06961	Nickel	7440-02-0	20.8		2.20	0.143	1
10145	Phosphorus	7723-14-0	418		11.0	3.18	1
01662	Potassium	7440-09-7	5,930		110	9.16	1
01667	Sodium	7440-23-5	108	J	110	18.4	1
06969	Tin	7440-31-5	3.13	J	11.0	0.242	1
06970	Titanium	7440-32-6	1,150		1.10	0.187	1
06971	Vanadium	7440-62-2	64.4		1.10	0.143	1
06972	Zinc	7440-66-6	74.6		4.40	0.220	1
10146	Zirconium	7440-67-7	6.62		5.49	0.923	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.178	J	0.440	0.110	2
06142	Silver	7440-22-4	0.0623	J	0.220	0.0286	2
06144	Strontium	7440-24-6	47.1		0.440	0.0747	2
06145	Thallium	7440-28-0	0.351		0.220	0.0330	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0139	J	0.0180	0.0108	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.17		0.0100	0.0100	1
	The pH was measured in water at 21.4 C.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470314
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:37

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54805 SDG#: PH185-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	9.0	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470314
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:37

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54805 SDG#: PH185-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.07	U	1.07	0.0239	1
11031	12378-PeCDD	40321-76-4	0.0253	JQ	5.37	0.0233	1
11031	123478-HxCDD	39227-28-6	0.0438	JQ	5.37	0.0270	1
11031	123678-HxCDD	57653-85-7	0.230	JBQ	5.37	0.0279	1
11031	123789-HxCDD	19408-74-3	0.317	JB	5.37	0.0264	1
11031	1234678-HpCDD	35822-46-9	2.59	JB	5.37	0.0184	1
11031	OCDD	3268-87-9	20.7	B	10.7	0.0187	1
11031	2378-TCDF	51207-31-9	0.0392	J	1.07	0.0245	1
11031	12378-PeCDF	57117-41-6	0.148	JB	5.37	0.0121	1
11031	23478-PeCDF	57117-31-4	0.0525	JBQ	5.37	0.0129	1
11031	123478-HxCDF	70648-26-9	0.0505	JBQ	5.37	0.0196	1
11031	123678-HxCDF	57117-44-9	0.0533	JBQ	5.37	0.0157	1
11031	123789-HxCDF	72918-21-9	0.272	JB	5.37	0.0183	1
11031	234678-HxCDF	60851-34-5	0.0448	JBQ	5.37	0.0167	1
11031	1234678-HpCDF	67562-39-4	0.352	JB	5.37	0.00878	1
11031	1234789-HpCDF	55673-89-7	0.0502	JBQ	5.37	0.0206	1
11031	OCDF	39001-02-0	0.941	JB	10.7	0.0242	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.103				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	80	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	80	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	89	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	71	26 - 152
13C12-123678-HxCDF	83	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	79	29 - 147
13C12-1234678-HpCDF	124	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	50	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470314
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:37

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54805 SDG#: PH185-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470314
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:37

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54805 SDG#: PH185-03

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14142SLD026	05/27/2014 03:02	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14142SLD026	05/23/2014 04:15	Sherry L Morrow	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141420007A	05/26/2014 03:03	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141420007A	05/22/2014 16:40	JoElla L Rice	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141410016A	05/23/2014 20:15	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141410017A	05/23/2014 20:36	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141410017A	05/21/2014 16:30	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141410016A	05/21/2014 16:30	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14147001	05/30/2014 08:35	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14147001	05/27/2014 10:30	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141430637001	05/28/2014 09:30	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141430637001	05/28/2014 09:30	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141430637001	05/28/2014 09:30	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141430637001	05/28/2014 09:30	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	141430637001	05/28/2014 09:30	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141430637001	05/28/2014 09:30	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	141430637001	05/28/2014 09:30	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141430637001	05/28/2014 09:30	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141430637001	05/28/2014 09:30	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141430637001	05/28/2014 09:30	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141430637001	05/28/2014 09:30	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141430637001	05/29/2014 07:30	Joanne M Gates	2
06955	Lead	SW-846 6010C	1	141430637001	05/28/2014 09:30	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141430637001	05/28/2014 09:30	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141430637001	05/28/2014 09:30	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141430637001	05/28/2014 09:30	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	141430637001	05/28/2014 09:30	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	141430637001	05/28/2014 09:30	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141430637001	05/28/2014 09:30	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	141430637001	05/28/2014 09:30	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141430637001	05/28/2014 09:30	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	141430637001	05/28/2014 09:30	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	141430637001	05/28/2014 09:30	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	141430637001	05/28/2014 09:30	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141430637001	05/28/2014 09:30	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	141430637001	05/28/2014 09:30	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470314
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:37

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54805 SDG#: PH185-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	141430637001B	05/28/2014 06:47	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141430637001A	05/28/2014 06:47	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141430637001A	05/28/2014 06:47	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141430637001A	05/28/2014 06:47	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141410638001	05/23/2014 08:47	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141430637001	05/27/2014 07:53	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141410638001	05/22/2014 12:50	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14140039402A	05/20/2014 20:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14142162401A	05/22/2014 20:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-848-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470315
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:22

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84850 SDG#: PH185-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.9	U	1.9	0.76	1
12969	Acenaphthylene	208-96-8	1.9	U	1.9	0.38	1
12969	Anthracene	120-12-7	1.9	U	1.9	0.38	1
12969	Benzo(a)anthracene	56-55-3	1.9	U	1.9	0.76	1
12969	Benzo(a)pyrene	50-32-8	1.9	U	1.9	0.76	1
12969	Benzo(b)fluoranthene	205-99-2	1.9	U	1.9	0.76	1
12969	Benzo(e)pyrene	192-97-2	19	U	19	3.8	1
12969	Benzo(g,h,i)perylene	191-24-2	1.9	U	1.9	0.76	1
12969	Benzo(k)fluoranthene	207-08-9	1.9	U	1.9	0.76	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.8	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.8	1
12969	Chrysene	218-01-9	1.9	U	1.9	0.38	1
12969	Dibenz(a,h)anthracene	53-70-3	1.9	U	1.9	0.76	1
12969	Diethylphthalate	84-66-2	20	U	20	6.8	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.8	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20	U	20	6.8	1
12969	Fluoranthene	206-44-0	1.9	U	1.9	0.76	1
12969	Fluorene	86-73-7	1.9	U	1.9	0.76	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.9	U	1.9	0.76	1
12969	1-Methylnaphthalene	90-12-0	1.9	U	1.9	0.76	1
12969	2-Methylnaphthalene	91-57-6	1.9	U	1.9	0.76	1
12969	Naphthalene	91-20-3	1.9	U	1.9	0.76	1
12969	N-Nitrosodimethylamine	62-75-9	1.9	U	1.9	0.76	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.8	1
12969	Phenanthrene	85-01-8	1.9	U	1.9	0.76	1
12969	Pyrene	129-00-0	1.9	U	1.9	0.76	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2	22.94
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	38	U	38	11	1
13099	Aroclor 5442	12642-23-8	38	U	38	11	1
13099	Aroclor 5460	11126-42-4	38	U	38	11	1
13099	PCB-1016	12674-11-2	19	U	19	3.8	1
13099	PCB-1221	11104-28-2	19	U	19	5.8	1
13099	PCB-1232	11141-16-5	19	U	19	4.7	1
13099	PCB-1242	53469-21-9	19	U	19	4.7	1
13099	PCB-1248	12672-29-6	19	U	19	3.8	1
13099	PCB-1254	11097-69-1	19	U	19	5.0	1
13099	PCB-1260	11096-82-5	19	U	19	4.4	1
13099	PCB-1262	37324-23-5	19	U	19	3.8	1
13099	PCB-1268	11100-14-4	19	U	19	3.8	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.7	U	5.7	2.3	1
12952	EFH (C15-C20)	n.a.	5.7	U	5.7	2.3	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-848-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470315
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:22

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84850 SDG#: PH185-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	2.9	J	5.7	2.3	1
12952	EFH (C30-C40)	n.a.	15		11	4.6	1
12952	EFH (C8-C11)	n.a.	5.7	U	5.7	2.3	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.7	U	5.7	2.3	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.7	U	5.7	2.3	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.7	U	5.7	2.3	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.6	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.7	U	5.7	2.3	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	27,300		43.8	7.89	1
06944	Antimony	7440-36-0	4.38	U	4.38	0.809	1
06935	Arsenic	7440-38-2	2.99	J	4.38	0.766	1
06946	Barium	7440-39-3	112		1.09	0.0361	1
06947	Beryllium	7440-41-7	0.873	J	1.09	0.0733	1
07914	Boron	7440-42-8	12.9		10.9	0.919	1
06949	Cadmium	7440-43-9	1.09	U	1.09	0.0831	1
01650	Calcium	7440-70-2	46,300		21.9	3.65	1
06951	Chromium	7440-47-3	33.0		3.28	0.175	1
06952	Cobalt	7440-48-4	7.31		1.09	0.108	1
06953	Copper	7440-50-8	17.6		2.19	0.317	1
01654	Iron	7439-89-6	29,300		87.5	7.92	2
06955	Lead	7439-92-1	11.3		3.28	0.547	1
01656	Lithium	7439-93-2	24.5		4.4	0.37	1
01657	Magnesium	7439-95-4	6,420		10.9	1.83	1
06958	Manganese	7439-96-5	260		1.09	0.0908	1
06960	Molybdenum	7439-98-7	2.19	U	2.19	0.186	1
06961	Nickel	7440-02-0	15.5		2.19	0.142	1
10145	Phosphorus	7723-14-0	239		10.9	3.16	1
01662	Potassium	7440-09-7	2,600		109	9.12	1
01667	Sodium	7440-23-5	154		109	18.3	1
06969	Tin	7440-31-5	3.31	J	10.9	0.241	1
06970	Titanium	7440-32-6	1,020		1.09	0.186	1
06971	Vanadium	7440-62-2	57.9		1.09	0.142	1
06972	Zinc	7440-66-6	58.8		4.38	0.219	1
10146	Zirconium	7440-67-7	5.60		5.47	0.919	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.438	U	0.438	0.109	2
06142	Silver	7440-22-4	0.0509	J	0.219	0.0284	2
06144	Strontium	7440-24-6	53.9		0.438	0.0744	2
06145	Thallium	7440-28-0	0.322		0.219	0.0328	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0125	J	0.0187	0.0112	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-848-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470315
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:22

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84850 SDG#: PH185-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 21.7 C.	n.a.	8.11	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	12.1	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-848-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470315
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:22

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84850 SDG#: PH185-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.12	U	1.12	0.0364	1
11031	12378-PeCDD	40321-76-4	5.59	U	5.59	0.0263	1
11031	123478-HxCDD	39227-28-6	0.0245	JQ	5.59	0.0194	1
11031	123678-HxCDD	57653-85-7	5.59	U	5.59	0.0198	1
11031	123789-HxCDD	19408-74-3	5.59	U	5.59	0.0196	1
11031	1234678-HpCDD	35822-46-9	0.0786	JBQ	5.59	0.0185	1
11031	OCDD	3268-87-9	0.359	JB	11.2	0.0229	1
11031	2378-TCDF	51207-31-9	1.12	U	1.12	0.0262	1
11031	12378-PeCDF	57117-41-6	0.0148	JB	5.59	0.0130	1
11031	23478-PeCDF	57117-31-4	0.0260	JBQ	5.59	0.0144	1
11031	123478-HxCDF	70648-26-9	0.0172	JB	5.59	0.0119	1
11031	123678-HxCDF	57117-44-9	5.59	U	5.59	0.00909	1
11031	123789-HxCDF	72918-21-9	0.0438	JBQ	5.59	0.0139	1
11031	234678-HxCDF	60851-34-5	0.0235	JB	5.59	0.0104	1
11031	1234678-HpCDF	67562-39-4	0.0246	JBQ	5.59	0.00655	1
11031	1234789-HpCDF	55673-89-7	0.0695	JBQ	5.59	0.0178	1
11031	OCDF	39001-02-0	0.197	JBQ	11.2	0.0381	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.00462				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	76	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	74	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	85	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	64	29 - 147
13C12-1234678-HpCDF	122	28 - 143
13C12-1234789-HpCDF	53	26 - 138
13C12-OCDF	44	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-848-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470315
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:22

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84850 SDG#: PH185-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-848-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470315
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:22

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84850 SDG#: PH185-04

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14142SLD026	05/27/2014 03:34	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14142SLD026	05/23/2014 04:15	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14141A16A	05/21/2014 23:18	Marie D Beamenderfer	22.94
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414034557	05/20/2014 19:29	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414034557	05/20/2014 19:29	Lois E Hiltz	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141420007A	05/26/2014 04:35	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141420007A	05/22/2014 16:40	JoElla L Rice	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141410016A	05/23/2014 20:36	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141410017A	05/23/2014 20:58	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141410017A	05/21/2014 16:30	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141410016A	05/21/2014 16:30	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14147001	05/30/2014 09:32	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14147001	05/27/2014 10:30	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141430637001	05/28/2014 09:33	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141430637001	05/28/2014 09:33	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141430637001	05/28/2014 09:33	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141430637001	05/28/2014 09:33	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	141430637001	05/28/2014 09:33	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141430637001	05/28/2014 09:33	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	141430637001	05/28/2014 09:33	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141430637001	05/28/2014 09:33	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141430637001	05/28/2014 09:33	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141430637001	05/28/2014 09:33	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141430637001	05/28/2014 09:33	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141430637001	05/29/2014 07:34	Joanne M Gates	2
06955	Lead	SW-846 6010C	1	141430637001	05/28/2014 09:33	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141430637001	05/28/2014 09:33	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141430637001	05/28/2014 09:33	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141430637001	05/28/2014 09:33	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	141430637001	05/28/2014 09:33	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	141430637001	05/28/2014 09:33	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141430637001	05/28/2014 09:33	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	141430637001	05/28/2014 09:33	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141430637001	05/28/2014 09:33	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	141430637001	05/28/2014 09:33	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-848-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470315
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:22

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84850 SDG#: PH185-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010C	1	141430637001	05/28/2014 09:33	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	141430637001	05/28/2014 09:33	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141430637001	05/28/2014 09:33	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	141430637001	05/28/2014 09:33	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	141430637001B	05/28/2014 06:50	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141430637001A	05/28/2014 06:50	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141430637001A	05/28/2014 06:50	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141430637001A	05/28/2014 06:50	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141410638001	05/23/2014 08:49	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141430637001	05/27/2014 07:53	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141410638001	05/22/2014 12:50	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14140039402A	05/20/2014 20:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14142162401A	05/22/2014 20:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470316
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:17

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54850 SDG#: PH185-05BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.9	U	1.9	0.77	1
12969	Acenaphthylene	208-96-8	1.9	U	1.9	0.38	1
12969	Anthracene	120-12-7	1.9	U	1.9	0.38	1
12969	Benzo(a)anthracene	56-55-3	1.9	U	1.9	0.77	1
12969	Benzo(a)pyrene	50-32-8	1.9	U	1.9	0.77	1
12969	Benzo(b)fluoranthene	205-99-2	1.9	U	1.9	0.77	1
12969	Benzo(e)pyrene	192-97-2	20	U	20	3.8	1
12969	Benzo(g,h,i)perylene	191-24-2	1.9	U	1.9	0.77	1
12969	Benzo(k)fluoranthene	207-08-9	1.9	U	1.9	0.77	1
12969	Butylbenzylphthalate	85-68-7	21	U	21	6.9	1
12969	Di-n-butylphthalate	84-74-2	21	U	21	6.9	1
12969	Chrysene	218-01-9	1.9	U	1.9	0.38	1
12969	Dibenz(a,h)anthracene	53-70-3	1.9	U	1.9	0.77	1
12969	Diethylphthalate	84-66-2	21	U	21	6.9	1
12969	Dimethylphthalate	131-11-3	21	U	21	6.9	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	21	U	21	6.9	1
12969	Fluoranthene	206-44-0	1.9	U	1.9	0.77	1
12969	Fluorene	86-73-7	1.9	U	1.9	0.77	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.9	U	1.9	0.77	1
12969	1-Methylnaphthalene	90-12-0	1.9	U	1.9	0.77	1
12969	2-Methylnaphthalene	91-57-6	1.9	U	1.9	0.77	1
12969	Naphthalene	91-20-3	1.9	U	1.9	0.77	1
12969	N-Nitrosodimethylamine	62-75-9	1.9	U	1.9	0.77	1
12969	Di-n-octylphthalate	117-84-0	21	U	21	6.9	1
12969	Phenanthrene	85-01-8	1.9	U	1.9	0.77	1
12969	Pyrene	129-00-0	1.9	U	1.9	0.77	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	22.81
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	38	U	38	12	1
13099	Aroclor 5442	12642-23-8	38	U	38	12	1
13099	Aroclor 5460	11126-42-4	38	U	38	12	1
13099	PCB-1016	12674-11-2	20	U	20	3.8	1
13099	PCB-1221	11104-28-2	20	U	20	5.9	1
13099	PCB-1232	11141-16-5	20	U	20	4.7	1
13099	PCB-1242	53469-21-9	20	U	20	4.7	1
13099	PCB-1248	12672-29-6	20	U	20	3.8	1
13099	PCB-1254	11097-69-1	20	U	20	5.1	1
13099	PCB-1260	11096-82-5	20	U	20	4.5	1
13099	PCB-1262	37324-23-5	20	U	20	3.8	1
13099	PCB-1268	11100-14-4	20	U	20	3.8	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.8	U	5.8	2.3	1
12952	EFH (C15-C20)	n.a.	5.8	U	5.8	2.3	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470316
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:17

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54850 SDG#: PH185-05BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.8	U	5.8	2.3	1
12952	EFH (C30-C40)	n.a.	12	U	12	4.6	1
12952	EFH (C8-C11)	n.a.	5.8	U	5.8	2.3	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.8	U	5.8	2.3	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.8	U	5.8	2.3	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.8	U	5.8	2.3	1
13197	EFH C30-C40 w/ SiGel	n.a.	12	U	12	4.6	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.8	U	5.8	2.3	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	29,100		45.3	8.17	1
06944	Antimony	7440-36-0	4.53	U	4.53	0.839	1
06935	Arsenic	7440-38-2	2.92	J	4.53	0.793	1
06946	Barium	7440-39-3	123		1.13	0.0374	1
06947	Beryllium	7440-41-7	1.00	J	1.13	0.0759	1
07914	Boron	7440-42-8	12.6		11.3	0.952	1
06949	Cadmium	7440-43-9	1.13	U	1.13	0.0861	1
01650	Calcium	7440-70-2	18,000		22.7	3.79	1
06951	Chromium	7440-47-3	35.4		3.40	0.181	1
06952	Cobalt	7440-48-4	7.01		1.13	0.112	1
06953	Copper	7440-50-8	19.1		2.27	0.329	1
01654	Iron	7439-89-6	31,900		90.7	8.21	2
06955	Lead	7439-92-1	13.1		3.40	0.567	1
01656	Lithium	7439-93-2	26.2		4.5	0.39	1
01657	Magnesium	7439-95-4	7,090		11.3	1.89	1
06958	Manganese	7439-96-5	261		1.13	0.0941	1
06960	Molybdenum	7439-98-7	2.27	U	2.27	0.193	1
06961	Nickel	7440-02-0	17.1		2.27	0.147	1
10145	Phosphorus	7723-14-0	240		11.3	3.28	1
01662	Potassium	7440-09-7	2,740		113	9.45	1
01667	Sodium	7440-23-5	163		113	18.9	1
06969	Tin	7440-31-5	3.34	J	11.3	0.249	1
06970	Titanium	7440-32-6	1,020		1.13	0.193	1
06971	Vanadium	7440-62-2	61.7		1.13	0.147	1
06972	Zinc	7440-66-6	64.4		4.53	0.227	1
10146	Zirconium	7440-67-7	6.04		5.67	0.952	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.453	U	0.453	0.113	2
06142	Silver	7440-22-4	0.0496	J	0.227	0.0295	2
06144	Strontium	7440-24-6	47.7		0.453	0.0771	2
06145	Thallium	7440-28-0	0.316		0.227	0.0340	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0127	J	0.0188	0.0113	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470316
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:17

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54850 SDG#: PH185-05BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D	n.a.	8.19	0.0100	0.0100	1
	The pH was measured in water at 21.8 C.					
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	13.5	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470316
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:17

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54850 SDG#: PH185-05BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.15	U	1.15	0.0292	1
11031	12378-PeCDD	40321-76-4	0.0232	JQ	5.77	0.0204	1
11031	123478-HxCDD	39227-28-6	0.0310	JQ	5.77	0.0184	1
11031	123678-HxCDD	57653-85-7	0.0290	JBQ	5.77	0.0191	1
11031	123789-HxCDD	19408-74-3	5.77	U	5.77	0.0190	1
11031	1234678-HpCDD	35822-46-9	0.111	JB	5.77	0.0201	1
11031	OCDD	3268-87-9	0.434	JB	11.5	0.0219	1
11031	2378-TCDF	51207-31-9	1.15	U	1.15	0.0204	1
11031	12378-PeCDF	57117-41-6	0.0686	JB	5.77	0.0116	1
11031	23478-PeCDF	57117-31-4	0.0262	JBQ	5.77	0.0120	1
11031	123478-HxCDF	70648-26-9	0.111	JB	5.77	0.0138	1
11031	123678-HxCDF	57117-44-9	0.0637	JBQ	5.77	0.0116	1
11031	123789-HxCDF	72918-21-9	0.0470	JB	5.77	0.0160	1
11031	234678-HxCDF	60851-34-5	0.0428	JBQ	5.77	0.0132	1
11031	1234678-HpCDF	67562-39-4	0.209	JBQ	5.77	0.00857	1
11031	1234789-HpCDF	55673-89-7	0.0636	JBQ	5.77	0.0176	1
11031	OCDF	39001-02-0	0.559	JBQ	11.5	0.0336	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0190				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	66	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	71	32 - 141
13C12-123678-HxCDD	73	28 - 130
13C12-123789-HxCDD	72	28 - 130
13C12-1234678-HpCDD	68	23 - 140
13C12-OCDD	62	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	66	21 - 178
13C12-123478-HxCDF	66	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	60	29 - 147
13C12-1234678-HpCDF	93	28 - 143
13C12-1234789-HpCDF	52	26 - 138
13C12-OCDF	43	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470316
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:17

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54850 SDG#: PH185-05BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470316
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:17

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54850 SDG#: PH185-05BKG

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14142SLD026	05/26/2014 17:31	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14142SLD026	05/23/2014 04:15	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14141A16A	05/22/2014 00:34	Marie D Beamenderfer	22.81
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414034557	05/20/2014 19:32	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414034557	05/20/2014 19:33	Lois E Hiltz	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141420007A	05/26/2014 04:53	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141420007A	05/22/2014 16:40	JoElla L Rice	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141410016A	05/23/2014 20:58	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141410017A	05/23/2014 21:20	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141410017A	05/21/2014 16:30	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141410016A	05/21/2014 16:30	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14147001	05/30/2014 20:15	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14147001	05/27/2014 10:30	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141430637001	05/28/2014 08:51	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141430637001	05/28/2014 08:51	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141430637001	05/28/2014 08:51	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141430637001	05/28/2014 08:51	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	141430637001	05/28/2014 08:51	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141430637001	05/28/2014 08:51	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	141430637001	05/28/2014 08:51	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141430637001	05/28/2014 08:51	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141430637001	05/28/2014 08:51	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141430637001	05/28/2014 08:51	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141430637001	05/28/2014 08:51	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141430637001	05/29/2014 07:07	Joanne M Gates	2
06955	Lead	SW-846 6010C	1	141430637001	05/28/2014 08:51	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141430637001	05/28/2014 08:51	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141430637001	05/28/2014 08:51	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141430637001	05/28/2014 08:51	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	141430637001	05/28/2014 08:51	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	141430637001	05/28/2014 08:51	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141430637001	05/28/2014 08:51	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	141430637001	05/28/2014 08:51	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141430637001	05/28/2014 08:51	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	141430637001	05/28/2014 08:51	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470316
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:17

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54850 SDG#: PH185-05BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010C	1	141430637001	05/28/2014 08:51	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	141430637001	05/28/2014 08:51	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141430637001	05/28/2014 08:51	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	141430637001	05/28/2014 08:51	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	141430637001B	05/28/2014 06:28	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141430637001A	05/28/2014 06:28	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141430637001A	05/28/2014 06:28	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141430637001A	05/28/2014 06:28	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141410638001	05/23/2014 08:51	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141430637001	05/27/2014 07:53	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141410638001	05/22/2014 12:50	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14140039402A	05/20/2014 20:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14142162401A	05/22/2014 20:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-5.0 MS Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470317
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:17

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54850 SDG#: PH185-05MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	40		1.9	0.77	1
12969	Acenaphthylene	208-96-8	39		1.9	0.38	1
12969	Anthracene	120-12-7	41		1.9	0.38	1
12969	Benzo(a)anthracene	56-55-3	40		1.9	0.77	1
12969	Benzo(a)pyrene	50-32-8	36		1.9	0.77	1
12969	Benzo(b)fluoranthene	205-99-2	41		1.9	0.77	1
12969	Benzo(e)pyrene	192-97-2	32		20	3.8	1
12969	Benzo(g,h,i)perylene	191-24-2	33		1.9	0.77	1
12969	Benzo(k)fluoranthene	207-08-9	35		1.9	0.77	1
12969	Butylbenzylphthalate	85-68-7	39		21	6.9	1
12969	Di-n-butylphthalate	84-74-2	43		21	6.9	1
12969	Chrysene	218-01-9	37		1.9	0.38	1
12969	Dibenz(a,h)anthracene	53-70-3	37		1.9	0.77	1
12969	Diethylphthalate	84-66-2	35		21	6.9	1
12969	Dimethylphthalate	131-11-3	36		21	6.9	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	45		21	6.9	1
12969	Fluoranthene	206-44-0	40		1.9	0.77	1
12969	Fluorene	86-73-7	40		1.9	0.77	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	36		1.9	0.77	1
12969	1-Methylnaphthalene	90-12-0	36		1.9	0.77	1
12969	2-Methylnaphthalene	91-57-6	39		1.9	0.77	1
12969	Naphthalene	91-20-3	37		1.9	0.77	1
12969	N-Nitrosodimethylamine	62-75-9	35		1.9	0.77	1
12969	Di-n-octylphthalate	117-84-0	44		21	6.9	1
12969	Phenanthrene	85-01-8	39		1.9	0.77	1
12969	Pyrene	129-00-0	36		1.9	0.77	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	8.4		0.9	0.2	20.53
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	38	U	38	12	1
13099	Aroclor 5442	12642-23-8	38	U	38	12	1
13099	Aroclor 5460	11126-42-4	38	U	38	12	1
13099	PCB-1016	12674-11-2	180		20	3.8	1
13099	PCB-1221	11104-28-2	20	U	20	5.9	1
13099	PCB-1232	11141-16-5	20	U	20	4.7	1
13099	PCB-1242	53469-21-9	20	U	20	4.7	1
13099	PCB-1248	12672-29-6	20	U	20	3.8	1
13099	PCB-1254	11097-69-1	20	U	20	5.1	1
13099	PCB-1260	11096-82-5	200		20	4.5	1
13099	PCB-1262	37324-23-5	20	U	20	3.8	1
13099	PCB-1268	11100-14-4	20	U	20	3.8	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	6.3		5.8	2.3	1
12952	EFH (C15-C20)	n.a.	9.7		5.8	2.3	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-5.0 MS Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470317
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:17

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54850 SDG#: PH185-05MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	17		5.8	2.3	1
12952	EFH (C30-C40)	n.a.	20		12	4.6	1
12952	EFH (C8-C11)	n.a.	5.2	J	5.8	2.3	1
13197	EFH C12-C14 w/ SiGel	n.a.	4.2	J	5.8	2.3	1
13197	EFH C15-C20 w/ SiGel	n.a.	6.4		5.8	2.3	1
13197	EFH C21-C30 w/ SiGel	n.a.	11		5.8	2.3	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	J	12	4.6	1
13197	EFH C8-C11 w/ SiGel	n.a.	3.5	J	5.8	2.3	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	34,600		45.3	8.17	1
06944	Antimony	7440-36-0	23.3		4.53	0.839	1
06935	Arsenic	7440-38-2	20.8		4.53	0.793	1
06946	Barium	7440-39-3	334		1.13	0.0374	1
06947	Beryllium	7440-41-7	6.64		1.13	0.0759	1
07914	Boron	7440-42-8	237		11.3	0.952	1
06949	Cadmium	7440-43-9	4.52		1.13	0.0861	1
01650	Calcium	7440-70-2	68,600		45.3	7.57	2
06951	Chromium	7440-47-3	58.0		3.40	0.181	1
06952	Cobalt	7440-48-4	56.7		1.13	0.112	1
06953	Copper	7440-50-8	48.5		2.27	0.329	1
01654	Iron	7439-89-6	30,400		45.3	4.10	1
06955	Lead	7439-92-1	25.3		3.40	0.567	1
01656	Lithium	7439-93-2	142		4.5	0.39	1
01657	Magnesium	7439-95-4	7,120		11.3	1.89	1
06958	Manganese	7439-96-5	315		1.13	0.0941	1
06960	Molybdenum	7439-98-7	196		2.27	0.193	1
06961	Nickel	7440-02-0	65.7		2.27	0.147	1
10145	Phosphorus	7723-14-0	358		11.3	3.28	1
01662	Potassium	7440-09-7	4,160		113	9.45	1
01667	Sodium	7440-23-5	1,290		113	18.9	1
06969	Tin	7440-31-5	375		11.3	0.249	1
06970	Titanium	7440-32-6	1,530		1.13	0.193	1
06971	Vanadium	7440-62-2	124		1.13	0.147	1
06972	Zinc	7440-66-6	113		4.53	0.227	1
10146	Zirconium	7440-67-7	115		5.67	0.952	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.12		0.453	0.113	2
06142	Silver	7440-22-4	11.4		0.227	0.0295	2
06144	Strontium	7440-24-6	58.8		0.453	0.0771	2
06145	Thallium	7440-28-0	0.767		0.227	0.0340	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.192		0.0186	0.0112	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-5.0 MS Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470317
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:17

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54850 SDG#: PH185-05MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	14a Moisture Content by 160.3	n.a.	13.5	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-5.0 MS Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470317
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:17

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54850 SDG#: PH185-05MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	21.7	B	1.12	0.0490	1
11031	12378-PeCDD	40321-76-4	108		5.58	0.0464	1
11031	123478-HxCDD	39227-28-6	110		5.58	0.0556	1
11031	123678-HxCDD	57653-85-7	107	B	5.58	0.0544	1
11031	123789-HxCDD	19408-74-3	110	B	5.58	0.0538	1
11031	1234678-HpCDD	35822-46-9	109	B	5.58	0.0494	1
11031	OCDD	3268-87-9	211	B	11.2	0.0431	1
11031	2378-TCDF	51207-31-9	22.2		1.12	0.0426	1
11031	12378-PeCDF	57117-41-6	107	B	5.58	0.0352	1
11031	23478-PeCDF	57117-31-4	109	B	5.58	0.0373	1
11031	123478-HxCDF	70648-26-9	113	B	5.58	0.0841	1
11031	123678-HxCDF	57117-44-9	112	B	5.58	0.0712	1
11031	123789-HxCDF	72918-21-9	109	B	5.58	0.0834	1
11031	234678-HxCDF	60851-34-5	109	B	5.58	0.0777	1
11031	1234678-HpCDF	67562-39-4	109	B	5.58	0.0370	1
11031	1234789-HpCDF	55673-89-7	110	B	5.58	0.0703	1
11031	OCDF	39001-02-0	217	B	11.2	0.0546	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	80	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	83	23 - 140
13C12-OCDD	75	17 - 157
13C12-2378-TCDF	72	24 - 169
13C12-12378-PeCDF	88	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	86	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	84	29 - 147
13C12-1234678-HpCDF	107	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	56	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-5.0 MS Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470317
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:17

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54850 SDG#: PH185-05MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
S	*Saturation of detection signal*					

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-5.0 MS Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470317
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

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3201 Jermantown Road
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Fairfax VA 22030

54850 SDG#: PH185-05MS

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14142SLD026	05/26/2014 18:03	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14142SLD026	05/23/2014 04:15	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14141A16A	05/22/2014 13:14	Marie D Beamenderfer	20.53
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414034557	05/20/2014 19:34	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414034557	05/20/2014 19:34	Lois E Hiltz	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141420007A	05/26/2014 05:11	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141420007A	05/22/2014 16:40	JoElla L Rice	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141410016A	05/23/2014 21:20	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141410017A	05/23/2014 21:41	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141410017A	05/21/2014 16:30	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141410016A	05/21/2014 16:30	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14147001	05/30/2014 21:12	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14147001	05/27/2014 10:30	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141430637001	05/28/2014 09:03	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141430637001	05/28/2014 09:03	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141430637001	05/28/2014 09:03	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141430637001	05/28/2014 09:03	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	141430637001	05/28/2014 09:03	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141430637001	05/28/2014 09:03	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	141430637001	05/28/2014 09:03	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141430637001	05/29/2014 07:18	Joanne M Gates	2
06951	Chromium	SW-846 6010C	1	141430637001	05/28/2014 09:03	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141430637001	05/28/2014 09:03	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141430637001	05/28/2014 09:03	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141430637001	05/28/2014 09:03	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	141430637001	05/28/2014 09:03	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141430637001	05/28/2014 09:03	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141430637001	05/28/2014 09:03	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141430637001	05/28/2014 09:03	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	141430637001	05/28/2014 09:03	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	141430637001	05/28/2014 09:03	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141430637001	05/28/2014 09:03	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	141430637001	05/28/2014 09:03	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141430637001	05/28/2014 09:03	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	141430637001	05/28/2014 09:03	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-5.0 MS Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470317
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:17

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54850 SDG#: PH185-05MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010C	1	141430637001	05/28/2014 09:03	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	141430637001	05/28/2014 09:03	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141430637001	05/28/2014 09:03	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	141430637001	05/28/2014 09:03	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	141430637001B	05/28/2014 06:35	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141430637001A	05/28/2014 06:35	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141430637001A	05/28/2014 06:35	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141430637001A	05/28/2014 06:35	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141410638001	05/23/2014 09:01	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141430637001	05/27/2014 07:53	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141410638001	05/22/2014 12:50	Denise K Conners	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14142162401A	05/22/2014 20:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-5.0 MSD Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470318
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:17

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54850 SDG#: PH185-05MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	39		1.9	0.77	1
12969	Acenaphthylene	208-96-8	37		1.9	0.38	1
12969	Anthracene	120-12-7	39		1.9	0.38	1
12969	Benzo(a)anthracene	56-55-3	40		1.9	0.77	1
12969	Benzo(a)pyrene	50-32-8	35		1.9	0.77	1
12969	Benzo(b)fluoranthene	205-99-2	40		1.9	0.77	1
12969	Benzo(e)pyrene	192-97-2	32		20	3.8	1
12969	Benzo(g,h,i)perylene	191-24-2	17		1.9	0.77	1
12969	Benzo(k)fluoranthene	207-08-9	34		1.9	0.77	1
12969	Butylbenzylphthalate	85-68-7	40		21	6.9	1
12969	Di-n-butylphthalate	84-74-2	42		21	6.9	1
12969	Chrysene	218-01-9	36		1.9	0.38	1
12969	Dibenz(a,h)anthracene	53-70-3	35		1.9	0.77	1
12969	Diethylphthalate	84-66-2	33		21	6.9	1
12969	Dimethylphthalate	131-11-3	34		21	6.9	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	46		21	6.9	1
12969	Fluoranthene	206-44-0	38		1.9	0.77	1
12969	Fluorene	86-73-7	38		1.9	0.77	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	34		1.9	0.77	1
12969	1-Methylnaphthalene	90-12-0	35		1.9	0.77	1
12969	2-Methylnaphthalene	91-57-6	37		1.9	0.77	1
12969	Naphthalene	91-20-3	36		1.9	0.77	1
12969	N-Nitrosodimethylamine	62-75-9	33		1.9	0.77	1
12969	Di-n-octylphthalate	117-84-0	45		21	6.9	1
12969	Phenanthrene	85-01-8	37		1.9	0.77	1
12969	Pyrene	129-00-0	35		1.9	0.77	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	9.8		1.0	0.2	22.05
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	38	U	38	12	1
13099	Aroclor 5442	12642-23-8	38	U	38	12	1
13099	Aroclor 5460	11126-42-4	38	U	38	12	1
13099	PCB-1016	12674-11-2	180		20	3.8	1
13099	PCB-1221	11104-28-2	20	U	20	5.9	1
13099	PCB-1232	11141-16-5	20	U	20	4.7	1
13099	PCB-1242	53469-21-9	20	U	20	4.7	1
13099	PCB-1248	12672-29-6	20	U	20	3.8	1
13099	PCB-1254	11097-69-1	20	U	20	5.1	1
13099	PCB-1260	11096-82-5	200		20	4.5	1
13099	PCB-1262	37324-23-5	20	U	20	3.8	1
13099	PCB-1268	11100-14-4	20	U	20	3.8	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.6	J	5.8	2.3	1
12952	EFH (C15-C20)	n.a.	8.6		5.8	2.3	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-5.0 MSD Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470318
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:17

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54850 SDG#: PH185-05MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	14		5.8	2.3	1
12952	EFH (C30-C40)	n.a.	13		12	4.6	1
12952	EFH (C8-C11)	n.a.	5.1	J	5.8	2.3	1
13197	EFH C12-C14 w/ SiGel	n.a.	4.1	J	5.8	2.3	1
13197	EFH C15-C20 w/ SiGel	n.a.	6.2		5.8	2.3	1
13197	EFH C21-C30 w/ SiGel	n.a.	10		5.8	2.3	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	J	12	4.6	1
13197	EFH C8-C11 w/ SiGel	n.a.	3.7	J	5.8	2.3	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	37,700		44.5	8.01	1
06944	Antimony	7440-36-0	19.0		4.45	0.823	1
06935	Arsenic	7440-38-2	18.8		4.45	0.778	1
06946	Barium	7440-39-3	345		1.11	0.0367	1
06947	Beryllium	7440-41-7	6.70		1.11	0.0745	1
07914	Boron	7440-42-8	234		11.1	0.934	1
06949	Cadmium	7440-43-9	4.13		1.11	0.0845	1
01650	Calcium	7440-70-2	28,900		22.2	3.71	1
06951	Chromium	7440-47-3	61.9		3.33	0.178	1
06952	Cobalt	7440-48-4	56.9		1.11	0.110	1
06953	Copper	7440-50-8	49.7		2.22	0.322	1
01654	Iron	7439-89-6	33,100		88.9	8.05	2
06955	Lead	7439-92-1	26.7		3.33	0.556	1
01656	Lithium	7439-93-2	144		4.4	0.38	1
01657	Magnesium	7439-95-4	7,810		11.1	1.86	1
06958	Manganese	7439-96-5	323		1.11	0.0923	1
06960	Molybdenum	7439-98-7	193		2.22	0.189	1
06961	Nickel	7440-02-0	67.3		2.22	0.145	1
10145	Phosphorus	7723-14-0	350		11.1	3.21	1
01662	Potassium	7440-09-7	4,560		111	9.27	1
01667	Sodium	7440-23-5	1,280		111	18.6	1
06969	Tin	7440-31-5	368		11.1	0.245	1
06970	Titanium	7440-32-6	1,710		1.11	0.189	1
06971	Vanadium	7440-62-2	131		1.11	0.145	1
06972	Zinc	7440-66-6	118		4.45	0.222	1
10146	Zirconium	7440-67-7	114		5.56	0.934	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.14		0.445	0.111	2
06142	Silver	7440-22-4	11.7		0.222	0.0289	2
06144	Strontium	7440-24-6	61.3		0.445	0.0756	2
06145	Thallium	7440-28-0	0.801		0.222	0.0333	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.199		0.0188	0.0113	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-5.0 MSD Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470318
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:17

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
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Fairfax VA 22030

54850 SDG#: PH185-05MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	14a Moisture Content by 160.3	n.a.	13.5	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-5.0 MSD Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470318
LL Group # 1475629
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Project Name: SSFL Phase 3 Sampling

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54850 SDG#: PH185-05MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	22.7	B	1.13	0.0558	1
11031	12378-PeCDD	40321-76-4	109		5.67	0.0538	1
11031	123478-HxCDD	39227-28-6	110		5.67	0.0507	1
11031	123678-HxCDD	57653-85-7	109	B	5.67	0.0510	1
11031	123789-HxCDD	19408-74-3	111	B	5.67	0.0506	1
11031	1234678-HpCDD	35822-46-9	110	B	5.67	0.0576	1
11031	OCDD	3268-87-9	211	B	11.3	0.0363	1
11031	2378-TCDF	51207-31-9	23.5		1.13	0.0490	1
11031	12378-PeCDF	57117-41-6	110	B	5.67	0.0358	1
11031	23478-PeCDF	57117-31-4	110	B	5.67	0.0386	1
11031	123478-HxCDF	70648-26-9	114	B	5.67	0.0763	1
11031	123678-HxCDF	57117-44-9	113	B	5.67	0.0615	1
11031	123789-HxCDF	72918-21-9	110	B	5.67	0.0912	1
11031	234678-HxCDF	60851-34-5	109	B	5.67	0.0704	1
11031	1234678-HpCDF	67562-39-4	107	B	5.67	0.0422	1
11031	1234789-HpCDF	55673-89-7	109	B	5.67	0.0969	1
11031	OCDF	39001-02-0	220	B	11.3	0.0522	1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	68	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	71	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	84	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	71	26 - 152
13C12-123678-HxCDF	86	26 - 123
13C12-234678-HxCDF	75	28 - 136
13C12-123789-HxCDF	64	29 - 147
13C12-1234678-HpCDF	111	28 - 143
13C12-1234789-HpCDF	55	26 - 138
13C12-OCDF	45	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-5.0 MSD Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470318
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:17

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54850 SDG#: PH185-05MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
S	*Saturation of detection signal*					

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-5.0 MSD Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470318
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:17

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54850 SDG#: PH185-05MSD

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14142SLD026	05/26/2014 18:35	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14142SLD026	05/23/2014 04:15	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14141A16A	05/22/2014 13:51	Marie D Beamenderfer	22.05
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414034557	05/20/2014 19:36	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414034557	05/20/2014 19:36	Lois E Hiltz	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141420007A	05/26/2014 05:30	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141420007A	05/22/2014 16:40	JoElla L Rice	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141410016A	05/23/2014 21:41	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141410017A	05/23/2014 22:03	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141410017A	05/21/2014 16:30	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141410016A	05/21/2014 16:30	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14147001	05/30/2014 22:09	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14147001	05/27/2014 10:30	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141430637001	05/28/2014 09:07	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141430637001	05/28/2014 09:07	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141430637001	05/28/2014 09:07	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141430637001	05/28/2014 09:07	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	141430637001	05/28/2014 09:07	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141430637001	05/28/2014 09:07	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	141430637001	05/28/2014 09:07	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141430637001	05/28/2014 09:07	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141430637001	05/28/2014 09:07	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141430637001	05/28/2014 09:07	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141430637001	05/28/2014 09:07	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141430637001	05/29/2014 07:22	Joanne M Gates	2
06955	Lead	SW-846 6010C	1	141430637001	05/28/2014 09:07	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141430637001	05/28/2014 09:07	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141430637001	05/28/2014 09:07	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141430637001	05/28/2014 09:07	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	141430637001	05/28/2014 09:07	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	141430637001	05/28/2014 09:07	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141430637001	05/28/2014 09:07	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	141430637001	05/28/2014 09:07	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141430637001	05/28/2014 09:07	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	141430637001	05/28/2014 09:07	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-5.0 MSD Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470318
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:17

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54850 SDG#: PH185-05MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010C	1	141430637001	05/28/2014 09:07	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	141430637001	05/28/2014 09:07	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141430637001	05/28/2014 09:07	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	141430637001	05/28/2014 09:07	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	141430637001B	05/28/2014 07:45	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141430637001A	05/28/2014 07:45	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141430637001A	05/28/2014 07:45	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141430637001A	05/28/2014 07:45	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141410638001	05/23/2014 09:03	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141430637001	05/27/2014 07:53	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141410638001	05/22/2014 12:50	Denise K Conners	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14142162401A	05/22/2014 20:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-5.0 DUP Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470319
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:17

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54850 SDG#: PH185-05DUP

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	28,500		45.8	8.25	1
06944	Antimony	7440-36-0	4.58	U	4.58	0.847	1
06935	Arsenic	7440-38-2	3.17	J	4.58	0.801	1
06946	Barium	7440-39-3	121		1.14	0.0378	1
06947	Beryllium	7440-41-7	0.959	J	1.14	0.0767	1
07914	Boron	7440-42-8	13.1		11.4	0.961	1
06949	Cadmium	7440-43-9	1.14	U	1.14	0.0870	1
01650	Calcium	7440-70-2	40,500		22.9	3.82	1
06951	Chromium	7440-47-3	34.5		3.43	0.183	1
06952	Cobalt	7440-48-4	8.96		1.14	0.113	1
06953	Copper	7440-50-8	18.7		2.29	0.332	1
01654	Iron	7439-89-6	30,600		91.6	8.29	2
06955	Lead	7439-92-1	13.8		3.43	0.572	1
01656	Lithium	7439-93-2	25.4		4.6	0.39	1
01657	Magnesium	7439-95-4	6,820		11.4	1.91	1
06958	Manganese	7439-96-5	353		1.14	0.0950	1
06960	Molybdenum	7439-98-7	2.29	U	2.29	0.195	1
06961	Nickel	7440-02-0	17.6		2.29	0.149	1
10145	Phosphorus	7723-14-0	239		11.4	3.31	1
01662	Potassium	7440-09-7	2,720		114	9.55	1
01667	Sodium	7440-23-5	161		114	19.1	1
06969	Tin	7440-31-5	3.16	J	11.4	0.252	1
06970	Titanium	7440-32-6	1,010		1.14	0.195	1
06971	Vanadium	7440-62-2	60.7		1.14	0.149	1
06972	Zinc	7440-66-6	62.2		4.58	0.229	1
10146	Zirconium	7440-67-7	6.57		5.72	0.961	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.458	U	0.458	0.114	2
06142	Silver	7440-22-4	0.0649	J	0.229	0.0298	2
06144	Strontium	7440-24-6	52.2		0.458	0.0778	2
06145	Thallium	7440-28-0	0.339		0.229	0.0343	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0129	J	0.0186	0.0111	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.21		0.0100	0.0100	1
	The pH was measured in water at 21.7 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	13.5		0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	12.4		0.10	0.10	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-5.0 DUP Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470319
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:17

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54850 SDG#: PH185-05DUP

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010C	1	141430637001	05/28/2014 08:59	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141430637001	05/28/2014 08:59	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141430637001	05/28/2014 08:59	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141430637001	05/28/2014 08:59	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	141430637001	05/28/2014 08:59	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141430637001	05/28/2014 08:59	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	141430637001	05/28/2014 08:59	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141430637001	05/28/2014 08:59	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141430637001	05/28/2014 08:59	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141430637001	05/28/2014 08:59	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141430637001	05/28/2014 08:59	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141430637001	05/29/2014 07:14	Joanne M Gates	2
06955	Lead	SW-846 6010C	1	141430637001	05/28/2014 08:59	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141430637001	05/28/2014 08:59	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141430637001	05/28/2014 08:59	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141430637001	05/28/2014 08:59	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	141430637001	05/28/2014 08:59	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	141430637001	05/28/2014 08:59	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141430637001	05/28/2014 08:59	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	141430637001	05/28/2014 08:59	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141430637001	05/28/2014 08:59	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	141430637001	05/28/2014 08:59	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	141430637001	05/28/2014 08:59	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	141430637001	05/28/2014 08:59	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141430637001	05/28/2014 08:59	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	141430637001	05/28/2014 08:59	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	141430637001B	05/28/2014 06:33	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141430637001A	05/28/2014 06:33	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141430637001A	05/28/2014 06:33	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141430637001A	05/28/2014 06:33	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141410638001	05/23/2014 08:59	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141430637001	05/27/2014 07:53	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141410638001	05/22/2014 12:50	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14140039402A	05/20/2014 20:20	Luz M Groff	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14142162401A	05/22/2014 20:29	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	14142162401A	05/22/2014 20:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-10.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470320
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:09

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54810 SDG#: PH185-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.9	U	1.9	0.76	1
12969	Acenaphthylene	208-96-8	1.9	U	1.9	0.38	1
12969	Anthracene	120-12-7	1.9	U	1.9	0.38	1
12969	Benzo(a)anthracene	56-55-3	1.9	U	1.9	0.76	1
12969	Benzo(a)pyrene	50-32-8	1.9	U	1.9	0.76	1
12969	Benzo(b)fluoranthene	205-99-2	1.9	U	1.9	0.76	1
12969	Benzo(e)pyrene	192-97-2	19	U	19	3.8	1
12969	Benzo(g,h,i)perylene	191-24-2	1.9	U	1.9	0.76	1
12969	Benzo(k)fluoranthene	207-08-9	1.9	U	1.9	0.76	1
12969	Butylbenzylphthalate	85-68-7	21	U	21	6.9	1
12969	Di-n-butylphthalate	84-74-2	21	U	21	6.9	1
12969	Chrysene	218-01-9	1.9	U	1.9	0.38	1
12969	Dibenz(a,h)anthracene	53-70-3	1.9	U	1.9	0.76	1
12969	Diethylphthalate	84-66-2	21	U	21	6.9	1
12969	Dimethylphthalate	131-11-3	21	U	21	6.9	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	21	U	21	6.9	1
12969	Fluoranthene	206-44-0	1.9	U	1.9	0.76	1
12969	Fluorene	86-73-7	1.9	U	1.9	0.76	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.9	U	1.9	0.76	1
12969	1-Methylnaphthalene	90-12-0	1.9	U	1.9	0.76	1
12969	2-Methylnaphthalene	91-57-6	1.9	U	1.9	0.76	1
12969	Naphthalene	91-20-3	1.9	U	1.9	0.76	1
12969	N-Nitrosodimethylamine	62-75-9	1.9	U	1.9	0.76	1
12969	Di-n-octylphthalate	117-84-0	21	U	21	6.9	1
12969	Phenanthrene	85-01-8	1.9	U	1.9	0.76	1
12969	Pyrene	129-00-0	1.9	U	1.9	0.76	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1	U	1	0.2	20.97
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	38	U	38	11	1
13099	Aroclor 5442	12642-23-8	38	U	38	11	1
13099	Aroclor 5460	11126-42-4	38	U	38	11	1
13099	PCB-1016	12674-11-2	19	U	19	3.8	1
13099	PCB-1221	11104-28-2	19	U	19	5.8	1
13099	PCB-1232	11141-16-5	19	U	19	4.7	1
13099	PCB-1242	53469-21-9	19	U	19	4.7	1
13099	PCB-1248	12672-29-6	19	U	19	3.8	1
13099	PCB-1254	11097-69-1	19	U	19	5.0	1
13099	PCB-1260	11096-82-5	19	U	19	4.5	1
13099	PCB-1262	37324-23-5	19	U	19	3.8	1
13099	PCB-1268	11100-14-4	19	U	19	3.8	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.7	U	5.7	2.3	1
12952	EFH (C15-C20)	n.a.	5.7	U	5.7	2.3	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-10.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470320
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:09

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54810 SDG#: PH185-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.7	U	5.7	2.3	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.6	1
12952	EFH (C8-C11)	n.a.	5.7	U	5.7	2.3	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.7	U	5.7	2.3	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.7	U	5.7	2.3	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.7	U	5.7	2.3	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.6	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.7	U	5.7	2.3	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	22,900		44.5	8.02	1
06944	Antimony	7440-36-0	4.45	U	4.45	0.823	1
06935	Arsenic	7440-38-2	3.82	J	4.45	0.778	1
06946	Barium	7440-39-3	93.0		1.11	0.0367	1
06947	Beryllium	7440-41-7	0.822	J	1.11	0.0745	1
07914	Boron	7440-42-8	10.9	J	11.1	0.934	1
06949	Cadmium	7440-43-9	1.11	U	1.11	0.0845	1
01650	Calcium	7440-70-2	27,900		22.2	3.71	1
06951	Chromium	7440-47-3	27.0		3.34	0.178	1
06952	Cobalt	7440-48-4	6.40		1.11	0.110	1
06953	Copper	7440-50-8	14.7		2.22	0.323	1
01654	Iron	7439-89-6	25,700		44.5	4.03	1
06955	Lead	7439-92-1	10.0		3.34	0.556	1
01656	Lithium	7439-93-2	25.8		4.4	0.38	1
01657	Magnesium	7439-95-4	5,460		11.1	1.86	1
06958	Manganese	7439-96-5	308		1.11	0.0923	1
06960	Molybdenum	7439-98-7	2.22	U	2.22	0.189	1
06961	Nickel	7440-02-0	16.1		2.22	0.145	1
10145	Phosphorus	7723-14-0	227		11.1	3.21	1
01662	Potassium	7440-09-7	2,360		111	9.28	1
01667	Sodium	7440-23-5	129		111	18.6	1
06969	Tin	7440-31-5	3.24	J	11.1	0.245	1
06970	Titanium	7440-32-6	1,090		1.11	0.189	1
06971	Vanadium	7440-62-2	50.0		1.11	0.145	1
06972	Zinc	7440-66-6	57.1		4.45	0.222	1
10146	Zirconium	7440-67-7	5.45	J	5.56	0.934	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.445	U	0.445	0.111	2
06142	Silver	7440-22-4	0.0543	J	0.222	0.0289	2
06144	Strontium	7440-24-6	44.9		0.445	0.0756	2
06145	Thallium	7440-28-0	0.305		0.222	0.0334	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0163	J	0.0190	0.0114	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-10.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470320
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:09

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54810 SDG#: PH185-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D	n.a.	8.12	0.0100	0.0100	1
	The pH was measured in water at 22.1 C.					
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	12.7	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-10.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470320
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:09

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54810 SDG#: PH185-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0380	JB	1.14	0.0281	1
11031	12378-PeCDD	40321-76-4	0.0744	JQ	5.69	0.0255	1
11031	123478-HxCDD	39227-28-6	5.69	U	5.69	0.0179	1
11031	123678-HxCDD	57653-85-7	0.0283	JBQ	5.69	0.0186	1
11031	123789-HxCDD	19408-74-3	0.0296	JBQ	5.69	0.0186	1
11031	1234678-HpCDD	35822-46-9	0.107	JBQ	5.69	0.0160	1
11031	OCDD	3268-87-9	0.401	JBQ	11.4	0.0262	1
11031	2378-TCDF	51207-31-9	0.0245	JQ	1.14	0.0217	1
11031	12378-PeCDF	57117-41-6	0.0948	JBQ	5.69	0.0118	1
11031	23478-PeCDF	57117-31-4	0.0429	JBQ	5.69	0.0129	1
11031	123478-HxCDF	70648-26-9	0.0303	JBQ	5.69	0.0159	1
11031	123678-HxCDF	57117-44-9	0.0498	JBQ	5.69	0.0124	1
11031	123789-HxCDF	72918-21-9	0.0188	JBQ	5.69	0.0187	1
11031	234678-HxCDF	60851-34-5	0.0348	JB	5.69	0.0136	1
11031	1234678-HpCDF	67562-39-4	0.0422	JB	5.69	0.00498	1
11031	1234789-HpCDF	55673-89-7	0.0297	JBQ	5.69	0.0112	1
11031	OCDF	39001-02-0	0.154	JBQ	11.4	0.0284	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0419				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	72	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	83	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	83	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	62	29 - 147
13C12-1234678-HpCDF	109	28 - 143
13C12-1234789-HpCDF	56	26 - 138
13C12-OCDF	47	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-10.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470320
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:09

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54810 SDG#: PH185-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-10.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470320
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:09

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54810 SDG#: PH185-06

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14142SLD026	05/27/2014 04:06	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14142SLD026	05/23/2014 04:15	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14141A16A	05/21/2014 23:56	Marie D Beamenderfer	20.97
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414034557	05/20/2014 19:38	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414034557	05/20/2014 19:39	Lois E Hiltz	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141420007A	05/26/2014 05:48	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141420007A	05/22/2014 16:40	JoElla L Rice	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141410016A	05/23/2014 22:03	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141410017A	05/23/2014 22:25	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141410017A	05/21/2014 16:30	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141410016A	05/21/2014 16:30	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14147001	05/31/2014 05:57	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14147001	05/27/2014 10:30	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-548-SA8-TR-10.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7470320
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 13:09

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54810 SDG#: PH185-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	141430637001	05/28/2014 09:37	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	141430637001B	05/28/2014 06:52	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141430637001A	05/28/2014 06:52	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141430637001A	05/28/2014 06:52	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141430637001A	05/28/2014 06:52	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141410638001	05/23/2014 09:05	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141430637001	05/27/2014 07:53	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141410638001	05/22/2014 12:50	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14140039402A	05/20/2014 20:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14142162401A	05/22/2014 20:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: TB2-051914 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7470321
LL Group # 1475629
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/19/2014 08:00

Submitted: 05/20/2014 09:45
Reported: 06/02/2014 13:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB219 SDG#: PH185-07TB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14142A94A	05/27/2014 14:10	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14142A94A	05/27/2014 14:10	Marie D Beamenderfer	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475629
Reported: 06/02/14 at 01:39 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14142SLD026	Sample number(s): 7470312-7470318,7470320									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	105		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	102		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	108		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	113		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	99		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	109		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	88		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	100		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	99		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	110		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	110		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	100		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	104		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	91		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	93		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	118		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	109		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	105		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	101		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	96		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	102		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	98		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	96		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	117		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	103		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	99		80-119		
Batch number: 14141A16A	Sample number(s): 7470313,7470315-7470318,7470320									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	80		67-120		
Batch number: 14142A94A	Sample number(s): 7470321									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	109	111	80-133	2	30
Batch number: 141420007A	Sample number(s): 7470312-7470318,7470320									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	84	87	36-106	3	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	95		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475629
Reported: 06/02/14 at 01:39 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1260	17	U	17.	3.9	ug/kg	102		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141410016A	Sample number(s): 7470312-7470318,7470320									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	117*		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	120		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	119		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	66		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	91		60-115		
Batch number: 141410017A	Sample number(s): 7470312-7470318,7470320									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	71*		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	74*		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	73*		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	53		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	57*		60-115		
Batch number: 141410638001	Sample number(s): 7470312-7470320									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	96		85-120		
Batch number: 141430637001	Sample number(s): 7470312-7470320									
Aluminum	40.0	U	40.0	7.21	mg/kg	106		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	107		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	106		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	102		80-120		
Boron	10.0	U	10.0	0.840	mg/kg	100		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	104		80-120		
Calcium	7.84	J	20.0	3.34	mg/kg	102		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	103		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	105		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	106		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	104		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	103		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	106		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	100		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	103		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	103		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	108		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	105		80-120		
Potassium	100 U		100.	8.34	mg/kg	102		80-120		
Sodium	100 U		100.	16.7	mg/kg	103		80-120		
Tin	1.46	J	10.0	0.220	mg/kg	102		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	106		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	103		80-120		
Zinc	0.461	J	4.00	0.200	mg/kg	103		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	104		80-120		
Batch number: 141430637001A	Sample number(s): 7470312-7470320									
Silver	0.200	U	0.200	0.0260	mg/kg	106		80-120		
Strontium	0.400	U	0.400	0.0680	mg/kg	100		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	106		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475629
Reported: 06/02/14 at 01:39 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 141430637001B	Sample number(s): 7470312-7470320									
Selenium	0.400	U	0.400	0.100	mg/kg	106		80-120		
Batch number: 14140039402A	Sample number(s): 7470312-7470316,7470319-7470320									
15a pH by 9045D						100		90-110		
Batch number: 14142162401A	Sample number(s): 7470312-7470320									
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14147001	Sample number(s): 7470312-7470318,7470320									
2378-TCDD	0.0397	J	1.00	0.0262	ng/kg	99		67-158		
12378-PeCDD	5.00	U	5.00	0.0220	ng/kg	97		70-142		
123478-HxCDD	5.00	U	5.00	0.0136	ng/kg	94		70-164		
123678-HxCDD	0.0211	J	5.00	0.0139	ng/kg	92		76-134		
123789-HxCDD	0.0209	J	5.00	0.0144	ng/kg	95		64-162		
1234678-HpCDD	0.0514	J	5.00	0.0152	ng/kg	97		70-140		
OCDD	0.217	J	10.0	0.0156	ng/kg	92		78-144		
2378-TCDF	1.00	U	1.00	0.0207	ng/kg	100		75-158		
12378-PeCDF	0.0315	J	5.00	0.0107	ng/kg	95		80-134		
23478-PeCDF	0.0159	J	5.00	0.0116	ng/kg	96		68-160		
123478-HxCDF	0.0282	J	5.00	0.0107	ng/kg	98		72-134		
123678-HxCDF	0.0254	J	5.00	0.00903	ng/kg	95		84-130		
123789-HxCDF	0.0446	J	5.00	0.0106	ng/kg	93		78-130		
234678-HxCDF	0.0380	J	5.00	0.0100	ng/kg	93		70-156		
1234678-HpCDF	0.0453	J	5.00	0.00589	ng/kg	92		82-122		
1234789-HpCDF	0.0269	J	5.00	0.0123	ng/kg	97		78-138		
OCDF	0.125	J	10.0	0.0252	ng/kg	95		63-170		
TEQ WHO 2005 - EDLx0.0	0.00728				ng/kg					

Sample Matrix Quality Control

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Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14142SLD026	Sample number(s): 7470312-7470318,7470320 UNSPK: 7470316								
Acenaphthene	105	100	48-127	5	30				
Acenaphthylene	102	97	60-128	5	30				
Anthracene	106	100	52-126	6	30				
Benzo(a)anthracene	104	103	44-143	0	30				
Benzo(a)pyrene	93	92	49-137	2	30				
Benzo(b)fluoranthene	107	105	26-142	2	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475629
Reported: 06/02/14 at 01:39 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Benzo(e)pyrene	85	83	63-111	2	30				
Benzo(g,h,i)perylene	86	43	33-141	65*	30				
Benzo(k)fluoranthene	92	89	49-144	3	30				
Butylbenzylphthalate	103	104	64-156	1	30				
Di-n-butylphthalate	111	108	52-147	2	30				
Chrysene	97	93	43-141	4	30				
Dibenz(a,h)anthracene	96	91	25-145	5	30				
Diethylphthalate	90	87	66-140	3	30				
Dimethylphthalate	93	89	70-123	5	30				
Bis(2-Ethylhexyl)phthalate	118	119	48-164	1	30				
Fluoranthene	105	100	38-153	4	30				
Fluorene	103	98	57-130	5	30				
Indeno(1,2,3-cd)pyrene	93	88	26-139	6	30				
1-Methylnaphthalene	95	92	59-139	3	30				
2-Methylnaphthalene	100	96	46-147	4	30				
Naphthalene	97	93	52-136	5	30				
N-Nitrosodimethylamine	91	85	39-134	7	30				
Di-n-octylphthalate	115	116	52-162	1	30				
Phenanthrene	102	96	50-137	6	30				
Pyrene	94	91	26-143	3	30				
Batch number: 14141A16A	Sample number(s): 7470313,7470315-7470318,7470320 UNSPK: 7470316								
11a TPH by EPA 8015B GRO	80	87	69-123	15	30				
Batch number: 141420007A	Sample number(s): 7470312-7470318,7470320 UNSPK: 7470316								
PCB-1016	94	95	41-135	1	50				
PCB-1260	101	102	40-134	0	50				
Batch number: 141410016A	Sample number(s): 7470312-7470318,7470320 UNSPK: 7470316								
EFH (C12-C14)	108	96	49-123	12	20				
EFH (C15-C20)	112	99	49-123	12	20				
EFH (C21-C30)	115	98	49-123	16	20				
EFH (C30-C40)	114	75	49-123	42*	20				
EFH (C8-C11)	90	88	49-123	2	20				
Batch number: 141410017A	Sample number(s): 7470312-7470318,7470320 UNSPK: 7470316								
EFH C12-C14 w/ SiGel	72	70	49-123	3	20				
EFH C15-C20 w/ SiGel	74	71	49-123	4	20				
EFH C21-C30 w/ SiGel	73	71	49-123	3	20				
EFH C30-C40 w/ SiGel	62	58	49-123	7	20				
EFH C8-C11 w/ SiGel	60	64	49-123	5	20				
Batch number: 141410638001	Sample number(s): 7470312-7470320 UNSPK: 7470316 BKG: 7470316								
3a Mercury 7471A	96	99	65-135	4	20	0.0110 J	0.0111 J	1 (1)	20
Batch number: 141430637001	Sample number(s): 7470312-7470320 UNSPK: 7470316 BKG: 7470316								
Aluminum	2456 (2)	3885 (2)	75-125	8	20	25,100	24,700	2	20
Antimony	41*	34*	75-125	20	20	3.92 U	3.96 U	0 (1)	20
Arsenic	105	95	75-125	10	20	2.52 J	2.75 J	9 (1)	20
Barium	93	100	75-125	3	20	106	104	2	20
Beryllium	100	103	75-125	1	20	0.865 J	0.830 J	4 (1)	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475629
Reported: 06/02/14 at 01:39 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Boron	99	100	75-125	1	20	10.9	11.3	3 (1)	20
Cadmium	80	74*	75-125	9	20	0.980 U	0.990 U	0 (1)	20
Calcium	11145 (2)	2442 (2)	75-125	81*	20	15,600	35,000	77*	20
Chromium	100	119	75-125	6	20	30.6	29.8	3	20
Cobalt	88	90	75-125	0	20	6.06	7.75	24*	20
Copper	104	110	75-125	3	20	16.5	16.1	2	20
Iron	-1341 (2)	1088 (2)	75-125	9	20	27,600	26,500	4	20
Lead	72*	81	75-125	5	20	11.4	11.9	5 (1)	20
Lithium	103	106	75-125	1	20	22.6	22.0	3	20
Magnesium	13 (2)	323 (2)	75-125	9	20	6,130	5,900	4	20
Manganese	95 (2)	112 (2)	75-125	2	20	226	305	30*	20
Molybdenum	86	87	75-125	2	20	1.96 U	1.98 U	0 (1)	20
Nickel	86	90	75-125	2	20	14.8	15.2	3	20
Phosphorus	104	99	75-125	2	20	208	207	0	20
Potassium	126*	164*	75-125	9	20	2,370	2,350	1	20
Sodium	99	100	75-125	1	20	141	140	1 (1)	20
Tin	82	82	75-125	2	20	2.89 J	2.74 J	6 (1)	20
Titanium	445 (2)	622 (2)	75-125	12	20	885	874	1	20
Vanadium	109	125	75-125	6	20	53.3	52.5	2	20
Zinc	87	96	75-125	4	20	55.7	53.8	3	20
Zirconium	96	97	75-125	1	20	5.22	5.69	8 (1)	20
Batch number: 141430637001A	Sample number(s): 7470312-7470320 UNSPK: 7470316 BKG: 7470316								
Silver	100	105	75-125	2	20	0.0429 J	0.0562 J	27* (1)	20
Strontium	122 (2)	153 (2)	75-125	4	20	41.3	45.1	9	20
Thallium	99	109	75-125	4	20	0.274	0.293	7 (1)	20
Batch number: 141430637001B	Sample number(s): 7470312-7470320 UNSPK: 7470316 BKG: 7470316								
Selenium	94	96	75-125	1	20	0.392 U	0.396 U	0 (1)	20
Batch number: 14140039402A	Sample number(s): 7470312-7470316,7470319-7470320 BKG: 7470316								
15a pH by 9045D						8.19	8.21	0	3
Batch number: 14142162401A	Sample number(s): 7470312-7470320 BKG: 7470316								
14a Moisture Content by 160.3						13.5	12.4	9	20
14a Moisture Content by 160.3						13.5	12.4	9	20
14a Moisture Content by 160.3						13.5	12.4	9	20
Batch number: 14147001	Sample number(s): 7470312-7470318,7470320 UNSPK: 7470316								
2378-TCDD	97	100	40-135	4	20				
12378-PeCDD	96	97	40-135	2	20				
123478-HxCDD	98	97	40-135	0	20				
123678-HxCDD	95	96	40-135	2	20				
123789-HxCDD	99	98	40-135	1	20				
1234678-HpCDD	98	97	40-135	1	20				
OCDD	94	93	40-135	0	20				
2378-TCDF	99	104	40-135	6	20				
12378-PeCDF	95	97	40-135	3	20				
23478-PeCDF	98	97	40-135	1	20				
123478-HxCDF	101	101	40-135	1	20				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475629
Reported: 06/02/14 at 01:39 PM

Sample Matrix Quality Control

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Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
123678-HxCDF	100	100	40-135	1	20				
123789-HxCDF	97	97	40-135	1	20				
234678-HxCDF	98	96	40-135	0	20				
1234678-HpCDF	97	94	40-135	1	20				
1234789-HpCDF	99	96	40-135	1	20				
OCDF	97	97	40-135	1	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14142SLD026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7470312	98	106	87
7470313	95	109	83
7470314	96	105	89
7470315	96	99	84
7470316	95	106	84
7470317	101	112	90
7470318	96	105	86
7470320	96	107	85
Blank	104	117	90
LCS	103	117	92
MS	101	112	90
MSD	96	105	86
Limits:	59-115	61-118	70-127

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 14141A16A

	Trifluorotoluene-F
7470313	85
7470315	83
7470316	85
7470317	87
7470318	95
7470320	84
Blank	99
LCS	100
MS	87
MSD	95
Limits:	50-142

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475629
Reported: 06/02/14 at 01:39 PM

Surrogate Quality Control

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14142A94A

	Trifluorotoluene-F
7470321	87
Blank	86
LCS	97
LCSD	94
Limits:	63-135

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141420007A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7470312	97	105
7470313	94	102
7470314	97	103
7470315	99	103
7470316	98	109
7470317	100	108
7470318	104	111
7470320	102	102
Blank	103	113
LCS	102	109
LCSD	107	113
MS	100	108
MSD	104	111
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141410016A

	Chlorobenzene	Orthoterphenyl
7470312	91	102
7470313	100	118
7470314	91	104
7470315	108	116
7470316	92	101
7470317	94	106
7470318	86	94
7470320	91	99
Blank	94	106
LCS	96	116
MS	94	106
MSD	86	94
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141410017A

	Chlorobenzene	Orthoterphenyl
7470312	67	75
7470313	70	76

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475629
Reported: 06/02/14 at 01:39 PM

Surrogate Quality Control

7470314	54	61*
7470315	50	52*
7470316	59	64*
7470317	65	72
7470318	66	72
7470320	51	51*
Blank	76	83
LCS	62	72
MS	65	72
MSD	66	72
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 14147001

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7470312	67	73	80	81	80	83
7470313	65	73	78	78	77	83
7470314	72	80	82	82	82	87
7470315	70	81	83	82	80	86
7470316	66	70	71	73	72	68
7470317	74	80	83	84	83	83
7470318	68	78	83	83	82	80
7470320	71	76	81	80	78	79
Blank	72	78	83	84	83	85
MS	74	80	83	84	83	83
MSD	68	78	83	83	82	80
OPR	74	84	87	86	86	88
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7470312	77	63	81	69	71	86
7470313	74	60	82	67	66	81
7470314	80	67	89	76	71	83
7470315	76	65	87	74	69	85
7470316	62	64	76	66	66	77
7470317	75	72	88	76	75	86
7470318	71	64	84	72	71	86
7470320	72	67	83	69	69	83
Blank	80	65	81	69	66	80
MS	75	72	88	76	75	86
MSD	71	64	84	72	71	86
OPR	89	64	84	75	68	82
Limits:	17-157	24-169	24-185	21-178	26-152	26-123

	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF
7470312	74	62	119	60	51
7470313	70	72	118	53	43
7470314	73	79	124	60	50
7470315	73	64	122	53	44
7470316	68	60	93	52	43

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Quality Control Summary

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Reported: 06/02/14 at 01:39 PM

Surrogate Quality Control

7470317	77	84	107	64	56
7470318	75	64	111	55	45
7470320	72	62	109	56	47
Blank	70	73	108	59	53
MS	77	84	107	64	56
MSD	75	64	111	55	45
OPR	74	72	111	64	59
Limits:	28-136	29-147	28-143	26-138	17-157

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Analysis Request/ Environmental Services Chain of Custody

Lancaster Laboratories

For Lancaster Laboratories use only
Acct. # 13013 Group# 1475629 Sample # 7470312-21

COC # 213662

Please print. Instructions on reverse side correspond with circled numbers.

For Lab Use Only
FSC: _____
SCR#: _____

(1)
Client: CDMSmith Acct. #: _____
Project Name/#: SSFL PWSID #: _____
Project Manager: John Wondolleck P.O.#: _____
Sampler: _____ Quote #: _____
Name of state where samples were collected: CA

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 O=Other

(6) Temperature of samples upon receipt (if requested)

(2) Sample Identification	Date Collected	Time Collected	(3) Grab	(3) Composite	Matrix (4) Soil	Matrix (4) Water	Matrix (4) Other	Total # of Containers	(5) Analyses Requested: Metals + Hg EPA 6010, 6020, 7471	PAH 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	pH 9045	TPH-GRO 9015	TPH-EFH 8015			Remarks
SL-534-SA8-TR-0.5	05/19/14	09:10	X		X			2	X	X	X	X	X		X			
SL-534-SA8-TR-5.0	05/19/14	09:40	X		X			4	X	X	X	X	X	X	X			
SL-548-SA8-TR-0.5	05/19/14	1337	X		X			2	X	X	X	X	X		X			
SL-848-SA8-TR-5.0	05/19/14	1322	X		X			4	X	X	X	X	X	X	X			
SL-548-SA8-TR-5.0MS	05/19/14	1317	X		X			10	X	X	X	X	X	X	X			MS/MSD
SL-548-SA8-TR-10.0	05/19/14	1309	X		X			4	X	X	X	X	X	X	X			
TB2-051914	05/19/14	0900				X		3						X				

(7) **Turnaround Time Requested** (TAT) (please circle): (Normal) Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed: 10 day
Rush results requested by (please circle): Phone Fax E-mail
Phone #: _____ Fax #: _____
E-mail address: _____

(8) **Data Package Options** (please circle if required)
Type I (validation/NJ Reg)
Type II (Tier II)
Type III (Reduced NJ)
Type IV (CLP SOW)
Type VI (Raw Data Only)
TX TRRP-13
MA MCP CT RCP
SDG Complete? Yes (No)
Site-specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Internal COC Required? Yes / No

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	05/19/14	1600			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by: [signature]	5/20/14	945

Airbill #: 7700 2994 1000 Cooler 2 Trenching 1 of 1 ~~2 of 2~~ SMS 9/14

2102.03

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 14971

Group Number(s): 1475629

Client: CDM

SSFL

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/20/2014 9:45
Number of Packages:	2	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Brandy Barclay (2299) at 10:19 on 05/20/2014

Samples Chilled Details: SSFL

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT146	1.2	DT	Wet	Y	Bagged	N	N
2	DT146	0.8	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

May 28, 2014

Project: SSFL Phase 3 Sampling

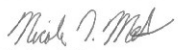
Submittal Date: 05/21/2014
Group Number: 1475898
SDG: PH186
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB2-052014 Water	7471511
SVL-525-SA5C-SB-10.0-11.0 Soil	7471512
SVL-525-SA5C-SB-15.0-16.0 Soil	7471513
SVL-531-SA5C-SB-2.5-2.9 Soil	7471514
SVL-525-SA5C-SB-5.0-6.0 Soil	7471515

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,



Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: TB2-052014 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7471511
LL Group # 1475898
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 08:00

Submitted: 05/21/2014 09:50
Reported: 05/28/2014 13:16

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB2-- SDG#: PH186-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	5	U	5	0.5	1
10335	Benzene	71-43-2	5	U	5	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	5	U	5	0.5	1
10335	Bromoform	75-25-2	5	U	5	0.5	1
10335	Bromomethane	74-83-9	5	U	5	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	5	U	5	0.5	1
10335	Chlorobenzene	108-90-7	5	U	5	0.5	1
10335	Chloroethane	75-00-3	5	U	5	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	5	U	5	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	5	U	5	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	5	U	5	0.5	1
10335	1,2-Dibromoethane	106-93-4	5	U	5	0.5	1
10335	Dibromomethane	74-95-3	5	U	5	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	5	U	5	0.5	1
10335	1,1-Dichloroethane	75-34-3	5	U	5	0.5	1
10335	1,2-Dichloroethane	107-06-2	5	U	5	0.5	1
10335	1,1-Dichloroethene	75-35-4	5	U	5	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.5	1
10335	1,2-Dichloropropane	78-87-5	5	U	5	0.5	1
10335	1,3-Dichloropropane	142-28-9	5	U	5	0.5	1
10335	2,2-Dichloropropane	594-20-7	5	U	5	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.5	1
10335	Ethyl t-butyl ether	637-92-3	5	U	5	0.5	1
10335	Ethylbenzene	100-41-4	5	U	5	0.5	1
10335	Freon 113	76-13-1	5	U	5	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: TB2-052014 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7471511
LL Group # 1475898
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 08:00

Submitted: 05/21/2014 09:50
Reported: 05/28/2014 13:16

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB2-- SDG#: PH186-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	5	U	5	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	5	U	5	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	5	U	5	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.5	1
10335	Tetrachloroethene	127-18-4	5	U	5	0.5	1
10335	Toluene	108-88-3	5	U	5	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	5	U	5	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	5	U	5	0.5	1
10335	Trichloroethene	79-01-6	5	U	5	0.5	1
10335	Trichlorofluoromethane	75-69-4	5	U	5	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	5	U	5	0.5	1
10335	m+p-Xylene	179601-23-1	5	U	5	0.5	1
10335	o-Xylene	95-47-6	5	U	5	0.5	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: chlorotrifluoroethene.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141471AA	05/27/2014 12:25	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141471AA	05/27/2014 12:25	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-525-SA5C-SB-10.0-11.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7471512
LL Group # 1475898
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 11:49 by VV

Submitted: 05/21/2014 09:50
Reported: 05/28/2014 13:16

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52510 SDG#: PH186-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	20	U	20	7	0.85
10237	Acrolein	107-02-8	100	U	100	20	0.85
10237	Acrylonitrile	107-13-1	20	U	20	4	0.85
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.85
10237	Benzene	71-43-2	5	U	5	0.5	0.85
10237	Bromobenzene	108-86-1	5	U	5	1	0.85
10237	Bromochloromethane	74-97-5	5	U	5	1	0.85
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.85
10237	Bromoform	75-25-2	5	U	5	1	0.85
10237	Bromomethane	74-83-9	5	U	5	2	0.85
10237	2-Butanone	78-93-3	10	U	10	4	0.85
10237	t-Butyl alcohol	75-65-0	51	U	51	20	0.85
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.85
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.85
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.85
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.85
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.85
10237	Chlorobenzene	108-90-7	5	U	5	1	0.85
10237	Chloroethane	75-00-3	5	U	5	2	0.85
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.85
10237	Chloroform	67-66-3	5	U	5	1	0.85
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.85
10237	Chloromethane	74-87-3	5	U	5	2	0.85
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.85
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.85
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.85
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.85
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.85
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.85
10237	Dibromomethane	74-95-3	5	U	5	1	0.85
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.85
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.85
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.85
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.85
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.85
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.85
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.85
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.85
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.85
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.85
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.85
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.85
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.85
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.85
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.85
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.85
10237	Ethylbenzene	100-41-4	5	U	5	1	0.85
10237	Freon 113	76-13-1	5	U	5	2	0.85
10237	Freon 133a	75-88-7	5	U	5	2	0.85
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.85
10237	2-Hexanone	591-78-6	10	U	10	3	0.85

*=This limit was used in the evaluation of the final result

Sample Description: SVL-525-SA5C-SB-10.0-11.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7471512
LL Group # 1475898
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 11:49 by VV

Submitted: 05/21/2014 09:50
Reported: 05/28/2014 13:16

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52510 SDG#: PH186-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.85
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.85
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.85
10237	Methyl Iodide	74-88-4	5	U	5	3	0.85
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.85
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.85
10237	Methylene Chloride	75-09-2	5	U	5	2	0.85
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.85
10237	Styrene	100-42-5	5	U	5	1	0.85
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.85
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.85
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.85
10237	Toluene	108-88-3	5	U	5	1	0.85
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.85
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.85
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.85
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.85
10237	Trichloroethene	79-01-6	5	U	5	1	0.85
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.85
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.85
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.85
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.85
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.85
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.85
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.85
10237	o-Xylene	95-47-6	5	U	5	1	0.85
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	16.2		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141431AA	05/23/2014 23:56	Christopher G Torres	0.85
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201414134571	05/21/2014 16:25	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-525-SA5C-SB-10.0-11.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7471512
LL Group # 1475898
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 11:49 by VV

Submitted: 05/21/2014 09:50
Reported: 05/28/2014 13:16

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52510 SDG#: PH186-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201414134571	05/21/2014 16:24	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201414134571	05/21/2014 16:18	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14147162401A	05/27/2014 17:27	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-525-SA5C-SB-15.0-16.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7471513
LL Group # 1475898
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 11:54 by VV

Submitted: 05/21/2014 09:50
Reported: 05/28/2014 13:16

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52515 SDG#: PH186-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	20	U	20	7	0.89
10237	Acrolein	107-02-8	100	U	100	20	0.89
10237	Acrylonitrile	107-13-1	20	U	20	4	0.89
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.89
10237	Benzene	71-43-2	5	U	5	0.5	0.89
10237	Bromobenzene	108-86-1	5	U	5	1	0.89
10237	Bromochloromethane	74-97-5	5	U	5	1	0.89
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.89
10237	Bromoform	75-25-2	5	U	5	1	0.89
10237	Bromomethane	74-83-9	5	U	5	2	0.89
10237	2-Butanone	78-93-3	10	U	10	4	0.89
10237	t-Butyl alcohol	75-65-0	51	U	51	20	0.89
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.89
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.89
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.89
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.89
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.89
10237	Chlorobenzene	108-90-7	5	U	5	1	0.89
10237	Chloroethane	75-00-3	5	U	5	2	0.89
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.89
10237	Chloroform	67-66-3	5	U	5	1	0.89
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.89
10237	Chloromethane	74-87-3	5	U	5	2	0.89
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.89
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.89
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.89
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.89
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.89
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.89
10237	Dibromomethane	74-95-3	5	U	5	1	0.89
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.89
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.89
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.89
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.89
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.89
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.89
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.89
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.89
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.89
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.89
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.89
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.89
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.89
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.89
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.89
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.89
10237	Ethylbenzene	100-41-4	5	U	5	1	0.89
10237	Freon 113	76-13-1	5	U	5	2	0.89
10237	Freon 133a	75-88-7	5	U	5	2	0.89
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.89
10237	2-Hexanone	591-78-6	10	U	10	3	0.89

*=This limit was used in the evaluation of the final result

Sample Description: SVL-525-SA5C-SB-15.0-16.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7471513
LL Group # 1475898
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 11:54 by VV

Submitted: 05/21/2014 09:50
Reported: 05/28/2014 13:16

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52515 SDG#: PH186-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.89
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.89
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.89
10237	Methyl Iodide	74-88-4	5	U	5	3	0.89
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.89
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.89
10237	Methylene Chloride	75-09-2	5	U	5	2	0.89
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.89
10237	Styrene	100-42-5	5	U	5	1	0.89
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.89
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.89
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.89
10237	Toluene	108-88-3	5	U	5	1	0.89
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.89
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.89
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.89
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.89
10237	Trichloroethene	79-01-6	5	U	5	1	0.89
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.89
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.89
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.89
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.89
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.89
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.89
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.89
10237	o-Xylene	95-47-6	5	U	5	1	0.89
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	12.1		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141431AA	05/24/2014 00:18	Christopher G Torres	0.89
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201414134571	05/21/2014 16:25	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-525-SA5C-SB-15.0-16.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7471513
LL Group # 1475898
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 11:54 by VV

Submitted: 05/21/2014 09:50
Reported: 05/28/2014 13:16

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52515 SDG#: PH186-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201414134571	05/21/2014 16:25	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201414134571	05/21/2014 16:20	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14147162401A	05/27/2014 17:27	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-531-SA5C-SB-2.5-2.9 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7471514
LL Group # 1475898
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 14:05 by VV

Submitted: 05/21/2014 09:50
Reported: 05/28/2014 13:16

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53125 SDG#: PH186-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	20	U	20	7	0.93
10237	Acrolein	107-02-8	100	U	100	20	0.93
10237	Acrylonitrile	107-13-1	20	U	20	4	0.93
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.93
10237	Benzene	71-43-2	5	U	5	0.5	0.93
10237	Bromobenzene	108-86-1	5	U	5	1	0.93
10237	Bromochloromethane	74-97-5	5	U	5	1	0.93
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.93
10237	Bromoform	75-25-2	5	U	5	1	0.93
10237	Bromomethane	74-83-9	5	U	5	2	0.93
10237	2-Butanone	78-93-3	10	U	10	4	0.93
10237	t-Butyl alcohol	75-65-0	51	U	51	20	0.93
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.93
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.93
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.93
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.93
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.93
10237	Chlorobenzene	108-90-7	5	U	5	1	0.93
10237	Chloroethane	75-00-3	5	U	5	2	0.93
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.93
10237	Chloroform	67-66-3	5	U	5	1	0.93
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.93
10237	Chloromethane	74-87-3	5	U	5	2	0.93
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.93
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.93
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.93
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.93
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.93
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.93
10237	Dibromomethane	74-95-3	5	U	5	1	0.93
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.93
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.93
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.93
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.93
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.93
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.93
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.93
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.93
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.93
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.93
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.93
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.93
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.93
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.93
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.93
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.93
10237	Ethylbenzene	100-41-4	5	U	5	1	0.93
10237	Freon 113	76-13-1	5	U	5	2	0.93
10237	Freon 133a	75-88-7	5	U	5	2	0.93
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.93
10237	2-Hexanone	591-78-6	10	U	10	3	0.93

*=This limit was used in the evaluation of the final result

Sample Description: SVL-531-SA5C-SB-2.5-2.9 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7471514
LL Group # 1475898
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 14:05 by VV

Submitted: 05/21/2014 09:50
Reported: 05/28/2014 13:16

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53125 SDG#: PH186-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.93
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.93
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.93
10237	Methyl Iodide	74-88-4	5	U	5	3	0.93
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.93
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.93
10237	Methylene Chloride	75-09-2	5	U	5	2	0.93
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.93
10237	Styrene	100-42-5	5	U	5	1	0.93
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.93
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.93
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.93
10237	Toluene	108-88-3	5	U	5	1	0.93
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.93
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.93
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.93
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.93
10237	Trichloroethene	79-01-6	5	U	5	1	0.93
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.93
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.93
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.93
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.93
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.93
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.93
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.93
10237	o-Xylene	95-47-6	5	U	5	1	0.93
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	8.2		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141431AA	05/24/2014 00:41	Christopher G Torres	0.93
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201414134571	05/21/2014 16:25	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-531-SA5C-SB-2.5-2.9 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7471514
LL Group # 1475898
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 14:05 by VV

Submitted: 05/21/2014 09:50
Reported: 05/28/2014 13:16

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53125 SDG#: PH186-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201414134571	05/21/2014 16:25	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201414134571	05/21/2014 16:22	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14147162401A	05/27/2014 17:27	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-525-SA5C-SB-5.0-6.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7471515
LL Group # 1475898
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 11:44 by VV

Submitted: 05/21/2014 09:50
Reported: 05/28/2014 13:16

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52550 SDG#: PH186-05*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	32		19	7	0.81
10237	Acrolein	107-02-8	94	U	94	19	0.81
10237	Acrylonitrile	107-13-1	19	U	19	4	0.81
10237	t-Amyl methyl ether	994-05-8	5	U	5	0.9	0.81
10237	Benzene	71-43-2	5	U	5	0.5	0.81
10237	Bromobenzene	108-86-1	5	U	5	0.9	0.81
10237	Bromochloromethane	74-97-5	5	U	5	0.9	0.81
10237	Bromodichloromethane	75-27-4	5	U	5	0.9	0.81
10237	Bromoform	75-25-2	5	U	5	0.9	0.81
10237	Bromomethane	74-83-9	5	U	5	2	0.81
10237	2-Butanone	78-93-3	4	J	9	4	0.81
10237	t-Butyl alcohol	75-65-0	47	U	47	19	0.81
10237	n-Butylbenzene	104-51-8	5	U	5	0.9	0.81
10237	sec-Butylbenzene	135-98-8	5	U	5	0.9	0.81
10237	tert-Butylbenzene	98-06-6	5	U	5	0.9	0.81
10237	Carbon Disulfide	75-15-0	5	U	5	0.9	0.81
10237	Carbon Tetrachloride	56-23-5	5	U	5	0.9	0.81
10237	Chlorobenzene	108-90-7	5	U	5	0.9	0.81
10237	Chloroethane	75-00-3	5	U	5	2	0.81
10237	2-Chloroethyl Vinyl Ether	110-75-8	9	U	9	2	0.81
10237	Chloroform	67-66-3	5	U	5	0.9	0.81
10237	1-Chlorohexane	544-10-5	5	U	5	0.9	0.81
10237	Chloromethane	74-87-3	5	U	5	2	0.81
10237	2-Chlorotoluene	95-49-8	5	U	5	0.9	0.81
10237	4-Chlorotoluene	106-43-4	5	U	5	0.9	0.81
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.81
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.81
10237	Dibromochloromethane	124-48-1	5	U	5	0.9	0.81
10237	1,2-Dibromoethane	106-93-4	5	U	5	0.9	0.81
10237	Dibromomethane	74-95-3	5	U	5	0.9	0.81
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	0.9	0.81
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	0.9	0.81
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	0.9	0.81
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.81
10237	1,1-Dichloroethane	75-34-3	5	U	5	0.9	0.81
10237	1,2-Dichloroethane	107-06-2	5	U	5	0.9	0.81
10237	1,1-Dichloroethene	75-35-4	5	U	5	0.9	0.81
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.9	0.81
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.9	0.81
10237	1,2-Dichloropropane	78-87-5	5	U	5	0.9	0.81
10237	1,3-Dichloropropane	142-28-9	5	U	5	0.9	0.81
10237	2,2-Dichloropropane	594-20-7	5	U	5	0.9	0.81
10237	1,1-Dichloropropene	563-58-6	5	U	5	0.9	0.81
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.9	0.81
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.9	0.81
10237	Ethyl t-butyl ether	637-92-3	5	U	5	0.9	0.81
10237	Ethylbenzene	100-41-4	5	U	5	0.9	0.81
10237	Freon 113	76-13-1	5	U	5	2	0.81
10237	Freon 133a	75-88-7	5	U	5	2	0.81
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.81
10237	2-Hexanone	591-78-6	9	U	9	3	0.81

*=This limit was used in the evaluation of the final result

Sample Description: SVL-525-SA5C-SB-5.0-6.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7471515
LL Group # 1475898
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 11:44 by VV

Submitted: 05/21/2014 09:50
Reported: 05/28/2014 13:16

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52550 SDG#: PH186-05*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	di-Isopropyl ether	108-20-3	5	U	5	0.9	0.81
10237	Isopropylbenzene	98-82-8	5	U	5	0.9	0.81
10237	p-Isopropyltoluene	99-87-6	5	U	5	0.9	0.81
10237	Methyl Iodide	74-88-4	5	U	5	3	0.81
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.81
10237	4-Methyl-2-pentanone	108-10-1	9	U	9	3	0.81
10237	Methylene Chloride	75-09-2	5	U	5	2	0.81
10237	n-Propylbenzene	103-65-1	5	U	5	0.9	0.81
10237	Styrene	100-42-5	5	U	5	0.9	0.81
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.9	0.81
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.9	0.81
10237	Tetrachloroethene	127-18-4	5	U	5	0.9	0.81
10237	Toluene	108-88-3	5	U	5	0.9	0.81
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	0.9	0.81
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	0.9	0.81
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	0.9	0.81
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	0.9	0.81
10237	Trichloroethene	79-01-6	5	U	5	0.9	0.81
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.81
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	0.9	0.81
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	0.9	0.81
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	0.9	0.81
10237	Vinyl Acetate	108-05-4	9	U	9	2	0.81
10237	Vinyl Chloride	75-01-4	5	U	5	0.9	0.81
10237	m+p-Xylene	179601-23-1	5	U	5	0.9	0.81
10237	o-Xylene	95-47-6	5	U	5	0.9	0.81
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	13.6		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141431AA	05/24/2014 01:03	Christopher G Torres	0.81
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201414134571	05/21/2014 16:25	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-525-SA5C-SB-5.0-6.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7471515
LL Group # 1475898
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 11:44 by VV

Submitted: 05/21/2014 09:50
Reported: 05/28/2014 13:16

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52550 SDG#: PH186-05*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201414134571	05/21/2014 16:25	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201414134571	05/21/2014 16:23	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14147162401A	05/27/2014 17:27	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475898
Reported: 05/28/14 at 01:16 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B141431AA	Sample number(s): 7471512-7471515								
Acetone	20 U	20.	7	ug/kg	98		41-149		
Acrolein	100 U	100.	20	ug/kg	79		50-137		
Acrylonitrile	20 U	20.	4	ug/kg	87		58-123		
t-Amyl methyl ether	5 U	5.	1	ug/kg	92		63-130		
Benzene	5 U	5.	0.5	ug/kg	97		80-120		
Bromobenzene	5 U	5.	1	ug/kg	105		78-120		
Bromochloromethane	5 U	5.	1	ug/kg	121		75-129		
Bromodichloromethane	5 U	5.	1	ug/kg	102		75-120		
Bromoform	5 U	5.	1	ug/kg	107		70-126		
Bromomethane	5 U	5.	2	ug/kg	109		32-162		
2-Butanone	10 U	10.	4	ug/kg	94		47-136		
t-Butyl alcohol	50 U	50.	20	ug/kg	118		66-133		
n-Butylbenzene	5 U	5.	1	ug/kg	97		72-120		
sec-Butylbenzene	5 U	5.	1	ug/kg	99		69-120		
tert-Butylbenzene	5 U	5.	1	ug/kg	95		75-120		
Carbon Disulfide	5 U	5.	1	ug/kg	90		63-128		
Carbon Tetrachloride	5 U	5.	1	ug/kg	113		69-130		
Chlorobenzene	5 U	5.	1	ug/kg	102		80-120		
Chloroethane	5 U	5.	2	ug/kg	102		17-171		
2-Chloroethyl Vinyl Ether	10 U	10.	2	ug/kg	83		52-134		
Chloroform	5 U	5.	1	ug/kg	113		80-120		
1-Chlorohexane	5 U	5.	1	ug/kg	93		70-130		
Chloromethane	5 U	5.	2	ug/kg	89		56-120		
2-Chlorotoluene	5 U	5.	1	ug/kg	99		78-120		
4-Chlorotoluene	5 U	5.	1	ug/kg	98		79-120		
Chlorotrifluoroethene	5 U	5.	2	ug/kg	64		22-131		
1,2-Dibromo-3-chloropropane	5 U	5.	2	ug/kg	90		50-132		
Dibromochloromethane	5 U	5.	1	ug/kg	104		77-120		
1,2-Dibromoethane	5 U	5.	1	ug/kg	102		80-120		
Dibromomethane	5 U	5.	1	ug/kg	101		75-120		
1,2-Dichlorobenzene	5 U	5.	1	ug/kg	102		80-120		
1,3-Dichlorobenzene	5 U	5.	1	ug/kg	104		80-120		
1,4-Dichlorobenzene	5 U	5.	1	ug/kg	102		80-120		
Dichlorodifluoromethane	5 U	5.	2	ug/kg	96		26-137		
1,1-Dichloroethane	5 U	5.	1	ug/kg	101		71-122		
1,2-Dichloroethane	5 U	5.	1	ug/kg	120		66-136		
1,1-Dichloroethene	5 U	5.	1	ug/kg	109		73-129		
cis-1,2-Dichloroethene	5 U	5.	1	ug/kg	101		80-120		
trans-1,2-Dichloroethene	5 U	5.	1	ug/kg	111		79-120		
1,2-Dichloropropane	5 U	5.	1	ug/kg	92		77-120		
1,3-Dichloropropane	5 U	5.	1	ug/kg	97		73-120		
2,2-Dichloropropane	5 U	5.	1	ug/kg	95		72-123		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475898
Reported: 05/28/14 at 01:16 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/kg	102		77-120		
cis-1,3-Dichloropropene	5	U	5.	1	ug/kg	91		74-120		
trans-1,3-Dichloropropene	5	U	5.	1	ug/kg	93		69-120		
Ethyl t-butyl ether	5	U	5.	1	ug/kg	90		59-134		
Ethylbenzene	5	U	5.	1	ug/kg	102		80-120		
Freon 113	5	U	5.	2	ug/kg	97		64-137		
Freon 133a	5	U	5.	2	ug/kg	98		78-120		
Hexachlorobutadiene	5	U	5.	2	ug/kg	118		46-130		
2-Hexanone	10	U	10.	3	ug/kg	83		40-129		
di-Isopropyl ether	5	U	5.	1	ug/kg	93		68-128		
Isopropylbenzene	5	U	5.	1	ug/kg	106		76-120		
p-Isopropyltoluene	5	U	5.	1	ug/kg	92		69-120		
Methyl Iodide	5	U	5.	3	ug/kg	116		72-130		
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/kg	102		69-126		
4-Methyl-2-pentanone	10	U	10.	3	ug/kg	85		43-133		
Methylene Chloride	5	U	5.	2	ug/kg	105		80-124		
n-Propylbenzene	5	U	5.	1	ug/kg	100		77-120		
Styrene	5	U	5.	1	ug/kg	103		76-120		
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/kg	106		80-120		
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/kg	91		71-123		
Tetrachloroethene	5	U	5.	1	ug/kg	107		78-120		
Toluene	5	U	5.	1	ug/kg	96		80-120		
1,2,3-Trichlorobenzene	5	U	5.	1	ug/kg	107		64-120		
1,2,4-Trichlorobenzene	5	U	5.	1	ug/kg	102		68-120		
1,1,1-Trichloroethane	5	U	5.	1	ug/kg	100		63-135		
1,1,2-Trichloroethane	5	U	5.	1	ug/kg	104		80-120		
Trichloroethene	5	U	5.	1	ug/kg	105		80-120		
Trichlorofluoromethane	5	U	5.	2	ug/kg	105		58-133		
1,2,3-Trichloropropane	5	U	5.	1	ug/kg	101		71-123		
1,2,4-Trimethylbenzene	5	U	5.	1	ug/kg	100		79-120		
1,3,5-Trimethylbenzene	5	U	5.	1	ug/kg	103		78-120		
Vinyl Acetate	10	U	10.	2	ug/kg	71		40-127		
Vinyl Chloride	5	U	5.	1	ug/kg	93		59-120		
m+p-Xylene	5	U	5.	1	ug/kg	101		80-120		
o-Xylene	5	U	5.	1	ug/kg	99		80-120		
Batch number: Y141471AA	Sample number(s): 7471511									
Acetone	20	U	20.	6	ug/l	78	84	43-149	7	30
Acrolein	100 U		100.	40	ug/l	94	89	52-129	4	30
Acrylonitrile	20	U	20.	4	ug/l	77	83	62-120	7	30
t-Amyl methyl ether	5	U	5.	0.5	ug/l	98	99	75-120	1	30
Benzene	5	U	5.	0.5	ug/l	104	105	78-120	1	30
Bromobenzene	5	U	5.	1	ug/l	103	103	80-120	0	30
Bromochloromethane	5	U	5.	1	ug/l	102	103	80-121	0	30
Bromodichloromethane	5	U	5.	0.5	ug/l	99	99	73-120	0	30
Bromoform	5	U	5.	0.5	ug/l	86	85	61-120	1	30
Bromomethane	5	U	5.	0.5	ug/l	104	105	58-120	1	30
2-Butanone	10	U	10.	3	ug/l	72	79	54-133	9	30
t-Butyl alcohol	50	U	50.	5	ug/l	97	103	75-120	7	30
n-Butylbenzene	5	U	5.	1	ug/l	100	100	68-120	0	30
sec-Butylbenzene	5	U	5.	1	ug/l	102	104	80-120	2	30
tert-Butylbenzene	5	U	5.	1	ug/l	100	103	73-120	3	30
Carbon Disulfide	5	U	5.	1	ug/l	69	68	58-126	2	30
Carbon Tetrachloride	5	U	5.	0.5	ug/l	107	109	74-130	2	30
Chlorobenzene	5	U	5.	0.5	ug/l	104	103	80-120	1	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475898
Reported: 05/28/14 at 01:16 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroethane	5 U	5.	0.5	ug/l	89	89	56-120	1	30
2-Chloroethyl Vinyl Ether	10 U	10.	2	ug/l	102	103	54-126	1	30
Chloroform	5 U	5.	0.5	ug/l	106	107	80-122	1	30
1-Chlorohexane	5 U	5.	1	ug/l	104	105	80-120	1	30
Chloromethane	5 U	5.	0.5	ug/l	118	120	63-120	2	30
2-Chlorotoluene	5 U	5.	1	ug/l	100	101	80-120	1	30
4-Chlorotoluene	5 U	5.	1	ug/l	100	101	80-120	1	30
Chlorotrifluoroethene	5 U	5.	2	ug/l	46*	48	47-120	5	30
1,2-Dibromo-3-chloropropane	5 U	5.	2	ug/l	75	83	56-120	10	30
Dibromochloromethane	5 U	5.	0.5	ug/l	101	98	72-120	3	30
1,2-Dibromoethane	5 U	5.	0.5	ug/l	100	101	76-120	1	30
Dibromomethane	5 U	5.	0.5	ug/l	98	99	80-120	1	30
1,2-Dichlorobenzene	5 U	5.	1	ug/l	101	102	80-120	1	30
1,3-Dichlorobenzene	5 U	5.	1	ug/l	101	102	80-120	1	30
1,4-Dichlorobenzene	5 U	5.	1	ug/l	103	103	80-120	1	30
Dichlorodifluoromethane	5 U	5.	0.5	ug/l	115	116	48-132	1	30
1,1-Dichloroethane	5 U	5.	0.5	ug/l	98	99	80-120	1	30
1,2-Dichloroethane	5 U	5.	0.5	ug/l	106	106	65-135	0	30
1,1-Dichloroethene	5 U	5.	0.5	ug/l	112	113	76-124	1	30
cis-1,2-Dichloroethene	5 U	5.	0.5	ug/l	105	106	80-120	1	30
trans-1,2-Dichloroethene	5 U	5.	0.5	ug/l	116	118	80-120	2	30
1,2-Dichloropropane	5 U	5.	0.5	ug/l	101	101	80-120	0	30
1,3-Dichloropropane	5 U	5.	0.5	ug/l	99	99	80-120	0	30
2,2-Dichloropropane	5 U	5.	0.5	ug/l	104	104	67-124	1	30
1,1-Dichloropropene	5 U	5.	1	ug/l	110	110	80-120	1	30
cis-1,3-Dichloropropene	5 U	5.	0.5	ug/l	96	96	80-120	0	30
trans-1,3-Dichloropropene	5 U	5.	0.5	ug/l	95	95	76-120	0	30
Ethyl t-butyl ether	5 U	5.	0.5	ug/l	97	98	74-120	1	30
Ethylbenzene	5 U	5.	0.5	ug/l	102	103	79-120	0	30
Freon 113	5 U	5.	2	ug/l	101	100	67-127	0	30
Freon 133a	5 U	5.	2	ug/l	79	82	46-152	3	30
Hexachlorobutadiene	5 U	5.	2	ug/l	100	98	51-125	2	30
2-Hexanone	10 U	10.	3	ug/l	74	80	44-126	8	30
di-Isopropyl ether	5 U	5.	0.5	ug/l	98	98	65-120	1	30
Isopropylbenzene	5 U	5.	1	ug/l	104	104	77-120	0	30
p-Isopropyltoluene	5 U	5.	1	ug/l	100	101	80-120	1	30
Methyl Iodide	5 U	5.	0.5	ug/l	105	106	75-128	1	30
Methyl Tertiary Butyl Ether	5 U	5.	0.5	ug/l	108	108	75-120	0	30
4-Methyl-2-pentanone	10 U	10.	3	ug/l	78	84	51-124	6	30
Methylene Chloride	5 U	5.	2	ug/l	116	116	80-120	0	30
n-Propylbenzene	5 U	5.	1	ug/l	102	102	80-120	0	30
Styrene	5 U	5.	1	ug/l	104	103	80-120	0	30
1,1,1,2-Tetrachloroethane	5 U	5.	0.5	ug/l	103	101	80-120	2	30
1,1,2,2-Tetrachloroethane	5 U	5.	0.5	ug/l	89	92	70-120	4	30
Tetrachloroethene	5 U	5.	0.5	ug/l	107	108	80-120	1	30
Toluene	5 U	5.	0.5	ug/l	104	104	80-120	0	30
1,2,3-Trichlorobenzene	5 U	5.	1	ug/l	102	104	58-126	2	30
1,2,4-Trichlorobenzene	5 U	5.	1	ug/l	103	104	65-120	1	30
1,1,1-Trichloroethane	5 U	5.	0.5	ug/l	96	94	66-126	1	30
1,1,2-Trichloroethane	5 U	5.	0.5	ug/l	98	100	80-120	2	30
Trichloroethene	5 U	5.	0.5	ug/l	106	109	80-120	3	30
Trichlorofluoromethane	5 U	5.	0.5	ug/l	117	115	65-130	2	30
1,2,3-Trichloropropane	5 U	5.	1	ug/l	89	94	76-120	5	30
1,2,4-Trimethylbenzene	5 U	5.	1	ug/l	103	103	74-120	0	30
1,3,5-Trimethylbenzene	5 U	5.	1	ug/l	102	104	74-120	1	30
Vinyl Acetate	10 U	10.	2	ug/l	74	74	56-135	0	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475898
Reported: 05/28/14 at 01:16 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vinyl Chloride	5	U	5.	0.5	ug/l	111	112	63-120	1	30
m+p-Xylene	5	U	5.	0.5	ug/l	102	102	80-120	0	30
o-Xylene	5	U	5.	0.5	ug/l	102	102	80-120	0	30
Batch number: 14147162401A	Sample number(s): 7471512-7471515									
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: B141431AA	Sample number(s): 7471512-7471515 UNSPK: P466839								
Acetone	129	113	31-195	11	30				
Acrolein	67	81	10-165	21	30				
Acrylonitrile	96	82	48-139	13	30				
t-Amyl methyl ether	111	94	50-132	14	30				
Benzene	123	101	55-143	17	30				
Bromobenzene	130	109	43-139	15	30				
Bromochloromethane	127	120	60-137	3	30				
Bromodichloromethane	126	104	53-136	17	30				
Bromoform	131	105	50-144	20	30				
Bromomethane	120	124	42-168	6	30				
2-Butanone	110	95	37-163	13	30				
t-Butyl alcohol	117	115	47-153	0	30				
n-Butylbenzene	117	101	30-146	12	30				
sec-Butylbenzene	131	102	33-157	22	30				
tert-Butylbenzene	125	108	41-152	13	30				
Carbon Disulfide	118	94	48-146	20	30				
Carbon Tetrachloride	152	123	51-165	18	30				
Chlorobenzene	130	102	49-135	22	30				
Chloroethane	113	117	39-152	6	30				
2-Chloroethyl Vinyl Ether	76	92	32-139	21	30				
Chloroform	144*	119	61-142	17	30				
1-Chlorohexane	104	98	70-130	4	30				
Chloromethane	98	99	36-143	4	30				
2-Chlorotoluene	123	104	42-146	14	30				
4-Chlorotoluene	122	104	39-145	13	30				
Chlorotrifluoroethene	72	76	70-130	3	30				
1,2-Dibromo-3-chloropropane	98	90	34-165	7	30				
Dibromochloromethane	129*	105	51-128	18	30				
1,2-Dibromoethane	122	99	54-129	19	30				
Dibromomethane	124	103	57-130	17	30				
1,2-Dichlorobenzene	123	108	36-133	11	30				
1,3-Dichlorobenzene	128	104	34-134	19	30				
1,4-Dichlorobenzene	122	103	35-136	14	30				
Dichlorodifluoromethane	121	122	26-151	3	30				
1,1-Dichloroethane	127	103	63-142	18	30				
1,2-Dichloroethane	149*	120	54-143	19	30				
1,1-Dichloroethene	142	117	61-149	17	30				
cis-1,2-Dichloroethene	128	105	67-135	18	30				

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475898
Reported: 05/28/14 at 01:16 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
trans-1,2-Dichloroethene	140	113	64-144	19	30				
1,2-Dichloropropane	116	97	54-144	16	30				
1,3-Dichloropropane	114	92	51-140	18	30				
2,2-Dichloropropane	129	104	53-147	19	30				
1,1-Dichloropropene	134	110	54-145	17	30				
cis-1,3-Dichloropropene	117	93	45-137	20	30				
trans-1,3-Dichloropropene	113	92	51-134	18	30				
Ethyl t-butyl ether	110	94	58-124	13	30				
Ethylbenzene	131	104	44-141	21	30				
Freon 113	142	115	56-156	18	30				
Freon 133a	101	107	61-131	4	30				
Hexachlorobutadiene	139	115	10-155	17	30				
2-Hexanone	96	81	32-160	15	30				
di-Isopropyl ether	112	94	59-133	15	30				
Isopropylbenzene	136	110	38-144	19	30				
p-Isopropyltoluene	117	100	29-152	13	30				
Methyl Iodide	148*	120	52-139	18	30				
Methyl Tertiary Butyl Ether	121	101	55-129	15	30				
4-Methyl-2-pentanone	100	83	46-139	16	30				
Methylene Chloride	188*	238*	60-149	26	30				
n-Propylbenzene	128	109	39-157	14	30				
Styrene	128	102	35-134	20	30				
1,1,1,2-Tetrachloroethane	134	106	55-139	21	30				
1,1,2,2-Tetrachloroethane	104	89	29-182	13	30				
Tetrachloroethene	151*	122	42-149	19	30				
Toluene	120	100	50-146	16	30				
1,2,3-Trichlorobenzene	111	96	10-140	12	30				
1,2,4-Trichlorobenzene	114	98	10-136	12	30				
1,1,1-Trichloroethane	131	106	52-146	19	30				
1,1,2-Trichloroethane	123	99	58-152	19	30				
Trichloroethene	132	109	53-144	17	30				
Trichlorofluoromethane	127	127	47-163	2	30				
1,2,3-Trichloropropane	120	98	36-180	18	30				
1,2,4-Trimethylbenzene	127	108	37-149	14	30				
1,3,5-Trimethylbenzene	126	110	38-150	11	30				
Vinyl Acetate	30	23	21-139	25	30				
Vinyl Chloride	104	108	50-154	6	30				
m+p-Xylene	129	104	44-137	19	30				
o-Xylene	124	99	42-137	20	30				
Batch number: 14147162401A	Sample number(s): 7471512-7471515					BKG: P471535			
14a Moisture Content by 160.3						7.2	7.3	1	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12a Volatile Organics EPA8260B

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475898
Reported: 05/28/14 at 01:16 PM

Surrogate Quality Control

Batch number: B141431AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7471512	113	101	96	93
7471513	114	104	96	97
7471514	114	101	98	96
7471515	112	100	98	94
Blank	110	100	99	97
LCS	108	106	102	105
MS	110	103	101	104
MSD	111	105	97	95
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141471AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7471511	101	99	98	96
Blank	101	100	99	96
LCS	101	99	100	100
LCSD	101	101	100	99
Limits:	86-118	80-120	88-110	86-115

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/20/2014 A-13013
CarrierName: FedEx G-1475898
AirbillNo: 770044397602 S-7471511-15

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140520-08
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc_Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488--09a	Other Analysis/Notes
TB2-052014	5/20/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																		X																	
SVL-525-SA5C-SB-10.0-11.0	5/20/14 11:49	SO	None	3 - Encore	10 day																		X																	
SVL-525-SA5C-SB-10.0-11.0	5/20/14 11:49	SO	None	1 - 4 oz glass	10 day																		X																	Soil Moisture
SVL-525-SA5C-SB-15.0-16.0	5/20/14 11:54	SO	None	3 - Encore	10 day																		X																	
SVL-525-SA5C-SB-15.0-16.0	5/20/14 11:54	SO	None	1 - 4 oz glass	10 day																		X																	Soil Moisture
SVL-531-SA5C-SB-2.5-2.9	5/20/14 14:05	SO	None	3 - Encore	10 day																		X																	
SVL-531-SA5C-SB-2.5-2.9	5/20/14 14:05	SO	None	1 - 4 oz glass	10 day																		X																	Soil Moisture
SVL-525-SA5C-SB-5.0-6.0	5/20/14 11:44	SO	None	3 - Encore	10 day																		X																	
SVL-525-SA5C-SB-5.0-6.0	5/20/14 11:44	SO	None	1 - 4 oz glass	10 day																		X																	Soil Moisture

Special Instructions:

Sampler: Van Vatthauer

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Stacy Meyer	5/20/14	1600									
									Bruce Bm	5.21.14	950

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 15127

Group Number(s): 1475898

Client: CDM

SSFL

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/21/2014 9:50
Number of Packages:	2	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	9
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	Yes		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Brandy Barclay (2299) at 11:13 on 05/21/2014

Samples Chilled Details: SSFL

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT146	1.3	DT	Wet	Y	Bagged	N	N
2	DT146	1.2	DT	Wet	Y	Bagged	N	N

Container Quantity Discrepancy Details: SSFL

Sample ID on COC	Container Qty. Received	Container Qty. on COC	Comments
FDG2-SL-874-SA5A-0.0-0.5	3	2	rec 1 4oz jar & 2 sleeves

General Comments: TB1 rec 3 vials

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 03, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/21/2014
Group Number: 1475897
SDG: PH188
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB1-052014 Water	7471503
FDG2-SL-874-SA5A-SB-0.0-0.5 Grab Soil	7471504
FDG2-SL-874-SA5A-SB-4.0-5.0 Grab Soil	7471505
FDG2-SL-874-SA5A-SB-4.0-5.0MS Grab Soil	7471506
FDG2-SL-874-SA5A-SB-4.0-5.0MSD Grab Soil	7471507
FDG2-SL-874-SA5A-SB-4.0-5.0DUP Grab Soil	7471508
FDG2-SL-1174-SA5A-SB-4.0-5.0 Grab Soil	7471509
FDG2-SL-874-SA5A-SB-12.0-13.0 Grab Soil	7471510

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: TB1-052014 Water
SSFL Phase 3 Subarea 5A

LL Sample # WW 7471503
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 08:00 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

T-B-2 SDG#: PH188-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14142A94A	05/27/2014 14:35	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14142A94A	05/27/2014 14:35	Marie D Beamenderfer	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-0.0-0.5 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471504
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 08:20 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87400 SDG#: PH188-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.70	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.70	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.70	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.70	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.70	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C21-C30)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-0.0-0.5 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471504
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 08:20 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87400 SDG#: PH188-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
13197	EFH C21-C30 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
	The reverse surrogate, capric acid, is present at <1%.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,200		41.5	7.49	1
06944	Antimony	7440-36-0	4.15	U	4.15	0.769	1
06935	Arsenic	7440-38-2	3.62	J	4.15	0.727	1
06946	Barium	7440-39-3	81.4		1.04	0.0343	1
06947	Beryllium	7440-41-7	0.430	J	1.04	0.0696	1
07914	Boron	7440-42-8	4.30	J	10.4	0.872	1
06949	Cadmium	7440-43-9	0.435	J	1.04	0.0789	1
01650	Calcium	7440-70-2	3,680		20.8	3.47	1
06951	Chromium	7440-47-3	17.6		3.12	0.166	1
06952	Cobalt	7440-48-4	4.62		1.04	0.103	1
06953	Copper	7440-50-8	6.73		2.08	0.301	1
01654	Iron	7439-89-6	18,700		41.5	3.76	1
06955	Lead	7439-92-1	4.19		3.12	0.519	1
01656	Lithium	7439-93-2	27.0		4.2	0.35	1
01657	Magnesium	7439-95-4	4,760		10.4	1.73	1
06958	Manganese	7439-96-5	274		1.04	0.0862	1
06960	Molybdenum	7439-98-7	2.08	U	2.08	0.177	1
06961	Nickel	7440-02-0	9.51		2.08	0.135	1
10145	Phosphorus	7723-14-0	362		10.4	3.00	1
01662	Potassium	7440-09-7	2,900		104	8.66	1
01667	Sodium	7440-23-5	107		104	17.3	1
06969	Tin	7440-31-5	2.49	J	10.4	0.228	1
06970	Titanium	7440-32-6	1,070		1.04	0.177	1
06971	Vanadium	7440-62-2	31.5		1.04	0.135	1
06972	Zinc	7440-66-6	52.4		4.15	0.208	1
10146	Zirconium	7440-67-7	2.83	J	5.19	0.872	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.415	U	0.415	0.104	2
06142	Silver	7440-22-4	0.208	U	0.208	0.0270	2
06144	Strontium	7440-24-6	15.7		0.415	0.0706	2
06145	Thallium	7440-28-0	0.221		0.208	0.0312	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0172	U	0.0172	0.0103	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.04		0.0100	0.0100	1
	The pH was measured in water at 21.9 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-0.0-0.5 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471504
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 08:20 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87400 SDG#: PH188-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	5.6	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-0.0-0.5 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471504
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 08:20 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87400 SDG#: PH188-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.149	JQ	1.04	0.106	1
11031	12378-PeCDD	40321-76-4	0.0940	JBQ	5.21	0.0673	1
11031	123478-HxCDD	39227-28-6	5.21	U	5.21	0.0348	1
11031	123678-HxCDD	57653-85-7	0.0631	JB	5.21	0.0335	1
11031	123789-HxCDD	19408-74-3	5.21	U	5.21	0.0334	1
11031	1234678-HpCDD	35822-46-9	0.270	JBQ	5.21	0.0491	1
11031	OCDD	3268-87-9	3.21	JB	10.4	0.0359	1
11031	2378-TCDF	51207-31-9	1.04	U	1.04	0.0743	1
11031	12378-PeCDF	57117-41-6	0.0519	JBQ	5.21	0.0407	1
11031	23478-PeCDF	57117-31-4	5.21	U	5.21	0.0376	1
11031	123478-HxCDF	70648-26-9	0.0533	JBQ	5.21	0.0389	1
11031	123678-HxCDF	57117-44-9	5.21	U	5.21	0.0351	1
11031	123789-HxCDF	72918-21-9	0.0794	JB	5.21	0.0433	1
11031	234678-HxCDF	60851-34-5	5.21	U	5.21	0.0359	1
11031	1234678-HpCDF	67562-39-4	0.0734	JBQ	5.21	0.0180	1
11031	1234789-HpCDF	55673-89-7	5.21	U	5.21	0.0281	1
11031	OCDF	39001-02-0	0.209	JB	10.4	0.0777	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0153				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	61	25 - 164
13C12-12378-PeCDD	66	25 - 181
13C12-123478-HxCDD	71	32 - 141
13C12-123678-HxCDD	71	28 - 130
13C12-123789-HxCDD	70	28 - 130
13C12-1234678-HpCDD	73	23 - 140
13C12-OCDD	67	17 - 157
13C12-2378-TCDF	56	24 - 169
13C12-12378-PeCDF	64	24 - 185
13C12-23478-PeCDF	59	21 - 178
13C12-123478-HxCDF	59	26 - 152
13C12-123678-HxCDF	66	26 - 123
13C12-234678-HxCDF	62	28 - 136
13C12-123789-HxCDF	58	29 - 147
13C12-1234678-HpCDF	81	28 - 143
13C12-1234789-HpCDF	56	26 - 138
13C12-OCDF	50	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-0.0-0.5 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471504
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 08:20 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87400 SDG#: PH188-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-0.0-0.5 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471504
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 08:20 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87400 SDG#: PH188-02

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14142SLF026	05/27/2014 06:13	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14142SLF026	05/23/2014 09:45	Katheryne V Sponheimer	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141430011A	05/26/2014 07:20	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141430011A	05/24/2014 04:15	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440030A	05/28/2014 02:13	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440031A	05/30/2014 21:13	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440031A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440030A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14148003	05/30/2014 15:03	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14148003	05/28/2014 10:10	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-0.0-0.5 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471504
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 08:20 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87400 SDG#: PH188-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	141470637002	05/28/2014 21:24	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141470637002B	05/28/2014 19:28	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637002A	05/28/2014 19:28	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637002A	05/28/2014 19:28	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637002A	05/28/2014 19:28	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141410638002	05/23/2014 09:13	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637002	05/28/2014 07:39	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141410638002	05/22/2014 12:50	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14141039401A	05/21/2014 22:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14142162401B	05/22/2014 20:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-4.0-5.0 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471505
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87440 SDG#: PH188-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.71	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.71	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.71	1
12969	Benzo(b)fluoranthene	205-99-2	1.2	J	1.8	0.71	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.71	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.71	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.4	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.4	1
12969	Chrysene	218-01-9	1.4	J	1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.71	1
12969	Diethylphthalate	84-66-2	19	U	19	6.4	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.4	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.4	1
12969	Fluoranthene	206-44-0	1.8		1.8	0.71	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.71	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.71	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.71	1
12969	2-Methylnaphthalene	91-57-6	1.0	J	1.8	0.71	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.71	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.71	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.4	1
12969	Phenanthrene	85-01-8	2.9		1.8	0.71	1
12969	Pyrene	129-00-0	0.91	J	1.8	0.71	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2	24.27
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.7	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.4	U	5.4	2.2	1
12952	EFH (C15-C20)	n.a.	5.4	U	5.4	2.2	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-4.0-5.0 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471505
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87440 SDG#: PH188-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	16		5.4	2.2	1
12952	EFH (C30-C40)	n.a.	31		11	4.3	1
12952	EFH (C8-C11)	n.a.	5.4	U	5.4	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.3	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	16,200		43.0	7.75	1
06944	Antimony	7440-36-0	4.30	U	4.30	0.796	1
06935	Arsenic	7440-38-2	4.42		4.30	0.753	1
06946	Barium	7440-39-3	247		1.08	0.0355	1
06947	Beryllium	7440-41-7	0.604	J	1.08	0.0720	1
07914	Boron	7440-42-8	7.29	J	10.8	0.903	1
06949	Cadmium	7440-43-9	0.590	J	1.08	0.0817	1
01650	Calcium	7440-70-2	3,140		21.5	3.59	1
06951	Chromium	7440-47-3	22.0		3.23	0.172	1
06952	Cobalt	7440-48-4	5.61		1.08	0.106	1
06953	Copper	7440-50-8	11.0		2.15	0.312	1
01654	Iron	7439-89-6	20,000		43.0	3.89	1
06955	Lead	7439-92-1	7.41		3.23	0.538	1
01656	Lithium	7439-93-2	23.3		4.3	0.37	1
01657	Magnesium	7439-95-4	4,540		10.8	1.80	1
06958	Manganese	7439-96-5	313		1.08	0.0892	1
06960	Molybdenum	7439-98-7	0.474	J	2.15	0.183	1
06961	Nickel	7440-02-0	11.9		2.15	0.140	1
10145	Phosphorus	7723-14-0	400		10.8	3.11	1
01662	Potassium	7440-09-7	3,470		108	8.97	1
01667	Sodium	7440-23-5	119		108	18.0	1
06969	Tin	7440-31-5	2.57	J	10.8	0.237	1
06970	Titanium	7440-32-6	1,160		1.08	0.183	1
06971	Vanadium	7440-62-2	37.5		1.08	0.140	1
06972	Zinc	7440-66-6	60.5		4.30	0.215	1
10146	Zirconium	7440-67-7	4.29	J	5.38	0.903	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.148	J	0.430	0.108	2
06142	Silver	7440-22-4	0.0297	J	0.215	0.0280	2
06144	Strontium	7440-24-6	24.5		0.430	0.0731	2
06145	Thallium	7440-28-0	0.275		0.215	0.0323	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0118	J	0.0174	0.0104	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-4.0-5.0 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471505
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87440 SDG#: PH188-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D	n.a.	7.00	0.0100	0.0100	1
	The pH was measured in water at 22 C.					
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	7.0	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-4.0-5.0 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471505
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87440 SDG#: PH188-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.05	U	1.05	0.0519	1
11031	12378-PeCDD	40321-76-4	0.192	JBQ	5.27	0.0391	1
11031	123478-HxCDD	39227-28-6	0.0535	JQ	5.27	0.0356	1
11031	123678-HxCDD	57653-85-7	0.394	JBQ	5.27	0.0367	1
11031	123789-HxCDD	19408-74-3	0.447	JB	5.27	0.0346	1
11031	1234678-HpCDD	35822-46-9	1.76	JB	5.27	0.0651	1
11031	OCDD	3268-87-9	14.0	BQ	10.5	0.0392	1
11031	2378-TCDF	51207-31-9	1.05	U	1.05	0.0521	1
11031	12378-PeCDF	57117-41-6	0.266	JB	5.27	0.0295	1
11031	23478-PeCDF	57117-31-4	0.252	JB	5.27	0.0305	1
11031	123478-HxCDF	70648-26-9	0.134	JBQ	5.27	0.0340	1
11031	123678-HxCDF	57117-44-9	0.129	JBQ	5.27	0.0310	1
11031	123789-HxCDF	72918-21-9	0.422	JBQ	5.27	0.0331	1
11031	234678-HxCDF	60851-34-5	0.112	JB	5.27	0.0332	1
11031	1234678-HpCDF	67562-39-4	0.386	JBQ	5.27	0.0173	1
11031	1234789-HpCDF	55673-89-7	0.0420	JB	5.27	0.0292	1
11031	OCDF	39001-02-0	0.953	JB	10.5	0.0526	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.158				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	58	25 - 164
13C12-12378-PeCDD	60	25 - 181
13C12-123478-HxCDD	64	32 - 141
13C12-123678-HxCDD	62	28 - 130
13C12-123789-HxCDD	63	28 - 130
13C12-1234678-HpCDD	60	23 - 140
13C12-OCDD	51	17 - 157
13C12-2378-TCDF	54	24 - 169
13C12-12378-PeCDF	62	24 - 185
13C12-23478-PeCDF	53	21 - 178
13C12-123478-HxCDF	54	26 - 152
13C12-123678-HxCDF	59	26 - 123
13C12-234678-HxCDF	56	28 - 136
13C12-123789-HxCDF	62	29 - 147
13C12-1234678-HpCDF	69	28 - 143
13C12-1234789-HpCDF	46	26 - 138
13C12-OCDF	38	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-4.0-5.0 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471505
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87440 SDG#: PH188-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-4.0-5.0 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471505
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87440 SDG#: PH188-03BKG

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14142SLF026	05/27/2014 04:38	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14142SLF026	05/23/2014 09:45	Katheryne V Sponheimer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147B16A	05/29/2014 02:51	Marie D Beamenderfer	24.27
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414134570	05/21/2014 16:00	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414134570	05/21/2014 16:00	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141430011A	05/26/2014 07:39	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141430011A	05/24/2014 04:15	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440030A	05/28/2014 05:28	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440031A	05/30/2014 21:34	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440031A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440030A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14148003	05/30/2014 04:24	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14148003	05/28/2014 10:10	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-4.0-5.0 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471505
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87440 SDG#: PH188-03BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141470637002	05/28/2014 20:41	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141470637002B	05/28/2014 19:02	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637002A	05/28/2014 19:02	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637002A	05/28/2014 19:02	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637002A	05/28/2014 19:02	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141410638002	05/23/2014 09:15	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637002	05/28/2014 07:39	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141410638002	05/22/2014 12:50	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14141039401A	05/21/2014 22:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14142162401B	05/22/2014 20:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-4.0-5.0MS Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471506
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87440 SDG#: PH188-03MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	36		1.8	0.71	1
12969	Acenaphthylene	208-96-8	35		1.8	0.36	1
12969	Anthracene	120-12-7	35		1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	38		1.8	0.71	1
12969	Benzo(a)pyrene	50-32-8	34		1.8	0.71	1
12969	Benzo(b)fluoranthene	205-99-2	39		1.8	0.71	1
12969	Benzo(e)pyrene	192-97-2	31		18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	32		1.8	0.71	1
12969	Benzo(k)fluoranthene	207-08-9	33		1.8	0.71	1
12969	Butylbenzylphthalate	85-68-7	39		19	6.4	1
12969	Di-n-butylphthalate	84-74-2	41		19	6.4	1
12969	Chrysene	218-01-9	34		1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	33		1.8	0.71	1
12969	Diethylphthalate	84-66-2	28		19	6.4	1
12969	Dimethylphthalate	131-11-3	31		19	6.4	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	44		19	6.4	1
12969	Fluoranthene	206-44-0	35		1.8	0.71	1
12969	Fluorene	86-73-7	35		1.8	0.71	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	35		1.8	0.71	1
12969	1-Methylnaphthalene	90-12-0	33		1.8	0.71	1
12969	2-Methylnaphthalene	91-57-6	35		1.8	0.71	1
12969	Naphthalene	91-20-3	33		1.8	0.71	1
12969	N-Nitrosodimethylamine	62-75-9	32		1.8	0.71	1
12969	Di-n-octylphthalate	117-84-0	43		19	6.4	1
12969	Phenanthrene	85-01-8	36		1.8	0.71	1
12969	Pyrene	129-00-0	31		1.8	0.71	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	8.4		1	0.2	23.23
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	170		18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.7	1
13099	PCB-1260	11096-82-5	180		18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	4.7	J	5.4	2.2	1
12952	EFH (C15-C20)	n.a.	9.0		5.4	2.2	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-4.0-5.0MS Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471506
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87440 SDG#: PH188-03MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	28		5.4	2.2	1
12952	EFH (C30-C40)	n.a.	52		11	4.3	1
12952	EFH (C8-C11)	n.a.	4.1	J	5.4	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	4.4	J	5.4	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	6.8		5.4	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	13		5.4	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	15		11	4.3	1
13197	EFH C8-C11 w/ SiGel	n.a.	3.5	J	5.4	2.2	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	17,000		41.8	7.53	1
06944	Antimony	7440-36-0	27.0		4.18	0.773	1
06935	Arsenic	7440-38-2	19.5		4.18	0.731	1
06946	Barium	7440-39-3	320		1.04	0.0345	1
06947	Beryllium	7440-41-7	5.86		1.04	0.0699	1
07914	Boron	7440-42-8	213		10.4	0.877	1
06949	Cadmium	7440-43-9	5.65		1.04	0.0793	1
01650	Calcium	7440-70-2	3,760		20.9	3.49	1
06951	Chromium	7440-47-3	38.9		3.13	0.167	1
06952	Cobalt	7440-48-4	55.6		1.04	0.103	1
06953	Copper	7440-50-8	37.6		2.09	0.303	1
01654	Iron	7439-89-6	17,700		41.8	3.78	1
06955	Lead	7439-92-1	22.8		3.13	0.522	1
01656	Lithium	7439-93-2	127		4.2	0.35	1
01657	Magnesium	7439-95-4	4,130		10.4	1.74	1
06958	Manganese	7439-96-5	395		1.04	0.0866	1
06960	Molybdenum	7439-98-7	200		2.09	0.177	1
06961	Nickel	7440-02-0	61.9		2.09	0.136	1
10145	Phosphorus	7723-14-0	511		10.4	3.02	1
01662	Potassium	7440-09-7	4,600		104	8.71	1
01667	Sodium	7440-23-5	1,110		104	17.4	1
06969	Tin	7440-31-5	379		10.4	0.230	1
06970	Titanium	7440-32-6	1,310		1.04	0.177	1
06971	Vanadium	7440-62-2	87.9		1.04	0.136	1
06972	Zinc	7440-66-6	109		4.18	0.209	1
10146	Zirconium	7440-67-7	106		5.22	0.877	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.21		0.418	0.104	2
06142	Silver	7440-22-4	11.0		0.209	0.0271	2
06144	Strontium	7440-24-6	33.4		0.418	0.0710	2
06145	Thallium	7440-28-0	0.775		0.209	0.0313	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.201		0.0177	0.0106	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-4.0-5.0MS Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471506
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87440 SDG#: PH188-03MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	14a Moisture Content by 160.3	n.a.	7.0	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-4.0-5.0MS Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471506
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87440 SDG#: PH188-03MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	19.6		1.06	0.0693	1
11031	12378-PeCDD	40321-76-4	99.3	B	5.28	0.0622	1
11031	123478-HxCDD	39227-28-6	103		5.28	0.0713	1
11031	123678-HxCDD	57653-85-7	99.2	B	5.28	0.0766	1
11031	123789-HxCDD	19408-74-3	101	B	5.28	0.0699	1
11031	1234678-HpCDD	35822-46-9	101	B	5.28	0.0686	1
11031	OCDD	3268-87-9	230	B	10.6	0.0548	1
11031	2378-TCDF	51207-31-9	21.1		1.06	0.0960	1
11031	12378-PeCDF	57117-41-6	102	B	5.28	0.0605	1
11031	23478-PeCDF	57117-31-4	103	B	5.28	0.0589	1
11031	123478-HxCDF	70648-26-9	102	B	5.28	0.107	1
11031	123678-HxCDF	57117-44-9	100	B	5.28	0.101	1
11031	123789-HxCDF	72918-21-9	100	B	5.28	0.111	1
11031	234678-HxCDF	60851-34-5	103	B	5.28	0.111	1
11031	1234678-HpCDF	67562-39-4	98.7	B	5.28	0.0662	1
11031	1234789-HpCDF	55673-89-7	99.2	B	5.28	0.105	1
11031	OCDF	39001-02-0	198	B	10.6	0.0522	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	82	25 - 164
13C12-12378-PeCDD	83	25 - 181
13C12-123478-HxCDD	88	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	84	23 - 140
13C12-OCDD	72	17 - 157
13C12-2378-TCDF	77	24 - 169
13C12-12378-PeCDF	82	24 - 185
13C12-23478-PeCDF	75	21 - 178
13C12-123478-HxCDF	76	26 - 152
13C12-123678-HxCDF	82	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	83	29 - 147
13C12-1234678-HpCDF	91	28 - 143
13C12-1234789-HpCDF	65	26 - 138
13C12-OCDF	56	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-4.0-5.0MS Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471506
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87440 SDG#: PH188-03MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
S	*Saturation of detection signal*					

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-4.0-5.0MS Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471506
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87440 SDG#: PH188-03MS

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14142SLF026	05/27/2014 05:10	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14142SLF026	05/23/2014 09:45	Katheryne V Sponheimer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147B16A	05/29/2014 03:28	Marie D Beamenderfer	23.23
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414134570	05/21/2014 15:54	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414134570	05/21/2014 15:54	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141430011A	05/26/2014 07:57	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141430011A	05/24/2014 04:15	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440030A	05/28/2014 05:49	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440031A	05/30/2014 21:56	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440031A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440030A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14148003	05/30/2014 05:20	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14148003	05/28/2014 10:10	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-4.0-5.0MS Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471506
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87440 SDG#: PH188-03MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141470637002	05/28/2014 20:52	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141470637002B	05/28/2014 19:09	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637002A	05/28/2014 19:09	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637002A	05/28/2014 19:09	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637002A	05/28/2014 19:09	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141410638002	05/23/2014 09:25	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637002	05/28/2014 07:39	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141410638002	05/22/2014 12:50	Denise K Conners	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14142162401B	05/22/2014 20:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-4.0-5.0MSD Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471507
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87440 SDG#: PH188-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	35		1.8	0.72	1
12969	Acenaphthylene	208-96-8	36		1.8	0.36	1
12969	Anthracene	120-12-7	37		1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	40		1.8	0.72	1
12969	Benzo(a)pyrene	50-32-8	34		1.8	0.72	1
12969	Benzo(b)fluoranthene	205-99-2	38		1.8	0.72	1
12969	Benzo(e)pyrene	192-97-2	31		18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	33		1.8	0.72	1
12969	Benzo(k)fluoranthene	207-08-9	34		1.8	0.72	1
12969	Butylbenzylphthalate	85-68-7	40		19	6.5	1
12969	Di-n-butylphthalate	84-74-2	39		19	6.5	1
12969	Chrysene	218-01-9	36		1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	34		1.8	0.72	1
12969	Diethylphthalate	84-66-2	30		19	6.5	1
12969	Dimethylphthalate	131-11-3	32		19	6.5	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	43		19	6.5	1
12969	Fluoranthene	206-44-0	40		1.8	0.72	1
12969	Fluorene	86-73-7	36		1.8	0.72	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	34		1.8	0.72	1
12969	1-Methylnaphthalene	90-12-0	33		1.8	0.72	1
12969	2-Methylnaphthalene	91-57-6	36		1.8	0.72	1
12969	Naphthalene	91-20-3	35		1.8	0.72	1
12969	N-Nitrosodimethylamine	62-75-9	31		1.8	0.72	1
12969	Di-n-octylphthalate	117-84-0	43		19	6.5	1
12969	Phenanthrene	85-01-8	39		1.8	0.72	1
12969	Pyrene	129-00-0	35		1.8	0.72	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	8.3		1	0.2	22.24
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	150		18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.7	1
13099	PCB-1260	11096-82-5	160		18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	4.7	J	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	8.5		5.3	2.1	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-4.0-5.0MSD Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471507
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87440 SDG#: PH188-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	22		5.3	2.1	1
12952	EFH (C30-C40)	n.a.	35		11	4.3	1
12952	EFH (C8-C11)	n.a.	4.1	J	5.3	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	3.9	J	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	6.0		5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	11		5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	12		11	4.3	1
13197	EFH C8-C11 w/ SiGel	n.a.	3.1	J	5.3	2.1	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	18,000		43.0	7.75	1
06944	Antimony	7440-36-0	27.7		4.30	0.796	1
06935	Arsenic	7440-38-2	19.9		4.30	0.753	1
06946	Barium	7440-39-3	326		1.08	0.0355	1
06947	Beryllium	7440-41-7	6.06		1.08	0.0720	1
07914	Boron	7440-42-8	219		10.8	0.903	1
06949	Cadmium	7440-43-9	5.82		1.08	0.0817	1
01650	Calcium	7440-70-2	3,580		21.5	3.59	1
06951	Chromium	7440-47-3	41.1		3.23	0.172	1
06952	Cobalt	7440-48-4	57.6		1.08	0.106	1
06953	Copper	7440-50-8	39.3		2.15	0.312	1
01654	Iron	7439-89-6	18,600		43.0	3.89	1
06955	Lead	7439-92-1	22.5		3.23	0.538	1
01656	Lithium	7439-93-2	132		4.3	0.37	1
01657	Magnesium	7439-95-4	4,380		10.8	1.80	1
06958	Manganese	7439-96-5	377		1.08	0.0892	1
06960	Molybdenum	7439-98-7	206		2.15	0.183	1
06961	Nickel	7440-02-0	64.2		2.15	0.140	1
10145	Phosphorus	7723-14-0	441		10.8	3.11	1
01662	Potassium	7440-09-7	4,640		108	8.97	1
01667	Sodium	7440-23-5	1,150		108	18.0	1
06969	Tin	7440-31-5	390		10.8	0.237	1
06970	Titanium	7440-32-6	1,430		1.08	0.183	1
06971	Vanadium	7440-62-2	92.3		1.08	0.140	1
06972	Zinc	7440-66-6	108		4.30	0.215	1
10146	Zirconium	7440-67-7	110		5.38	0.903	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.27		0.430	0.108	2
06142	Silver	7440-22-4	11.0		0.215	0.0280	2
06144	Strontium	7440-24-6	32.5		0.430	0.0731	2
06145	Thallium	7440-28-0	0.757		0.215	0.0323	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.181		0.0177	0.0106	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-4.0-5.0MSD Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471507
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87440 SDG#: PH188-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	14a Moisture Content by 160.3	n.a.	7.0	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-4.0-5.0MSD Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471507
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87440 SDG#: PH188-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	19.6		1.05	0.0677	1
11031	12378-PeCDD	40321-76-4	100	B	5.27	0.0613	1
11031	123478-HxCDD	39227-28-6	103		5.27	0.0899	1
11031	123678-HxCDD	57653-85-7	98.4	B	5.27	0.0872	1
11031	123789-HxCDD	19408-74-3	99.5	B	5.27	0.0875	1
11031	1234678-HpCDD	35822-46-9	99.3	B	5.27	0.0873	1
11031	OCDD	3268-87-9	208	B	10.5	0.0553	1
11031	2378-TCDF	51207-31-9	20.8		1.05	0.0660	1
11031	12378-PeCDF	57117-41-6	105	B	5.27	0.0604	1
11031	23478-PeCDF	57117-31-4	104	B	5.27	0.0559	1
11031	123478-HxCDF	70648-26-9	102	B	5.27	0.0979	1
11031	123678-HxCDF	57117-44-9	99.3	B	5.27	0.0872	1
11031	123789-HxCDF	72918-21-9	102	B	5.27	0.100	1
11031	234678-HxCDF	60851-34-5	102	B	5.27	0.0936	1
11031	1234678-HpCDF	67562-39-4	98.8	B	5.27	0.0697	1
11031	1234789-HpCDF	55673-89-7	98.5	B	5.27	0.105	1
11031	OCDF	39001-02-0	196	B	10.5	0.0630	1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	72	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	74	23 - 140
13C12-OCDD	63	17 - 157
13C12-2378-TCDF	66	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	66	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	81	28 - 143
13C12-1234789-HpCDF	59	26 - 138
13C12-OCDF	49	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-4.0-5.0MSD Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471507
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87440 SDG#: PH188-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
S	*Saturation of detection signal*					

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-4.0-5.0MSD Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471507
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87440 SDG#: PH188-03MSD

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14142SLF026	05/27/2014 05:41	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14142SLF026	05/23/2014 09:45	Katheryne V Sponheimer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147B16A	05/29/2014 04:06	Marie D Beamenderfer	22.24
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414134570	05/21/2014 15:55	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414134570	05/21/2014 15:55	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141430011A	05/26/2014 08:16	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141430011A	05/24/2014 04:15	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440030A	05/28/2014 06:11	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440031A	05/30/2014 22:18	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440031A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440030A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14148003	05/30/2014 06:17	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14148003	05/28/2014 10:10	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-4.0-5.0MSD Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471507
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87440 SDG#: PH188-03MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141470637002	05/28/2014 20:57	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141470637002B	05/28/2014 19:12	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637002A	05/28/2014 19:12	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637002A	05/28/2014 19:12	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637002A	05/28/2014 19:12	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141410638002	05/23/2014 09:27	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637002	05/28/2014 07:39	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141410638002	05/22/2014 12:50	Denise K Conners	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14142162401B	05/22/2014 20:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-4.0-5.0DUP Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471508
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87440 SDG#: PH188-03DUP

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,200		43.0	7.75	1
06944	Antimony	7440-36-0	4.30	U	4.30	0.796	1
06935	Arsenic	7440-38-2	3.33	J	4.30	0.753	1
06946	Barium	7440-39-3	101		1.08	0.0355	1
06947	Beryllium	7440-41-7	0.523	J	1.08	0.0720	1
07914	Boron	7440-42-8	5.30	J	10.8	0.903	1
06949	Cadmium	7440-43-9	0.528	J	1.08	0.0817	1
01650	Calcium	7440-70-2	2,710		21.5	3.59	1
06951	Chromium	7440-47-3	17.6		3.23	0.172	1
06952	Cobalt	7440-48-4	5.42		1.08	0.106	1
06953	Copper	7440-50-8	9.61		2.15	0.312	1
01654	Iron	7439-89-6	18,700		43.0	3.89	1
06955	Lead	7439-92-1	5.89		3.23	0.538	1
01656	Lithium	7439-93-2	21.8		4.3	0.37	1
01657	Magnesium	7439-95-4	4,130		10.8	1.80	1
06958	Manganese	7439-96-5	316		1.08	0.0892	1
06960	Molybdenum	7439-98-7	0.354	J	2.15	0.183	1
06961	Nickel	7440-02-0	11.6		2.15	0.140	1
10145	Phosphorus	7723-14-0	381		10.8	3.11	1
01662	Potassium	7440-09-7	3,310		108	8.97	1
01667	Sodium	7440-23-5	110		108	18.0	1
06969	Tin	7440-31-5	2.40	J	10.8	0.237	1
06970	Titanium	7440-32-6	1,070		1.08	0.183	1
06971	Vanadium	7440-62-2	32.9		1.08	0.140	1
06972	Zinc	7440-66-6	55.9		4.30	0.215	1
10146	Zirconium	7440-67-7	4.39	J	5.38	0.903	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.127	J	0.430	0.108	2
06142	Silver	7440-22-4	0.0320	J	0.215	0.0280	2
06144	Strontium	7440-24-6	21.2		0.430	0.0731	2
06145	Thallium	7440-28-0	0.271		0.215	0.0323	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0104	J	0.0170	0.0102	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.96		0.0100	0.0100	1
	The pH was measured in water at 22.1 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	7.0		0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	7.9		0.10	0.10	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-4.0-5.0DUP Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471508
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87440 SDG#: PH188-03DUP

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141470637002	05/28/2014 20:48	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141470637002B	05/28/2014 19:07	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637002A	05/28/2014 19:07	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637002A	05/28/2014 19:07	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637002A	05/28/2014 19:07	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141410638002	05/23/2014 09:23	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637002	05/28/2014 07:39	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141410638002	05/22/2014 12:50	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14141039401A	05/21/2014 22:20	Luz M Groff	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14142162401B	05/22/2014 20:29	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	14142162401B	05/22/2014 20:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-1174-SA5A-SB-4.0-5.0 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471509
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:25 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11744 SDG#: PH188-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.72	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.72	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.72	1
12969	Benzo(b)fluoranthene	205-99-2	0.93	J	1.8	0.72	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.72	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.72	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.5	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.5	1
12969	Chrysene	218-01-9	1.2	J	1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.72	1
12969	Diethylphthalate	84-66-2	19	U	19	6.5	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.5	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.5	1
12969	Fluoranthene	206-44-0	1.7	J	1.8	0.72	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.72	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.72	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.72	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.72	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.72	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.72	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.5	1
12969	Phenanthrene	85-01-8	1.7	J	1.8	0.72	1
12969	Pyrene	129-00-0	0.89	J	1.8	0.72	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1	U	1	0.2	22.32
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.4	1
13099	PCB-1242	53469-21-9	18	U	18	4.4	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.7	1
13099	PCB-1260	11096-82-5	18	U	18	4.2	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.4	U	5.4	2.1	1
12952	EFH (C15-C20)	n.a.	5.4	U	5.4	2.1	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-1174-SA5A-SB-4.0-5.0 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471509
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:25 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11744 SDG#: PH188-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	11		5.4	2.1	1
12952	EFH (C30-C40)	n.a.	21		11	4.3	1
12952	EFH (C8-C11)	n.a.	5.4	U	5.4	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.4	U	5.4	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.4	U	5.4	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.4	U	5.4	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.3	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.4	U	5.4	2.1	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,900		41.8	7.53	1
06944	Antimony	7440-36-0	4.18	U	4.18	0.773	1
06935	Arsenic	7440-38-2	3.84	J	4.18	0.731	1
06946	Barium	7440-39-3	106		1.04	0.0345	1
06947	Beryllium	7440-41-7	0.529	J	1.04	0.0699	1
07914	Boron	7440-42-8	4.55	J	10.4	0.877	1
06949	Cadmium	7440-43-9	0.565	J	1.04	0.0793	1
01650	Calcium	7440-70-2	3,440		20.9	3.49	1
06951	Chromium	7440-47-3	18.4		3.13	0.167	1
06952	Cobalt	7440-48-4	5.58		1.04	0.103	1
06953	Copper	7440-50-8	10.0		2.09	0.303	1
01654	Iron	7439-89-6	20,100		41.8	3.78	1
06955	Lead	7439-92-1	5.67		3.13	0.522	1
01656	Lithium	7439-93-2	23.1		4.2	0.35	1
01657	Magnesium	7439-95-4	4,420		10.4	1.74	1
06958	Manganese	7439-96-5	367		1.04	0.0867	1
06960	Molybdenum	7439-98-7	0.277	J	2.09	0.177	1
06961	Nickel	7440-02-0	11.0		2.09	0.136	1
10145	Phosphorus	7723-14-0	412		10.4	3.02	1
01662	Potassium	7440-09-7	3,450		104	8.71	1
01667	Sodium	7440-23-5	104	J	104	17.4	1
06969	Tin	7440-31-5	2.49	J	10.4	0.230	1
06970	Titanium	7440-32-6	1,100		1.04	0.177	1
06971	Vanadium	7440-62-2	34.8		1.04	0.136	1
06972	Zinc	7440-66-6	57.4		4.18	0.209	1
10146	Zirconium	7440-67-7	3.87	J	5.22	0.877	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.161	J	0.418	0.104	2
06142	Silver	7440-22-4	0.209	U	0.209	0.0271	2
06144	Strontium	7440-24-6	21.4		0.418	0.0710	2
06145	Thallium	7440-28-0	0.289		0.209	0.0313	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0124	J	0.0171	0.0102	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-1174-SA5A-SB-4.0-5.0 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471509
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:25 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11744 SDG#: PH188-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 22 C.	n.a.	7.24	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	7.9	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-1174-SA5A-SB-4.0-5.0 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471509
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:25 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11744 SDG#: PH188-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.08	U	1.08	0.0787	1
11031	12378-PeCDD	40321-76-4	0.172	JBQ	5.38	0.0644	1
11031	123478-HxCDD	39227-28-6	5.38	U	5.38	0.0451	1
11031	123678-HxCDD	57653-85-7	0.297	JBQ	5.38	0.0445	1
11031	123789-HxCDD	19408-74-3	0.392	JB	5.38	0.0425	1
11031	1234678-HpCDD	35822-46-9	0.842	JB	5.38	0.0545	1
11031	OCDD	3268-87-9	6.72	JB	10.8	0.0407	1
11031	2378-TCDF	51207-31-9	0.122	JQ	1.08	0.0719	1
11031	12378-PeCDF	57117-41-6	0.239	JBQ	5.38	0.0344	1
11031	23478-PeCDF	57117-31-4	0.187	JBQ	5.38	0.0333	1
11031	123478-HxCDF	70648-26-9	0.0937	JBQ	5.38	0.0399	1
11031	123678-HxCDF	57117-44-9	0.106	JBQ	5.38	0.0367	1
11031	123789-HxCDF	72918-21-9	0.370	JB	5.38	0.0440	1
11031	234678-HxCDF	60851-34-5	0.107	JBQ	5.38	0.0391	1
11031	1234678-HpCDF	67562-39-4	0.192	JB	5.38	0.0159	1
11031	1234789-HpCDF	55673-89-7	0.0562	JBQ	5.38	0.0268	1
11031	OCDF	39001-02-0	0.500	JB	10.8	0.0752	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0887				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	65	25 - 164
13C12-12378-PeCDD	69	25 - 181
13C12-123478-HxCDD	72	32 - 141
13C12-123678-HxCDD	72	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	69	23 - 140
13C12-OCDD	58	17 - 157
13C12-2378-TCDF	60	24 - 169
13C12-12378-PeCDF	68	24 - 185
13C12-23478-PeCDF	62	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	68	26 - 123
13C12-234678-HxCDF	64	28 - 136
13C12-123789-HxCDF	65	29 - 147
13C12-1234678-HpCDF	78	28 - 143
13C12-1234789-HpCDF	52	26 - 138
13C12-OCDF	43	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-1174-SA5A-SB-4.0-5.0 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471509
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:25 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11744 SDG#: PH188-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-1174-SA5A-SB-4.0-5.0 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471509
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:25 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11744 SDG#: PH188-04

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14142SLF026	05/27/2014 06:45	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14142SLF026	05/23/2014 09:45	Katheryne V Sponheimer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147B16A	05/28/2014 23:04	Marie D Beamenderfer	22.32
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414134570	05/21/2014 16:04	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414134570	05/21/2014 15:51	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141430011A	05/26/2014 08:34	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141430011A	05/24/2014 04:15	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440030A	05/28/2014 06:54	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440031A	05/30/2014 22:39	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440031A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440030A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14148003	05/30/2014 15:59	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14148003	05/28/2014 10:10	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-1174-SA5A-SB-4.0-5.0 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471509
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:25 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11744 SDG#: PH188-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141470637002	05/28/2014 21:28	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141470637002B	05/28/2014 19:31	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637002A	05/28/2014 19:31	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637002A	05/28/2014 19:31	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637002A	05/28/2014 19:31	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141410638002	05/23/2014 09:29	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637002	05/28/2014 07:39	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141410638002	05/22/2014 12:50	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14141039401A	05/21/2014 22:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14142162401B	05/22/2014 20:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-12.0-13.0 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471510
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 10:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87412 SDG#: PH188-05*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.71	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.71	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.71	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.71	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.71	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.71	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.4	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.4	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.71	1
12969	Diethylphthalate	84-66-2	19	U	19	6.4	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.4	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.4	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.71	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.71	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.71	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.71	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.71	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.71	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.71	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.4	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.71	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.71	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1	U	1	0.2	22.98
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.7	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.4	U	5.4	2.1	1
12952	EFH (C15-C20)	n.a.	5.4	U	5.4	2.1	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-12.0-13.0 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471510
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 10:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87412 SDG#: PH188-05*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.4	U	5.4	2.1	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.3	1
12952	EFH (C8-C11)	n.a.	5.4	U	5.4	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.4	U	5.4	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.4	U	5.4	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.4	U	5.4	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.3	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.4	U	5.4	2.1	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,000		41.0	7.38	1
06944	Antimony	7440-36-0	4.10	U	4.10	0.758	1
06935	Arsenic	7440-38-2	7.35		4.10	0.717	1
06946	Barium	7440-39-3	73.9		1.02	0.0338	1
06947	Beryllium	7440-41-7	0.540	J	1.02	0.0686	1
07914	Boron	7440-42-8	3.61	J	10.2	0.860	1
06949	Cadmium	7440-43-9	0.541	J	1.02	0.0778	1
01650	Calcium	7440-70-2	3,300		20.5	3.42	1
06951	Chromium	7440-47-3	21.8		3.07	0.164	1
06952	Cobalt	7440-48-4	3.96		1.02	0.101	1
06953	Copper	7440-50-8	9.98		2.05	0.297	1
01654	Iron	7439-89-6	25,200		41.0	3.71	1
06955	Lead	7439-92-1	5.34		3.07	0.512	1
01656	Lithium	7439-93-2	23.2		4.1	0.35	1
01657	Magnesium	7439-95-4	5,520		10.2	1.71	1
06958	Manganese	7439-96-5	188		1.02	0.0850	1
06960	Molybdenum	7439-98-7	0.206	J	2.05	0.174	1
06961	Nickel	7440-02-0	9.40		2.05	0.133	1
10145	Phosphorus	7723-14-0	412		10.2	2.96	1
01662	Potassium	7440-09-7	2,590		102	8.54	1
01667	Sodium	7440-23-5	123		102	17.1	1
06969	Tin	7440-31-5	2.68	J	10.2	0.225	1
06970	Titanium	7440-32-6	1,260		1.02	0.174	1
06971	Vanadium	7440-62-2	42.8		1.02	0.133	1
06972	Zinc	7440-66-6	57.1		4.10	0.205	1
10146	Zirconium	7440-67-7	2.86	J	5.12	0.860	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.150	J	0.410	0.102	2
06142	Silver	7440-22-4	0.205	U	0.205	0.0266	2
06144	Strontium	7440-24-6	19.3		0.410	0.0696	2
06145	Thallium	7440-28-0	0.294		0.205	0.0307	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0114	J	0.0176	0.0106	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-12.0-13.0 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471510
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 10:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87412 SDG#: PH188-05*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D	n.a.	6.90	0.0100	0.0100	1
	The pH was measured in water at 21.9 C.					
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	7.0	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-12.0-13.0 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471510
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 10:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87412 SDG#: PH188-05*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.03 U	1.03	0.0782	1
11031	12378-PeCDD	40321-76-4	0.0874 JBQ	5.13	0.0584	1
11031	123478-HxCDD	39227-28-6	5.13 U	5.13	0.0324	1
11031	123678-HxCDD	57653-85-7	5.13 U	5.13	0.0331	1
11031	123789-HxCDD	19408-74-3	5.13 U	5.13	0.0320	1
11031	1234678-HpCDD	35822-46-9	0.118 JBQ	5.13	0.0422	1
11031	OCDD	3268-87-9	0.739 JB	10.3	0.0364	1
11031	2378-TCDF	51207-31-9	1.03 U	1.03	0.0526	1
11031	12378-PeCDF	57117-41-6	0.0598 JB	5.13	0.0321	1
11031	23478-PeCDF	57117-31-4	0.0511 JBQ	5.13	0.0313	1
11031	123478-HxCDF	70648-26-9	0.0742 JBQ	5.13	0.0309	1
11031	123678-HxCDF	57117-44-9	0.0470 JBQ	5.13	0.0286	1
11031	123789-HxCDF	72918-21-9	5.13 U	5.13	0.0338	1
11031	234678-HxCDF	60851-34-5	0.0341 JBQ	5.13	0.0315	1
11031	1234678-HpCDF	67562-39-4	0.0606 JBQ	5.13	0.0130	1
11031	1234789-HpCDF	55673-89-7	0.0309 JB	5.13	0.0202	1
11031	OCDF	39001-02-0	0.151 JBQ	10.3	0.0755	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.00232			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	69	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	72	23 - 140
13C12-OCDD	62	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	69	24 - 185
13C12-23478-PeCDF	65	21 - 178
13C12-123478-HxCDF	68	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	81	28 - 143
13C12-1234789-HpCDF	58	26 - 138
13C12-OCDF	48	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-12.0-13.0 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471510
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 10:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87412 SDG#: PH188-05*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-12.0-13.0 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471510
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 10:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87412 SDG#: PH188-05*

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14142SLF026	05/27/2014 07:17	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14142SLF026	05/23/2014 09:45	Katheryne V Sponheimer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147B16A	05/28/2014 23:42	Marie D Beamenderfer	22.98
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414134570	05/21/2014 15:37	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414134570	05/21/2014 15:37	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141430011A	05/26/2014 08:53	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141430011A	05/24/2014 04:15	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440030A	05/28/2014 02:34	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440031A	05/30/2014 23:01	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440031A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440030A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14148003	05/30/2014 16:56	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14148003	05/28/2014 10:10	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-874-SA5A-SB-12.0-13.0 Grab Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7471510
LL Group # 1475897
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 10:15 by RR

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:35

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87412 SDG#: PH188-05*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141470637002	05/28/2014 21:32	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141470637002B	05/28/2014 19:33	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637002A	05/28/2014 19:33	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637002A	05/28/2014 19:33	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637002A	05/28/2014 19:33	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141410638002	05/23/2014 09:31	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637002	05/28/2014 07:39	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141410638002	05/22/2014 12:50	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14141039401A	05/21/2014 22:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14142162401B	05/22/2014 20:29	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475897
Reported: 06/03/14 at 04:35 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14142SLF026	Sample number(s): 7471504-7471507,7471509-7471510									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	106		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	103		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	106		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	110		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	93		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	109		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	84		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	98		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	88		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	106		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	107		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	95		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	102		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	88		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	93		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	114		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	104		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	106		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	99		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	94		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	101		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	96		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	96		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	112		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	100		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	95		80-119		
Batch number: 14142A94A	Sample number(s): 7471503									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	109	111	80-133	2	30
Batch number: 14147B16A	Sample number(s): 7471505-7471507,7471509-7471510									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	88		67-120		
Batch number: 141430011A	Sample number(s): 7471504-7471507,7471509-7471510									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	87	87	36-106	0	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	100		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475897
Reported: 06/03/14 at 04:35 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1260	17	U	17.	3.9	ug/kg	108		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141440030A	Sample number(s): 7471504-7471507,7471509-7471510									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	90		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	91		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	92		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	85		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	77		60-115		
Batch number: 141440031A	Sample number(s): 7471504-7471507,7471509-7471510									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	85		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	85		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	84		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	81		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	68		60-115		
Batch number: 141410638002	Sample number(s): 7471504-7471510									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	95		85-120		
Batch number: 141470637002	Sample number(s): 7471504-7471510									
Aluminum	9.28	J	40.0	7.21	mg/kg	110		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	107		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	105		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	103		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	103		80-120		
Boron	0.858	J	10.0	0.840	mg/kg	102		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	106		80-120		
Calcium	12.8	J	20.0	3.34	mg/kg	106		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	103		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	107		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	106		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	106		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	107		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	107		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	102		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	105		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	105		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	110		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	106		80-120		
Potassium	100 U		100.	8.34	mg/kg	103		80-120		
Sodium	100 U		100.	16.7	mg/kg	102		80-120		
Tin	1.36	J	10.0	0.220	mg/kg	104		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	104		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	106		80-120		
Zinc	0.956	J	4.00	0.200	mg/kg	105		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	105		80-120		
Batch number: 141470637002A	Sample number(s): 7471504-7471510									
Silver	0.200	U	0.200	0.0260	mg/kg	113		80-120		
Strontium	0.400	U	0.400	0.0680	mg/kg	115		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	108		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475897
Reported: 06/03/14 at 04:35 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 141470637002B	Sample number(s): 7471504-7471510									
Selenium	0.400	U	0.400	0.100	mg/kg	112		80-120		
Batch number: 14141039401A	Sample number(s): 7471504-7471505,7471508-7471510									
15a pH by 9045D						100		95-105		
Batch number: 14142162401B	Sample number(s): 7471504-7471510									
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14148003	Sample number(s): 7471504-7471507,7471509-7471510									
2378-TCDD	1.00	U	1.00	0.0400	ng/kg	91		67-158		
12378-PeCDD	0.0674	J	5.00	0.0286	ng/kg	97		70-142		
123478-HxCDD	5.00	U	5.00	0.0192	ng/kg	98		70-164		
123678-HxCDD	0.0322	J	5.00	0.0199	ng/kg	94		76-134		
123789-HxCDD	0.0351	J	5.00	0.0195	ng/kg	93		64-162		
1234678-HpCDD	0.104	J	5.00	0.0213	ng/kg	92		70-140		
OCDD	0.662	J	10.0	0.0258	ng/kg	92		78-144		
2378-TCDF	1.00	U	1.00	0.0272	ng/kg	104		75-158		
12378-PeCDF	0.0961	J	5.00	0.0195	ng/kg	97		80-134		
23478-PeCDF	0.0685	J	5.00	0.0194	ng/kg	97		68-160		
123478-HxCDF	0.0887	J	5.00	0.0170	ng/kg	95		72-134		
123678-HxCDF	0.0451	J	5.00	0.0160	ng/kg	95		84-130		
123789-HxCDF	0.0531	J	5.00	0.0170	ng/kg	94		78-130		
234678-HxCDF	0.0468	J	5.00	0.0165	ng/kg	97		70-156		
1234678-HpCDF	0.0707	J	5.00	0.0102	ng/kg	92		82-122		
1234789-HpCDF	0.0368	J	5.00	0.0171	ng/kg	92		78-138		
OCDF	0.0875	J	10.0	0.0344	ng/kg	94		63-170		
TEQ WHO 2005 - EDLx0.0	0.0870				ng/kg					

Sample Matrix Quality Control

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Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14142SLF026	Sample number(s): 7471504-7471507,7471509-7471510 UNSPK: 7471505								
Acenaphthene	101	99	48-127	1	30				
Acenaphthylene	99	102	60-128	3	30				
Anthracene	99	103	52-126	5	30				
Benzo(a)anthracene	107	112	44-143	5	30				
Benzo(a)pyrene	95	96	49-137	1	30				
Benzo(b)fluoranthene	106	102	26-142	4	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475897
Reported: 06/03/14 at 04:35 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Benzo(e)pyrene	85	86	63-111	1	30				
Benzo(g,h,i)perylene	89	92	33-141	4	30				
Benzo(k)fluoranthene	92	94	49-144	3	30				
Butylbenzylphthalate	110	112	64-156	1	30				
Di-n-butylphthalate	114	109	52-147	4	30				
Chrysene	92	96	43-141	4	30				
Dibenz(a,h)anthracene	93	96	25-145	4	30				
Diethylphthalate	80	83	66-140	5	30				
Dimethylphthalate	87	89	70-123	3	30				
Bis(2-Ethylhexyl)phthalate	123	121	48-164	1	30				
Fluoranthene	94	106	38-153	11	30				
Fluorene	98	100	57-130	3	30				
Indeno(1,2,3-cd)pyrene	98	95	26-139	3	30				
1-Methylnaphthalene	92	92	59-139	1	30				
2-Methylnaphthalene	95	97	46-147	3	30				
Naphthalene	93	97	52-136	5	30				
N-Nitrosodimethylamine	89	87	39-134	1	30				
Di-n-octylphthalate	121	119	52-162	1	30				
Phenanthrene	93	101	50-137	8	30				
Pyrene	83	96	26-143	14	30				
Batch number: 14147B16A	Sample number(s): 7471505-7471507,7471509-7471510 UNSPK: 7471505								
11a TPH by EPA 8015B GRO	76	79	69-123	1	30				
Batch number: 141430011A	Sample number(s): 7471504-7471507,7471509-7471510 UNSPK: 7471505								
PCB-1016	96	84	41-135	12	50				
PCB-1260	102	88	40-134	14	50				
Batch number: 141440030A	Sample number(s): 7471504-7471507,7471509-7471510 UNSPK: 7471505								
EFH (C12-C14)	86	88	49-123	1	20				
EFH (C15-C20)	112	106	49-123	6	20				
EFH (C21-C30)	91	42*	49-123	26*	20				
EFH (C30-C40)	130*	28*	49-123	38*	20				
EFH (C8-C11)	76	77	49-123	1	20				
Batch number: 141440031A	Sample number(s): 7471504-7471507,7471509-7471510 UNSPK: 7471505								
EFH C12-C14 w/ SiGel	82	73	49-123	12	20				
EFH C15-C20 w/ SiGel	84	75	49-123	13	20				
EFH C21-C30 w/ SiGel	96	79	49-123	20	20				
EFH C30-C40 w/ SiGel	90	78	49-123	16	20				
EFH C8-C11 w/ SiGel	64	58	49-123	11	20				
Batch number: 141410638002	Sample number(s): 7471504-7471510 UNSPK: 7471505 BKG: 7471505								
3a Mercury 7471A	107	96	65-135	11	20	0.0109 J	0.0097 J	12 (1)	20
Batch number: 141470637002	Sample number(s): 7471504-7471510 UNSPK: 7471505 BKG: 7471505								
Aluminum	372 (2)	821 (2)	75-125	6	20	15,100	13,200	13	20
Antimony	52*	51*	75-125	2	20	4.00 U	4.00 U	0 (1)	20
Arsenic	96	96	75-125	2	20	4.11	3.09 J	28* (1)	20
Barium	35*	37*	75-125	2	20	230	94.1	84*	20
Beryllium	101	102	75-125	3	20	0.562 J	0.486 J	15 (1)	20
Boron	98	98	75-125	3	20	6.78 J	4.93 J	32* (1)	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475897
Reported: 06/03/14 at 04:35 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Cadmium	97	97	75-125	3	20	0.549 J	0.491 J	11 (1)	20
Calcium	149 (2)	103 (2)	75-125	5	20	2,920	2,520	15	20
Chromium	81	89	75-125	5	20	20.4	16.4	22*	20
Cobalt	96	97	75-125	4	20	5.22	5.04	4	20
Copper	102	105	75-125	4	20	10.3	8.93	14 (1)	20
Iron	-2173 (2)	-1295 (2)	75-125	5	20	18,600	17,400	7	20
Lead	98	93	75-125	2	20	6.89	5.48	23* (1)	20
Lithium	99	101	75-125	4	20	21.7	20.3	7	20
Magnesium	-196 (2)	-75 (2)	75-125	6	20	4,220	3,840	9	20
Manganese	156 (2)	119 (2)	75-125	5	20	291	294	1	20
Molybdenum	95	96	75-125	3	20	0.441 J	0.329 J	29* (1)	20
Nickel	96	97	75-125	4	20	11.0	10.8	3	20
Phosphorus	106	38*	75-125	15	20	372	354	5	20
Potassium	108	109	75-125	1	20	3,220	3,070	5	20
Sodium	95	96	75-125	4	20	111	102	8 (1)	20
Tin	90	90	75-125	3	20	2.39 J	2.23 J	7 (1)	20
Titanium	150 (2)	258 (2)	75-125	9	20	1,070	994	8	20
Vanadium	97	102	75-125	5	20	34.9	30.6	13	20
Zinc	93	89	75-125	1	20	56.3	52.0	8	20
Zirconium	98	98	75-125	4	20	3.99 J	4.08 J	2 (1)	20
Batch number: 141470637002A	Sample number(s): 7471504-7471510 UNSPK: 7471505 BKG: 7471505								
Silver	105	102	75-125	0	20	0.0276 J	0.0297 J	8 (1)	20
Strontium	106	92	75-125	3	20	22.8	19.7	15	20
Thallium	120	112	75-125	2	20	0.256	0.252	1 (1)	20
Batch number: 141470637002B	Sample number(s): 7471504-7471510 UNSPK: 7471505 BKG: 7471505								
Selenium	99	99	75-125	3	20	0.137 J	0.118 J	15 (1)	20
Batch number: 14141039401A	Sample number(s): 7471504-7471505,7471508-7471510 BKG: 7471505								
15a pH by 9045D						7.00	6.96	1	3
Batch number: 14142162401B	Sample number(s): 7471504-7471510 BKG: 7471505								
14a Moisture Content by 160.3						7.0	7.9	12	20
14a Moisture Content by 160.3						7.0	7.9	12	20
14a Moisture Content by 160.3						7.0	7.9	12	20
Batch number: 14148003	Sample number(s): 7471504-7471507,7471509-7471510 UNSPK: 7471505								
2378-TCDD	93	93	40-135	0	20				
12378-PeCDD	94	95	40-135	1	20				
123478-HxCDD	97	97	40-135	0	20				
123678-HxCDD	94	93	40-135	1	20				
123789-HxCDD	95	94	40-135	1	20				
1234678-HpCDD	94	93	40-135	1	20				
OCDD	102	92	40-135	10	20				
2378-TCDF	100	99	40-135	1	20				
12378-PeCDF	96	99	40-135	3	20				
23478-PeCDF	98	98	40-135	1	20				
123478-HxCDF	96	96	40-135	0	20				
123678-HxCDF	95	94	40-135	1	20				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475897
Reported: 06/03/14 at 04:35 PM

Sample Matrix Quality Control

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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
123789-HxCDF	94	96	40-135	2	20				
234678-HxCDF	98	97	40-135	1	20				
1234678-HpCDF	93	93	40-135	0	20				
1234789-HpCDF	94	93	40-135	1	20				
OCDF	93	93	40-135	1	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14142SLF026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7471504	88	99	82
7471505	93	98	83
7471506	90	100	83
7471507	89	99	82
7471509	89	96	82
7471510	89	101	82
Blank	92	106	85
LCS	96	110	88
MS	90	100	83
MSD	89	99	82
Limits:	59-115	61-118	70-127

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14142A94A

	Trifluorotoluene-F
7471503	86
Blank	86
LCS	97
LCSD	94
Limits:	63-135

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 14147B16A

	Trifluorotoluene-F
7471505	79
7471506	90
7471507	83
7471509	88

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475897
Reported: 06/03/14 at 04:35 PM

Surrogate Quality Control

7471510	83	
Blank	98	
LCS	101	
MS	90	
MSD	83	

Limits: 50-142

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141430011A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7471504	101	107
7471505	91	94
7471506	104	114
7471507	95	96
7471509	99	104
7471510	97	104
Blank	104	108
LCS	104	117
LCSD	102	112
MS	104	114
MSD	95	96
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141440030A

	Chlorobenzene	Orthoterphenyl
7471504	75	91
7471505	75	88
7471506	75	85
7471507	77	88
7471509	74	88
7471510	79	92
Blank	79	91
LCS	80	94
MS	75	85
MSD	77	88
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141440031A

	Chlorobenzene	Orthoterphenyl
7471504	61	74
7471505	69	77
7471506	73	84
7471507	65	75
7471509	61	69
7471510	60	72
Blank	79	90
LCS	77	87
MS	73	84

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475897
Reported: 06/03/14 at 04:35 PM

Surrogate Quality Control

MSD	65	75
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 14148003

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7471504	61	66	71	71	70	73
7471505	58	60	64	62	63	60
7471506	82	83	88	85	86	84
7471507	70	72	79	79	79	74
7471509	65	69	72	72	73	69
7471510	69	70	78	76	76	72
Blank	81	87	91	92	92	89
MS	82	83	88	85	86	84
MSD	70	72	79	79	79	74
OPR	66	73	80	79	80	76
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7471504	67	56	64	59	59	66
7471505	51	54	62	53	54	59
7471506	72	77	82	75	76	82
7471507	63	66	71	66	69	74
7471509	58	60	68	62	64	68
7471510	62	64	69	65	68	73
Blank	76	76	85	80	81	86
MS	72	77	82	75	76	82
MSD	63	66	71	66	69	74
OPR	69	57	69	63	63	71
Limits:	17-157	24-169	24-185	21-178	26-152	26-123

	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF
7471504	62	58	81	56	50
7471505	56	62	69	46	38
7471506	78	83	91	65	56
7471507	71	71	81	59	49
7471509	64	65	78	52	43
7471510	69	71	81	58	48
Blank	83	87	100	69	58
MS	78	83	91	65	56
MSD	71	71	81	59	49
OPR	66	64	87	54	46
Limits:	28-136	29-147	28-143	26-138	17-157

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SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/20/2014

CarrierName: FedEx

AirbillNo: 7700 4439 7602

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

A-13013 G-1475897 S-747503-10

COC No: 20140520-07

Cooler #: 1

Lab: Lancaster

Lab Phone: 717-556-7259

Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488--09a	Other Analysis/Notes
TB1-052014	5/20/14 08:00	WQ	HCl	6 - 40 mL Vial	10 day																		X	X																
FDG2-SL-874-SA5A-SB-0.0-0.5	5/20/14 08:20	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X			X				SMSAPM			X															
FDG2-SL-874-SA5A-SB-4.0-5.0MS	5/20/14 09:15	SO	None	6 - 16 oz glass	10 day	X	X					X		X	X			X							X															MSMSD
FDG2-SL-874-SA5A-SB-4.0-5.0MS	5/20/14 09:15	SO	None	6 - Encore	10 day																				X															MSMSD
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/14 09:25	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X								X														For all EFH, silica gel
FDG2-SL-1174-SA5A-SB-4.0-5.0	5/20/14 09:25	SO	None	2 - Encore	10 day																				X															clean up required on half
FDG2-SL-874-SA5A-SB-12.0-13.0	5/20/14 10:15	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X								X															the extract. Analyze both
FDG2-SL-874-SA5A-SB-12.0-13.0	5/20/14 10:15	SO	None	2 - Encore	10 day																				X															extracts for EFH.

Special Instructions:

Sampler: Randy Roberts

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
									5.21.14 950		

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 15127

Group Number(s): 1475897

Client: CDM

SSFL

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/21/2014 9:50
Number of Packages:	2	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	9
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	Yes		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Brandy Barclay (2299) at 11:13 on 05/21/2014

Samples Chilled Details: SSFL

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT146	1.3	DT	Wet	Y	Bagged	N	N
2	DT146	1.2	DT	Wet	Y	Bagged	N	N

Container Quantity Discrepancy Details: SSFL

Sample ID on COC	Container Qty. Received	Container Qty. on COC	Comments
FDG2-SL-874-SA5A-0.0-0.5	3	2	rec 1 4oz jar & 2 sleeves

General Comments: TB1 rec 3 vials

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 03, 2014

Project: SSFL Phase 3 Sampling

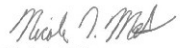
Submittal Date: 05/21/2014
Group Number: 1475905
SDG: PH189
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB3-052014 Water	7471531
SL-611-SA8-TR-0.5 Grab Soil	7471532
SL-611-SA8-TR-5.0 Grab Soil	7471533
SL-611-SA8-TR-10.5 Grab Soil	7471534
SL-570-SA6-TR-6.0 Grab Soil	7471535
SL-570-SA6-TR-2.0 Grab Soil	7471536
SL-570-SA6-TR-0.5 Grab Soil	7471537
SL-569-SA6-TR-2.5 Grab Soil	7471538
SL-569-SA6-TR-0.5 Grab Soil	7471539

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,



Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: TB3-052014 Water
SSFL Phase 3 Subarea 8/6

LL Sample # WW 7471531
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 08:00

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

20TB3 SDG#: PH189-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14142A94A	05/27/2014 15:01	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14142A94A	05/27/2014 15:01	Marie D Beamenderfer	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-611-SA8-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7471532
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:10 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61105 SDG#: PH189-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.71	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	0.85	J	1.8	0.71	1
12969	Benzo(a)pyrene	50-32-8	0.72	J	1.8	0.71	1
12969	Benzo(b)fluoranthene	205-99-2	2.2		1.8	0.71	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.3	J	1.8	0.71	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.71	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.4	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.4	1
12969	Chrysene	218-01-9	2.1		1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.71	1
12969	Diethylphthalate	84-66-2	19	U	19	6.4	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.4	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	11	J	19	6.4	1
12969	Fluoranthene	206-44-0	1.5	J	1.8	0.71	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.71	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.90	J	1.8	0.71	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.71	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.71	1
12969	Naphthalene	91-20-3	1.0	J	1.8	0.71	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.71	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.4	1
12969	Phenanthrene	85-01-8	1.3	J	1.8	0.71	1
12969	Pyrene	129-00-0	1.3	J	1.8	0.71	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.4	1
13099	PCB-1242	53469-21-9	18	U	18	4.4	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	99		18	4.7	1
13099	PCB-1260	11096-82-5	30		18	4.2	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.4	U	5.4	2.2	1
12952	EFH (C15-C20)	n.a.	5.4	U	5.4	2.2	1
12952	EFH (C21-C30)	n.a.	42		5.4	2.2	1
12952	EFH (C30-C40)	n.a.	56		11	4.3	1
12952	EFH (C8-C11)	n.a.	5.4	U	5.4	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.4	U	5.4	2.2	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-611-SA8-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7471532
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:10 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61105 SDG#: PH189-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
13197	EFH C21-C30 w/ SiGel	n.a.	29		5.4	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	30		11	4.3	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
	The reverse surrogate, capric acid, is present at <1%.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	21,900		42.1	7.58	1
06944	Antimony	7440-36-0	4.21	U	4.21	0.778	1
06935	Arsenic	7440-38-2	3.28	J	4.21	0.736	1
06946	Barium	7440-39-3	90.0		1.05	0.0347	1
06947	Beryllium	7440-41-7	0.714	J	1.05	0.0705	1
07914	Boron	7440-42-8	18.0		10.5	0.884	1
06949	Cadmium	7440-43-9	1.05	U	1.05	0.0799	1
01650	Calcium	7440-70-2	53,400		21.0	3.51	1
06951	Chromium	7440-47-3	30.9		3.16	0.168	1
06952	Cobalt	7440-48-4	8.21		1.05	0.104	1
06953	Copper	7440-50-8	20.5		2.10	0.305	1
01654	Iron	7439-89-6	26,700		84.1	7.62	2
06955	Lead	7439-92-1	17.2		3.16	0.526	1
01656	Lithium	7439-93-2	20.9		4.2	0.36	1
01657	Magnesium	7439-95-4	6,980		10.5	1.76	1
06958	Manganese	7439-96-5	403		1.05	0.0873	1
06960	Molybdenum	7439-98-7	2.10	U	2.10	0.179	1
06961	Nickel	7440-02-0	17.7		2.10	0.137	1
10145	Phosphorus	7723-14-0	669		10.5	3.04	1
01662	Potassium	7440-09-7	6,150		105	8.77	1
01667	Sodium	7440-23-5	112		105	17.6	1
06969	Tin	7440-31-5	3.09	J	10.5	0.231	1
06970	Titanium	7440-32-6	1,020		1.05	0.179	1
06971	Vanadium	7440-62-2	54.4		1.05	0.137	1
06972	Zinc	7440-66-6	78.3		4.21	0.210	1
10146	Zirconium	7440-67-7	5.67		5.26	0.884	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.287	J	0.421	0.105	2
06142	Silver	7440-22-4	0.0335	J	0.210	0.0273	2
06144	Strontium	7440-24-6	108		1.05	0.179	5
06145	Thallium	7440-28-0	0.311		0.210	0.0316	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0197		0.0170	0.0102	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.95		0.0100	0.0100	1
	The pH was measured in water at 21.9 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	

*=This limit was used in the evaluation of the final result

Sample Description: SL-611-SA8-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7471532
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:10 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61105 SDG#: PH189-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	7.7	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: SL-611-SA8-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7471532
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:10 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61105 SDG#: PH189-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.07	U	1.07	0.0902	1
11031	12378-PeCDD	40321-76-4	5.34	U	5.34	0.116	1
11031	123478-HxCDD	39227-28-6	0.0787	JQ	5.34	0.0564	1
11031	123678-HxCDD	57653-85-7	0.214	JBQ	5.34	0.0583	1
11031	123789-HxCDD	19408-74-3	0.182	JBQ	5.34	0.0547	1
11031	1234678-HpCDD	35822-46-9	2.98	JB	5.34	0.109	1
11031	OCDD	3268-87-9	29.3	B	10.7	0.0656	1
11650	2378-TCDF-Conf	51207-31-9	1.21	C	1.07	0.147	1
11031	12378-PeCDF	57117-41-6	14.8	B	5.34	0.0803	1
11031	23478-PeCDF	57117-31-4	0.958	JBQ	5.34	0.0865	1
11031	123478-HxCDF	70648-26-9	0.416	JB	5.34	0.0812	1
11031	123678-HxCDF	57117-44-9	1.16	JB	5.34	0.0715	1
11031	123789-HxCDF	72918-21-9	5.34	U	5.34	0.0965	1
11031	234678-HxCDF	60851-34-5	0.415	JB	5.34	0.0775	1
11031	1234678-HpCDF	67562-39-4	0.792	JBQ	5.34	0.0329	1
11031	1234789-HpCDF	55673-89-7	0.122	JBQ	5.34	0.0593	1
11031	OCDF	39001-02-0	1.51	JBQ	10.7	0.112	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.802				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDF-Conf	70	24 - 169
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	74	23 - 140
13C12-OCDD	59	17 - 157
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	68	26 - 152
13C12-123678-HxCDF	75	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	62	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	54	26 - 138
13C12-OCDF	42	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-611-SA8-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7471532
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:10 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61105 SDG#: PH189-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-611-SA8-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7471532
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:10 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61105 SDG#: PH189-02

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14142SLF026	05/27/2014 07:48	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14142SLF026	05/23/2014 09:45	Katheryne V Sponheimer	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141430011A	05/26/2014 09:11	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141430011A	05/24/2014 04:15	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440030A	05/28/2014 04:23	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440031A	05/30/2014 23:22	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440031A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440030A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14148003	05/30/2014 17:53	Joseph D Anderson	1
11650	Dioxins/Furans in Solids-Conf	EPA 1613B October 1994	1	14148003	05/31/2014 21:03	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14148003	05/28/2014 10:10	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141430637001	05/28/2014 09:41	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141430637001	05/28/2014 09:41	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141430637001	05/28/2014 09:41	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141430637001	05/28/2014 09:41	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	141430637001	05/28/2014 09:41	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141430637001	05/28/2014 09:41	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	141430637001	05/28/2014 09:41	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141430637001	05/28/2014 09:41	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141430637001	05/28/2014 09:41	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141430637001	05/28/2014 09:41	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141430637001	05/28/2014 09:41	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141430637001	05/29/2014 07:46	Joanne M Gates	2
06955	Lead	SW-846 6010C	1	141430637001	05/28/2014 09:41	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141430637001	05/28/2014 09:41	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141430637001	05/28/2014 09:41	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141430637001	05/28/2014 09:41	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	141430637001	05/28/2014 09:41	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	141430637001	05/28/2014 09:41	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141430637001	05/28/2014 09:41	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	141430637001	05/28/2014 09:41	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141430637001	05/28/2014 09:41	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	141430637001	05/28/2014 09:41	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	141430637001	05/28/2014 09:41	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-611-SA8-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7471532
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:10 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61105 SDG#: PH189-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06971	Vanadium	SW-846 6010C	1	141430637001	05/28/2014 09:41	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141430637001	05/28/2014 09:41	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	141430637001	05/28/2014 09:41	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	141430637001B	05/28/2014 06:54	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141430637001A	05/28/2014 06:54	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141430637001A	05/28/2014 07:09	Choon Y Tian	5
06145	Thallium	SW-846 6020A	1	141430637001A	05/28/2014 06:54	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141410638002	05/23/2014 09:33	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141430637001	05/27/2014 07:53	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141410638002	05/22/2014 12:50	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14141039401A	05/21/2014 22:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14147162401A	05/27/2014 17:27	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-611-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7471533
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61150 SDG#: PH189-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.73	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.37	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.37	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.73	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.73	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.73	1
12969	Benzo(e)pyrene	192-97-2	19	U	19	3.7	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.73	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.73	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.6	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.6	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.37	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.73	1
12969	Diethylphthalate	84-66-2	20	U	20	6.6	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.6	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20	U	20	6.6	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.73	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.73	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.73	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.73	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.73	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.73	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.73	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.6	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.73	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.73	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	24.32
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	19	U	19	3.6	1
13099	PCB-1221	11104-28-2	19	U	19	5.6	1
13099	PCB-1232	11141-16-5	19	U	19	4.5	1
13099	PCB-1242	53469-21-9	19	U	19	4.5	1
13099	PCB-1248	12672-29-6	19	U	19	3.6	1
13099	PCB-1254	11097-69-1	19	U	19	4.8	1
13099	PCB-1260	11096-82-5	19	U	19	4.3	1
13099	PCB-1262	37324-23-5	19	U	19	3.6	1
13099	PCB-1268	11100-14-4	19	U	19	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	5.5	U	5.5	2.2	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-611-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7471533
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61150 SDG#: PH189-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	6.1		5.5	2.2	1
12952	EFH (C30-C40)	n.a.	12		11	4.4	1
12952	EFH (C8-C11)	n.a.	5.5	U	5.5	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.4	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	24,700		42.2	7.61	1
06944	Antimony	7440-36-0	4.22	U	4.22	0.781	1
06935	Arsenic	7440-38-2	1.96	J	4.22	0.739	1
06946	Barium	7440-39-3	112		1.06	0.0348	1
06947	Beryllium	7440-41-7	0.837	J	1.06	0.0707	1
07914	Boron	7440-42-8	15.4		10.6	0.887	1
06949	Cadmium	7440-43-9	1.06	U	1.06	0.0802	1
01650	Calcium	7440-70-2	30,500		21.1	3.53	1
06951	Chromium	7440-47-3	32.9		3.17	0.169	1
06952	Cobalt	7440-48-4	9.63		1.06	0.105	1
06953	Copper	7440-50-8	21.0		2.11	0.306	1
01654	Iron	7439-89-6	30,700		84.5	7.64	2
06955	Lead	7439-92-1	12.8		3.17	0.528	1
01656	Lithium	7439-93-2	25.8		4.2	0.36	1
01657	Magnesium	7439-95-4	7,260		10.6	1.76	1
06958	Manganese	7439-96-5	411		1.06	0.0876	1
06960	Molybdenum	7439-98-7	2.11	U	2.11	0.179	1
06961	Nickel	7440-02-0	18.9		2.11	0.137	1
10145	Phosphorus	7723-14-0	536		10.6	3.05	1
01662	Potassium	7440-09-7	5,590		106	8.81	1
01667	Sodium	7440-23-5	93.4	J	106	17.6	1
06969	Tin	7440-31-5	2.88	J	10.6	0.232	1
06970	Titanium	7440-32-6	1,060		1.06	0.179	1
06971	Vanadium	7440-62-2	60.1		1.06	0.137	1
06972	Zinc	7440-66-6	75.9		4.22	0.211	1
10146	Zirconium	7440-67-7	5.73		5.28	0.887	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.255	J	0.422	0.106	2
06142	Silver	7440-22-4	0.0429	J	0.211	0.0275	2
06144	Strontium	7440-24-6	65.1		0.422	0.0718	2
06145	Thallium	7440-28-0	0.363		0.211	0.0317	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0120	J	0.0177	0.0106	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-611-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7471533
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61150 SDG#: PH189-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D	n.a.	7.93	0.0100	0.0100	1
	The pH was measured in water at 21.9 C.					
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	9.8	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: SL-611-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7471533
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by BC

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61150 SDG#: PH189-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0883 JQ	1.07	0.0814	1
11031	12378-PeCDD	40321-76-4	0.0680 JBQ	5.33	0.0514	1
11031	123478-HxCDD	39227-28-6	5.33 U	5.33	0.0367	1
11031	123678-HxCDD	57653-85-7	5.33 U	5.33	0.0356	1
11031	123789-HxCDD	19408-74-3	0.0432 JB	5.33	0.0356	1
11031	1234678-HpCDD	35822-46-9	0.188 JBQ	5.33	0.0397	1
11031	OCDD	3268-87-9	0.976 JB	10.7	0.0399	1
11031	2378-TCDF	51207-31-9	1.07 U	1.07	0.0637	1
11031	12378-PeCDF	57117-41-6	0.241 JBQ	5.33	0.0335	1
11031	23478-PeCDF	57117-31-4	0.0352 JB	5.33	0.0346	1
11031	123478-HxCDF	70648-26-9	5.33 U	5.33	0.0300	1
11031	123678-HxCDF	57117-44-9	0.0718 JBQ	5.33	0.0252	1
11031	123789-HxCDF	72918-21-9	0.0558 JBQ	5.33	0.0310	1
11031	234678-HxCDF	60851-34-5	0.0521 JBQ	5.33	0.0266	1
11031	1234678-HpCDF	67562-39-4	0.0443 JB	5.33	0.0118	1
11031	1234789-HpCDF	55673-89-7	5.33 U	5.33	0.0226	1
11031	OCDF	39001-02-0	0.215 JB	10.7	0.0817	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0157			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	68	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	63	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	66	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	90	28 - 143
13C12-1234789-HpCDF	55	26 - 138
13C12-OCDF	44	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-611-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7471533
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61150 SDG#: PH189-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-611-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7471533
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61150 SDG#: PH189-03

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14142SLF026	05/27/2014 08:20	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14142SLF026	05/23/2014 09:45	Katheryne V Sponheimer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147B16A	05/29/2014 00:20	Marie D Beamenderfer	24.32
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414134570	05/21/2014 15:58	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414134570	05/21/2014 15:58	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141430011A	05/26/2014 09:29	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141430011A	05/24/2014 04:15	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440030A	05/28/2014 04:44	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440031A	05/30/2014 23:44	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440031A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440030A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14148003	05/30/2014 18:49	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14148003	05/28/2014 10:10	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141430637001	05/28/2014 09:45	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141430637001	05/28/2014 09:45	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141430637001	05/28/2014 09:45	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141430637001	05/28/2014 09:45	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	141430637001	05/28/2014 09:45	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141430637001	05/28/2014 09:45	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	141430637001	05/28/2014 09:45	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141430637001	05/28/2014 09:45	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141430637001	05/28/2014 09:45	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141430637001	05/28/2014 09:45	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141430637001	05/28/2014 09:45	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141430637001	05/29/2014 07:50	Joanne M Gates	2
06955	Lead	SW-846 6010C	1	141430637001	05/28/2014 09:45	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141430637001	05/28/2014 09:45	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141430637001	05/28/2014 09:45	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141430637001	05/28/2014 09:45	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	141430637001	05/28/2014 09:45	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	141430637001	05/28/2014 09:45	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141430637001	05/28/2014 09:45	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	141430637001	05/28/2014 09:45	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141430637001	05/28/2014 09:45	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-611-SA8-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7471533
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:15 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61150 SDG#: PH189-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010C	1	141430637001	05/28/2014 09:45	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	141430637001	05/28/2014 09:45	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	141430637001	05/28/2014 09:45	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141430637001	05/28/2014 09:45	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	141430637001	05/28/2014 09:45	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	141430637001B	05/28/2014 06:57	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141430637001A	05/28/2014 06:57	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141430637001A	05/28/2014 06:57	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141430637001A	05/28/2014 06:57	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141410638002	05/23/2014 09:35	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141430637001	05/27/2014 07:53	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141410638002	05/22/2014 12:50	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14141039401A	05/21/2014 22:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14147162401A	05/27/2014 17:27	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-611-SA8-TR-10.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7471534
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:20 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61110 SDG#: PH189-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.74	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.37	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.37	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.74	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.74	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.74	1
12969	Benzo(e)pyrene	192-97-2	19	U	19	3.7	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.74	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.74	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.7	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.7	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.37	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.74	1
12969	Diethylphthalate	84-66-2	20	U	20	6.7	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.7	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20	U	20	6.7	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.74	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.74	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.74	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.74	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.74	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.74	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.74	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.7	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.74	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.74	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2	23.28
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	19	U	19	3.6	1
13099	PCB-1221	11104-28-2	19	U	19	5.6	1
13099	PCB-1232	11141-16-5	19	U	19	4.5	1
13099	PCB-1242	53469-21-9	19	U	19	4.5	1
13099	PCB-1248	12672-29-6	19	U	19	3.6	1
13099	PCB-1254	11097-69-1	11	J	19	4.8	1
13099	PCB-1260	11096-82-5	9.7	J	19	4.3	1
13099	PCB-1262	37324-23-5	19	U	19	3.6	1
13099	PCB-1268	11100-14-4	19	U	19	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.6	U	5.6	2.2	1
12952	EFH (C15-C20)	n.a.	5.6	U	5.6	2.2	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-611-SA8-TR-10.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7471534
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:20 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61110 SDG#: PH189-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	8.1		5.6	2.2	1
12952	EFH (C30-C40)	n.a.	13		11	4.5	1
12952	EFH (C8-C11)	n.a.	5.6	U	5.6	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.6	U	5.6	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.6	U	5.6	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.6	U	5.6	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.5	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.6	U	5.6	2.2	1
	The reverse surrogate, capric acid, is present at <1%.						
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	27,100		43.9	7.92	1
06944	Antimony	7440-36-0	4.39	U	4.39	0.812	1
06935	Arsenic	7440-38-2	2.45	J	4.39	0.769	1
06946	Barium	7440-39-3	110		1.10	0.0362	1
06947	Beryllium	7440-41-7	0.878	J	1.10	0.0736	1
07914	Boron	7440-42-8	16.3		11.0	0.922	1
06949	Cadmium	7440-43-9	1.10	U	1.10	0.0834	1
01650	Calcium	7440-70-2	23,500		22.0	3.67	1
06951	Chromium	7440-47-3	35.9		3.29	0.176	1
06952	Cobalt	7440-48-4	9.55		1.10	0.109	1
06953	Copper	7440-50-8	20.6		2.20	0.318	1
01654	Iron	7439-89-6	31,800		87.8	7.95	2
06955	Lead	7439-92-1	13.3		3.29	0.549	1
01656	Lithium	7439-93-2	29.7		4.4	0.37	1
01657	Magnesium	7439-95-4	7,670		11.0	1.83	1
06958	Manganese	7439-96-5	392		1.10	0.0911	1
06960	Molybdenum	7439-98-7	2.20	U	2.20	0.187	1
06961	Nickel	7440-02-0	19.2		2.20	0.143	1
10145	Phosphorus	7723-14-0	370		11.0	3.17	1
01662	Potassium	7440-09-7	4,280		110	9.16	1
01667	Sodium	7440-23-5	116		110	18.3	1
06969	Tin	7440-31-5	3.33	J	11.0	0.242	1
06970	Titanium	7440-32-6	1,190		1.10	0.187	1
06971	Vanadium	7440-62-2	66.2		1.10	0.143	1
06972	Zinc	7440-66-6	75.0		4.39	0.220	1
10146	Zirconium	7440-67-7	6.78		5.49	0.922	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.194	J	0.439	0.110	2
06142	Silver	7440-22-4	0.0414	J	0.220	0.0285	2
06144	Strontium	7440-24-6	67.8		0.439	0.0747	2
06145	Thallium	7440-28-0	0.394		0.220	0.0329	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0124	J	0.0182	0.0109	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-611-SA8-TR-10.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7471534
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:20 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61110 SDG#: PH189-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 22 C.	n.a.	8.06	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	10.7	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-611-SA8-TR-10.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7471534
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:20 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61110 SDG#: PH189-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0778	JQ	1.08	0.0715	1
11031	12378-PeCDD	40321-76-4	0.249	JBQ	5.39	0.0667	1
11031	123478-HxCDD	39227-28-6	0.100	J	5.39	0.0321	1
11031	123678-HxCDD	57653-85-7	0.0832	JBQ	5.39	0.0325	1
11031	123789-HxCDD	19408-74-3	0.0692	JBQ	5.39	0.0342	1
11031	1234678-HpCDD	35822-46-9	0.377	JBQ	5.39	0.0491	1
11031	OCDD	3268-87-9	4.16	JB	10.8	0.0450	1
11031	2378-TCDF	51207-31-9	0.232	J	1.08	0.0643	1
11031	12378-PeCDF	57117-41-6	1.95	JB	5.39	0.0409	1
11031	23478-PeCDF	57117-31-4	0.237	JB	5.39	0.0421	1
11031	123478-HxCDF	70648-26-9	0.151	JBQ	5.39	0.0348	1
11031	123678-HxCDF	57117-44-9	0.227	JBQ	5.39	0.0296	1
11031	123789-HxCDF	72918-21-9	0.0685	JBQ	5.39	0.0366	1
11031	234678-HxCDF	60851-34-5	0.0789	JB	5.39	0.0319	1
11031	1234678-HpCDF	67562-39-4	0.157	JB	5.39	0.0137	1
11031	1234789-HpCDF	55673-89-7	0.0432	JBQ	5.39	0.0245	1
11031	OCDF	39001-02-0	0.440	JB	10.8	0.0828	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.174				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	75	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	62	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	90	28 - 143
13C12-1234789-HpCDF	55	26 - 138
13C12-OCDF	44	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-611-SA8-TR-10.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7471534
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:20 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61110 SDG#: PH189-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-611-SA8-TR-10.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7471534
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:20 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61110 SDG#: PH189-04

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14142SLF026	05/27/2014 08:52	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14142SLF026	05/23/2014 09:45	Katheryne V Sponheimer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147B16A	05/29/2014 00:57	Marie D Beamenderfer	23.28
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414134570	05/21/2014 15:56	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414134570	05/21/2014 15:57	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141430011A	05/26/2014 09:48	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141430011A	05/24/2014 04:15	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440030A	05/28/2014 05:06	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440031A	05/31/2014 00:05	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440031A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440030A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14148003	05/30/2014 19:46	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14148003	05/28/2014 10:10	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141430637001	05/28/2014 09:49	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141430637001	05/28/2014 09:49	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141430637001	05/28/2014 09:49	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141430637001	05/28/2014 09:49	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	141430637001	05/28/2014 09:49	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141430637001	05/28/2014 09:49	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	141430637001	05/28/2014 09:49	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141430637001	05/28/2014 09:49	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141430637001	05/28/2014 09:49	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141430637001	05/28/2014 09:49	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141430637001	05/28/2014 09:49	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141430637001	05/29/2014 07:54	Joanne M Gates	2
06955	Lead	SW-846 6010C	1	141430637001	05/28/2014 09:49	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141430637001	05/28/2014 09:49	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141430637001	05/28/2014 09:49	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141430637001	05/28/2014 09:49	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	141430637001	05/28/2014 09:49	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	141430637001	05/28/2014 09:49	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141430637001	05/28/2014 09:49	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	141430637001	05/28/2014 09:49	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141430637001	05/28/2014 09:49	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-611-SA8-TR-10.5 Grab Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7471534
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 09:20 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61110 SDG#: PH189-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010C	1	141430637001	05/28/2014 09:49	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	141430637001	05/28/2014 09:49	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	141430637001	05/28/2014 09:49	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141430637001	05/28/2014 09:49	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	141430637001	05/28/2014 09:49	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	141430637001B	05/28/2014 06:59	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141430637001A	05/28/2014 06:59	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141430637001A	05/28/2014 06:59	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141430637001A	05/28/2014 06:59	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141410638002	05/23/2014 09:37	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141430637001	05/27/2014 07:53	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141410638002	05/22/2014 12:50	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14141039401A	05/21/2014 22:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14147162401A	05/27/2014 17:27	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-570-SA6-TR-6.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471535
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 13:43 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57060 SDG#: PH189-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.71	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.71	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.71	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.71	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.71	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.71	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.4	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.4	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.71	1
12969	Diethylphthalate	84-66-2	19	U	19	6.4	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.4	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.4	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.71	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.71	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.71	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.71	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.71	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.71	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.71	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.4	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.71	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.71	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2	23.95
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.7	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.4	U	5.4	2.2	1
12952	EFH (C15-C20)	n.a.	5.4	U	5.4	2.2	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-570-SA6-TR-6.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471535
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 13:43 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57060 SDG#: PH189-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.4	U	5.4	2.2	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.3	1
12952	EFH (C8-C11)	n.a.	5.4	U	5.4	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.3	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	21,900		42.3	7.62	1
06944	Antimony	7440-36-0	4.23	U	4.23	0.782	1
06935	Arsenic	7440-38-2	3.03	J	4.23	0.740	1
06946	Barium	7440-39-3	111		1.06	0.0349	1
06947	Beryllium	7440-41-7	0.887	J	1.06	0.0708	1
07914	Boron	7440-42-8	8.53	J	10.6	0.887	1
06949	Cadmium	7440-43-9	1.06	U	1.06	0.0803	1
01650	Calcium	7440-70-2	2,550		21.1	3.53	1
06951	Chromium	7440-47-3	25.1		3.17	0.169	1
06952	Cobalt	7440-48-4	6.11		1.06	0.105	1
06953	Copper	7440-50-8	12.2		2.11	0.306	1
01654	Iron	7439-89-6	25,600		42.3	3.82	1
06955	Lead	7439-92-1	9.18		3.17	0.528	1
01656	Lithium	7439-93-2	30.2		4.2	0.36	1
01657	Magnesium	7439-95-4	5,120		10.6	1.76	1
06958	Manganese	7439-96-5	249		1.06	0.0877	1
06960	Molybdenum	7439-98-7	0.322	J	2.11	0.180	1
06961	Nickel	7440-02-0	13.1		2.11	0.137	1
10145	Phosphorus	7723-14-0	193		10.6	3.05	1
01662	Potassium	7440-09-7	1,680		106	8.81	1
01667	Sodium	7440-23-5	116		106	17.6	1
06969	Tin	7440-31-5	3.64	J	10.6	0.232	1
06970	Titanium	7440-32-6	1,290		1.06	0.180	1
06971	Vanadium	7440-62-2	49.6		1.06	0.137	1
06972	Zinc	7440-66-6	52.5		4.23	0.211	1
10146	Zirconium	7440-67-7	3.41	J	5.28	0.887	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.423	U	0.423	0.106	2
06142	Silver	7440-22-4	0.0847	J	0.211	0.0275	2
06144	Strontium	7440-24-6	28.4		0.423	0.0718	2
06145	Thallium	7440-28-0	0.275		0.211	0.0317	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0189		0.0176	0.0105	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-570-SA6-TR-6.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471535
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 13:43 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57060 SDG#: PH189-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D	n.a.	6.54	0.0100	0.0100	1
	The pH was measured in water at 22.2 C.					
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	7.2	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: SL-570-SA6-TR-6.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471535
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 13:43 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57060 SDG#: PH189-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.06	U	1.06	0.0769	1
11031	12378-PeCDD	40321-76-4	0.117	JBQ	5.30	0.0494	1
11031	123478-HxCDD	39227-28-6	5.30	U	5.30	0.0297	1
11031	123678-HxCDD	57653-85-7	5.30	U	5.30	0.0303	1
11031	123789-HxCDD	19408-74-3	0.0334	JBQ	5.30	0.0302	1
11031	1234678-HpCDD	35822-46-9	0.161	JB	5.30	0.0424	1
11031	OCDD	3268-87-9	1.93	JB	10.6	0.0363	1
11031	2378-TCDF	51207-31-9	0.0531	JQ	1.06	0.0489	1
11031	12378-PeCDF	57117-41-6	0.139	JB	5.30	0.0287	1
11031	23478-PeCDF	57117-31-4	0.107	JBQ	5.30	0.0296	1
11031	123478-HxCDF	70648-26-9	0.0647	JBQ	5.30	0.0262	1
11031	123678-HxCDF	57117-44-9	0.0383	JBQ	5.30	0.0231	1
11031	123789-HxCDF	72918-21-9	5.30	U	5.30	0.0320	1
11031	234678-HxCDF	60851-34-5	5.30	U	5.30	0.0250	1
11031	1234678-HpCDF	67562-39-4	0.0279	JB	5.30	0.0132	1
11031	1234789-HpCDF	55673-89-7	0.0246	JBQ	5.30	0.0238	1
11031	OCDF	39001-02-0	0.132	JBQ	10.6	0.0711	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.00665				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	71	23 - 140
13C12-OCDD	60	17 - 157
13C12-2378-TCDF	66	24 - 169
13C12-12378-PeCDF	73	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	75	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	62	29 - 147
13C12-1234678-HpCDF	85	28 - 143
13C12-1234789-HpCDF	53	26 - 138
13C12-OCDF	43	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-570-SA6-TR-6.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471535
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 13:43 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57060 SDG#: PH189-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-570-SA6-TR-6.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471535
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 13:43 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57060 SDG#: PH189-05

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14142SLF026	05/27/2014 09:24	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14142SLF026	05/23/2014 09:45	Katheryne V Sponheimer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147B16A	05/29/2014 01:35	Marie D Beamenderfer	23.95
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414134570	05/21/2014 15:35	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414134570	05/21/2014 15:35	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141430011A	05/26/2014 10:06	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141430011A	05/24/2014 04:15	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440030A	05/28/2014 02:56	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440031A	05/31/2014 00:27	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440031A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440030A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14148003	05/30/2014 20:42	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14148003	05/28/2014 10:10	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-570-SA6-TR-6.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471535
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 13:43 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57060 SDG#: PH189-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	141430637001	05/28/2014 09:53	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	141430637001B	05/28/2014 07:01	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141430637001A	05/28/2014 07:01	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141430637001A	05/28/2014 07:01	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141430637001A	05/28/2014 07:01	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141410638002	05/23/2014 09:39	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141430637001	05/27/2014 07:53	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141410638002	05/22/2014 12:50	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14141039401A	05/21/2014 22:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14147162401A	05/27/2014 17:27	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-570-SA6-TR-2.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471536
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 13:00 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57020 SDG#: PH189-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	1.7	U	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.70	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.70	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.70	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.70	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1	U	1	0.2	22.94
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.2	1
13099	PCB-1242	53469-21-9	18	U	18	4.2	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.0	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-570-SA6-TR-2.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471536
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 13:00 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57020 SDG#: PH189-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,500		40.5	7.31	1
06944	Antimony	7440-36-0	4.05	U	4.05	0.750	1
06935	Arsenic	7440-38-2	2.24	J	4.05	0.709	1
06946	Barium	7440-39-3	118		1.01	0.0334	1
06947	Beryllium	7440-41-7	0.628	J	1.01	0.0679	1
07914	Boron	7440-42-8	8.13	J	10.1	0.851	1
06949	Cadmium	7440-43-9	1.01	U	1.01	0.0770	1
01650	Calcium	7440-70-2	2,110		20.3	3.38	1
06951	Chromium	7440-47-3	19.3		3.04	0.162	1
06952	Cobalt	7440-48-4	5.76		1.01	0.100	1
06953	Copper	7440-50-8	13.9		2.03	0.294	1
01654	Iron	7439-89-6	19,700		40.5	3.67	1
06955	Lead	7439-92-1	7.33		3.04	0.507	1
01656	Lithium	7439-93-2	21.4		4.1	0.34	1
01657	Magnesium	7439-95-4	4,050		10.1	1.69	1
06958	Manganese	7439-96-5	440		1.01	0.0841	1
06960	Molybdenum	7439-98-7	0.447	J	2.03	0.172	1
06961	Nickel	7440-02-0	12.4		2.03	0.132	1
10145	Phosphorus	7723-14-0	360		10.1	2.93	1
01662	Potassium	7440-09-7	3,700		101	8.45	1
01667	Sodium	7440-23-5	79.9	J	101	16.9	1
06969	Tin	7440-31-5	3.07	J	10.1	0.223	1
06970	Titanium	7440-32-6	1,110		1.01	0.172	1
06971	Vanadium	7440-62-2	35.6		1.01	0.132	1
06972	Zinc	7440-66-6	57.4		4.05	0.203	1
10146	Zirconium	7440-67-7	3.15	J	5.07	0.851	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.126	J	0.405	0.101	2
06142	Silver	7440-22-4	0.0513	J	0.203	0.0263	2
06144	Strontium	7440-24-6	26.2		0.405	0.0689	2
06145	Thallium	7440-28-0	0.362		0.203	0.0304	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0172	U	0.0172	0.0103	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-570-SA6-TR-2.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471536
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 13:00 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57020 SDG#: PH189-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 22 C.	n.a.	7.22	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	5.1	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-570-SA6-TR-2.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471536
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 13:00 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57020 SDG#: PH189-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.03	U	1.03	0.0805	1
11031	12378-PeCDD	40321-76-4	5.14	U	5.14	0.0575	1
11031	123478-HxCDD	39227-28-6	5.14	U	5.14	0.0360	1
11031	123678-HxCDD	57653-85-7	0.131	JB	5.14	0.0360	1
11031	123789-HxCDD	19408-74-3	0.183	JBQ	5.14	0.0341	1
11031	1234678-HpCDD	35822-46-9	0.343	JBQ	5.14	0.0468	1
11031	OCDD	3268-87-9	4.52	JB	10.3	0.0443	1
11031	2378-TCDF	51207-31-9	1.03	U	1.03	0.0586	1
11031	12378-PeCDF	57117-41-6	0.0597	JBQ	5.14	0.0320	1
11031	23478-PeCDF	57117-31-4	0.0321	JBQ	5.14	0.0315	1
11031	123478-HxCDF	70648-26-9	0.0398	JB	5.14	0.0311	1
11031	123678-HxCDF	57117-44-9	5.14	U	5.14	0.0288	1
11031	123789-HxCDF	72918-21-9	0.238	JBQ	5.14	0.0318	1
11031	234678-HxCDF	60851-34-5	0.0393	JBQ	5.14	0.0299	1
11031	1234678-HpCDF	67562-39-4	0.0639	JBQ	5.14	0.0134	1
11031	1234789-HpCDF	55673-89-7	0.0366	JBQ	5.14	0.0239	1
11031	OCDF	39001-02-0	0.280	JBQ	10.3	0.0791	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0184				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	68	25 - 164
13C12-12378-PeCDD	68	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	72	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	69	23 - 140
13C12-OCDD	59	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	62	21 - 178
13C12-123478-HxCDF	65	26 - 152
13C12-123678-HxCDF	71	26 - 123
13C12-234678-HxCDF	66	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	82	28 - 143
13C12-1234789-HpCDF	52	26 - 138
13C12-OCDF	43	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-570-SA6-TR-2.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471536
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 13:00 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57020 SDG#: PH189-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-570-SA6-TR-2.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471536
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 13:00 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57020 SDG#: PH189-06

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14142SLF026	05/27/2014 09:56	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14142SLF026	05/23/2014 09:45	Katheryne V Sponheimer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147B16A	05/29/2014 02:13	Marie D Beamenderfer	22.94
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414134570	05/21/2014 15:52	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414134570	05/21/2014 15:53	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141430011A	05/26/2014 10:25	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141430011A	05/24/2014 04:15	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440030A	05/28/2014 03:39	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440031A	05/31/2014 00:49	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440031A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440030A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14148003	05/30/2014 21:39	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14148003	05/28/2014 10:10	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-570-SA6-TR-2.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471536
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 13:00 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57020 SDG#: PH189-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	141430637001	05/28/2014 09:57	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	141430637001B	05/28/2014 07:04	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141430637001A	05/28/2014 07:04	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141430637001A	05/28/2014 07:04	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141430637001A	05/28/2014 07:04	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141410638002	05/23/2014 09:46	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141430637001	05/27/2014 07:53	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141410638002	05/22/2014 12:50	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14141039401A	05/21/2014 22:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14147162401A	05/27/2014 17:27	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-570-SA6-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471537
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 12:10 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57005 SDG#: PH189-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	1.7	U	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.2	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.69	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.2	1
13099	PCB-1242	53469-21-9	17	U	17	4.2	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	17	U	17	4.5	1
13099	PCB-1260	11096-82-5	17	U	17	4.0	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	7.5		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	19		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.2	U	5.2	2.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-570-SA6-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471537
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 12:10 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57005 SDG#: PH189-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
13197	EFH C21-C30 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
	The reverse surrogate, capric acid, is present at <1%.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,700		41.3	7.44	1
06944	Antimony	7440-36-0	4.13	U	4.13	0.764	1
06935	Arsenic	7440-38-2	2.22	J	4.13	0.722	1
06946	Barium	7440-39-3	99.3		1.03	0.0341	1
06947	Beryllium	7440-41-7	0.571	J	1.03	0.0691	1
07914	Boron	7440-42-8	8.14	J	10.3	0.867	1
06949	Cadmium	7440-43-9	1.03	U	1.03	0.0784	1
01650	Calcium	7440-70-2	2,760		20.6	3.45	1
06951	Chromium	7440-47-3	19.7		3.10	0.165	1
06952	Cobalt	7440-48-4	5.79		1.03	0.102	1
06953	Copper	7440-50-8	12.9		2.06	0.299	1
01654	Iron	7439-89-6	20,300		41.3	3.74	1
06955	Lead	7439-92-1	8.41		3.10	0.516	1
01656	Lithium	7439-93-2	25.2		4.1	0.35	1
01657	Magnesium	7439-95-4	4,730		10.3	1.72	1
06958	Manganese	7439-96-5	324		1.03	0.0857	1
06960	Molybdenum	7439-98-7	0.243	J	2.06	0.175	1
06961	Nickel	7440-02-0	12.1		2.06	0.134	1
10145	Phosphorus	7723-14-0	496		10.3	2.98	1
01662	Potassium	7440-09-7	3,610		103	8.61	1
01667	Sodium	7440-23-5	78.9	J	103	17.2	1
06969	Tin	7440-31-5	3.01	J	10.3	0.227	1
06970	Titanium	7440-32-6	1,090		1.03	0.175	1
06971	Vanadium	7440-62-2	35.5		1.03	0.134	1
06972	Zinc	7440-66-6	57.8		4.13	0.206	1
10146	Zirconium	7440-67-7	2.53	J	5.16	0.867	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.154	J	0.413	0.103	2
06142	Silver	7440-22-4	0.0617	J	0.206	0.0268	2
06144	Strontium	7440-24-6	19.5		0.413	0.0702	2
06145	Thallium	7440-28-0	0.301		0.206	0.0310	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0155	J	0.0166	0.010	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.34		0.0100	0.0100	1
	The pH was measured in water at 21.6 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	

*=This limit was used in the evaluation of the final result

Sample Description: SL-570-SA6-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471537
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 12:10 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57005 SDG#: PH189-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	3.1	0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

Sample Description: SL-570-SA6-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471537
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 12:10 by BC

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57005 SDG#: PH189-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.02	U	1.02	0.0752	1
11031	12378-PeCDD	40321-76-4	0.177	JB	5.10	0.0508	1
11031	123478-HxCDD	39227-28-6	0.188	J	5.10	0.0502	1
11031	123678-HxCDD	57653-85-7	0.313	JBQ	5.10	0.0494	1
11031	123789-HxCDD	19408-74-3	0.507	JBQ	5.10	0.0485	1
11031	1234678-HpCDD	35822-46-9	6.34	B	5.10	0.0673	1
11031	OCDD	3268-87-9	118	B	10.2	0.0577	1
11031	2378-TCDF	51207-31-9	0.0700	JQ	1.02	0.0594	1
11031	12378-PeCDF	57117-41-6	0.135	JB	5.10	0.0285	1
11031	23478-PeCDF	57117-31-4	0.0683	JBQ	5.10	0.0288	1
11031	123478-HxCDF	70648-26-9	0.0778	JBQ	5.10	0.0342	1
11031	123678-HxCDF	57117-44-9	0.101	JB	5.10	0.0311	1
11031	123789-HxCDF	72918-21-9	0.141	JB	5.10	0.0352	1
11031	234678-HxCDF	60851-34-5	0.0900	JBQ	5.10	0.0322	1
11031	1234678-HpCDF	67562-39-4	0.511	JB	5.10	0.0196	1
11031	1234789-HpCDF	55673-89-7	5.10	U	5.10	0.0358	1
11031	OCDF	39001-02-0	1.71	JB	10.2	0.0796	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.329				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	63	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	66	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	76	29 - 147
13C12-1234678-HpCDF	91	28 - 143
13C12-1234789-HpCDF	57	26 - 138
13C12-OCDF	46	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-570-SA6-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471537
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 12:10 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57005 SDG#: PH189-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-570-SA6-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471537
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 12:10 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57005 SDG#: PH189-07

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14142SLF026	05/27/2014 10:28	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14142SLF026	05/23/2014 09:45	Katheryne V Sponheimer	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141430011A	05/26/2014 11:57	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141430011A	05/24/2014 04:15	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440030A	05/28/2014 07:37	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440031A	05/31/2014 01:10	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440031A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440030A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14148003	05/30/2014 22:35	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14148003	05/28/2014 10:10	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-570-SA6-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471537
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 12:10 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57005 SDG#: PH189-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	141430637001	05/28/2014 10:01	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	141430637001B	05/28/2014 07:06	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141430637001A	05/28/2014 07:06	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141430637001A	05/28/2014 07:06	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141430637001A	05/28/2014 07:06	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141410638002	05/23/2014 09:48	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141430637001	05/27/2014 07:53	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141410638002	05/22/2014 12:50	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14141039401B	05/21/2014 22:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14147162401A	05/27/2014 17:27	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-569-SA6-TR-2.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471538
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 11:15 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56925 SDG#: PH189-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.70	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.70	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.70	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.70	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.70	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	0.9	U	0.9	0.2	21.66
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-569-SA6-TR-2.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471538
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 11:15 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56925 SDG#: PH189-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	21,000		41.1	7.40	1
06944	Antimony	7440-36-0	4.11	U	4.11	0.759	1
06935	Arsenic	7440-38-2	2.83	J	4.11	0.718	1
06946	Barium	7440-39-3	95.9		1.03	0.0339	1
06947	Beryllium	7440-41-7	0.817	J	1.03	0.0688	1
07914	Boron	7440-42-8	7.65	J	10.3	0.862	1
06949	Cadmium	7440-43-9	1.03	U	1.03	0.0780	1
01650	Calcium	7440-70-2	2,120		20.5	3.43	1
06951	Chromium	7440-47-3	21.6		3.08	0.164	1
06952	Cobalt	7440-48-4	5.67		1.03	0.102	1
06953	Copper	7440-50-8	9.78		2.05	0.298	1
01654	Iron	7439-89-6	21,600		41.1	3.72	1
06955	Lead	7439-92-1	8.23		3.08	0.513	1
01656	Lithium	7439-93-2	26.9		4.1	0.35	1
01657	Magnesium	7439-95-4	4,430		10.3	1.71	1
06958	Manganese	7439-96-5	268		1.03	0.0852	1
06960	Molybdenum	7439-98-7	0.467	J	2.05	0.174	1
06961	Nickel	7440-02-0	11.2		2.05	0.133	1
10145	Phosphorus	7723-14-0	212		10.3	2.97	1
01662	Potassium	7440-09-7	2,200		103	8.56	1
01667	Sodium	7440-23-5	90.7	J	103	17.1	1
06969	Tin	7440-31-5	3.36	J	10.3	0.226	1
06970	Titanium	7440-32-6	1,120		1.03	0.174	1
06971	Vanadium	7440-62-2	42.3		1.03	0.133	1
06972	Zinc	7440-66-6	46.0		4.11	0.205	1
10146	Zirconium	7440-67-7	2.75	J	5.13	0.862	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.155	J	0.411	0.103	2
06142	Silver	7440-22-4	0.0509	J	0.205	0.0267	2
06144	Strontium	7440-24-6	17.6		0.411	0.0698	2
06145	Thallium	7440-28-0	0.246		0.205	0.0308	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0159	J	0.0170	0.0102	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-569-SA6-TR-2.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471538
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 11:15 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56925 SDG#: PH189-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D	n.a.	6.17	0.0100	0.0100	1
	The pH was measured in water at 22 C.					
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	5.4	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: SL-569-SA6-TR-2.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471538
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 11:15 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56925 SDG#: PH189-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.02	U	1.02	0.0764	1
11031	12378-PeCDD	40321-76-4	5.12	U	5.12	0.0495	1
11031	123478-HxCDD	39227-28-6	5.12	U	5.12	0.0296	1
11031	123678-HxCDD	57653-85-7	0.0478	JBQ	5.12	0.0299	1
11031	123789-HxCDD	19408-74-3	0.0506	JB	5.12	0.0286	1
11031	1234678-HpCDD	35822-46-9	0.143	JB	5.12	0.0330	1
11031	OCDD	3268-87-9	1.19	JB	10.2	0.0357	1
11031	2378-TCDF	51207-31-9	1.02	U	1.02	0.0524	1
11031	12378-PeCDF	57117-41-6	0.0831	JBQ	5.12	0.0292	1
11031	23478-PeCDF	57117-31-4	0.0484	JBQ	5.12	0.0285	1
11031	123478-HxCDF	70648-26-9	0.0574	JBQ	5.12	0.0264	1
11031	123678-HxCDF	57117-44-9	0.0568	JB	5.12	0.0233	1
11031	123789-HxCDF	72918-21-9	0.0814	JBQ	5.12	0.0258	1
11031	234678-HxCDF	60851-34-5	0.0263	JBQ	5.12	0.0246	1
11031	1234678-HpCDF	67562-39-4	0.0497	JBQ	5.12	0.0120	1
11031	1234789-HpCDF	55673-89-7	0.0285	JBQ	5.12	0.0206	1
11031	OCDF	39001-02-0	0.193	JBQ	10.2	0.0724	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0125				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	63	25 - 164
13C12-12378-PeCDD	67	25 - 181
13C12-123478-HxCDD	71	32 - 141
13C12-123678-HxCDD	72	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	71	23 - 140
13C12-OCDD	57	17 - 157
13C12-2378-TCDF	61	24 - 169
13C12-12378-PeCDF	67	24 - 185
13C12-23478-PeCDF	61	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	69	26 - 123
13C12-234678-HxCDF	66	28 - 136
13C12-123789-HxCDF	73	29 - 147
13C12-1234678-HpCDF	83	28 - 143
13C12-1234789-HpCDF	54	26 - 138
13C12-OCDF	43	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-569-SA6-TR-2.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471538
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 11:15 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56925 SDG#: PH189-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-569-SA6-TR-2.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471538
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 11:15 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56925 SDG#: PH189-08

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14142SLF026	05/27/2014 11:00	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14142SLF026	05/23/2014 09:45	Katheryne V Sponheimer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147B16A	05/29/2014 06:00	Marie D Beamenderfer	21.66
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414134570	05/21/2014 16:02	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414134570	05/21/2014 15:50	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141430011A	05/26/2014 12:15	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141430011A	05/24/2014 04:15	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440030A	05/28/2014 03:18	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440031A	05/31/2014 01:32	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440031A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440030A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14148003	05/30/2014 23:32	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14148003	05/28/2014 10:10	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-569-SA6-TR-2.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471538
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 11:15 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56925 SDG#: PH189-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	141430637001	05/28/2014 10:05	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	141430637001B	05/28/2014 07:16	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141430637001A	05/28/2014 07:16	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141430637001A	05/28/2014 07:16	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141430637001A	05/28/2014 07:16	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141410638002	05/23/2014 09:50	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141430637001	05/27/2014 07:53	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141410638002	05/22/2014 12:50	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14141039401B	05/21/2014 22:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14147162401A	05/27/2014 17:27	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-569-SA6-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471539
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 10:58 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56905 SDG#: PH189-09*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	1.7	U	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.1	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.68	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.68	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.68	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.1	1
13099	PCB-1232	11141-16-5	17	U	17	4.1	1
13099	PCB-1242	53469-21-9	17	U	17	4.1	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	17	U	17	4.4	1
13099	PCB-1260	11096-82-5	17	U	17	3.9	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C30-C40)	n.a.	10	U	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.0	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-569-SA6-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471539
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 10:58 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56905 SDG#: PH189-09*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
13197	EFH C21-C30 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
	The reverse surrogate, capric acid, is present at <1%.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	11,200		41.0	7.39	1
06944	Antimony	7440-36-0	4.10	U	4.10	0.758	1
06935	Arsenic	7440-38-2	2.20	J	4.10	0.717	1
06946	Barium	7440-39-3	79.1		1.02	0.0338	1
06947	Beryllium	7440-41-7	0.474	J	1.02	0.0686	1
07914	Boron	7440-42-8	7.06	J	10.2	0.861	1
06949	Cadmium	7440-43-9	1.02	U	1.02	0.0779	1
01650	Calcium	7440-70-2	4,170		20.5	3.42	1
06951	Chromium	7440-47-3	17.0		3.07	0.164	1
06952	Cobalt	7440-48-4	5.08		1.02	0.101	1
06953	Copper	7440-50-8	10.7		2.05	0.297	1
01654	Iron	7439-89-6	19,600		41.0	3.71	1
06955	Lead	7439-92-1	7.36		3.07	0.512	1
01656	Lithium	7439-93-2	27.9		4.1	0.35	1
01657	Magnesium	7439-95-4	5,430		10.2	1.71	1
06958	Manganese	7439-96-5	295		1.02	0.0850	1
06960	Molybdenum	7439-98-7	2.05	U	2.05	0.174	1
06961	Nickel	7440-02-0	9.63		2.05	0.133	1
10145	Phosphorus	7723-14-0	413		10.2	2.96	1
01662	Potassium	7440-09-7	3,130		102	8.55	1
01667	Sodium	7440-23-5	89.4	J	102	17.1	1
06969	Tin	7440-31-5	3.22	J	10.2	0.225	1
06970	Titanium	7440-32-6	1,100		1.02	0.174	1
06971	Vanadium	7440-62-2	33.7		1.02	0.133	1
06972	Zinc	7440-66-6	57.2		4.10	0.205	1
10146	Zirconium	7440-67-7	1.89	J	5.12	0.861	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.410	U	0.410	0.102	2
06142	Silver	7440-22-4	0.205	U	0.205	0.0266	2
06144	Strontium	7440-24-6	14.0		0.410	0.0697	2
06145	Thallium	7440-28-0	0.196	J	0.205	0.0307	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0170	U	0.0170	0.0102	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.43		0.0100	0.0100	1
	The pH was measured in water at 22.1 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	

*=This limit was used in the evaluation of the final result

Sample Description: SL-569-SA6-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471539
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 10:58 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56905 SDG#: PH189-09*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	2.4	0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

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SSFL Phase 3 Subarea 6

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3201 Jermantown Road
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Fairfax VA 22030

56905 SDG#: PH189-09*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.01 U	1.01	0.0636	1
11031	12378-PeCDD	40321-76-4	0.0527 JBQ	5.06	0.0458	1
11031	123478-HxCDD	39227-28-6	0.0631 JQ	5.06	0.0386	1
11031	123678-HxCDD	57653-85-7	0.0884 JBQ	5.06	0.0391	1
11031	123789-HxCDD	19408-74-3	0.212 JBQ	5.06	0.0384	1
11031	1234678-HpCDD	35822-46-9	1.77 JB	5.06	0.0639	1
11031	OCDD	3268-87-9	28.6 B	10.1	0.0432	1
11031	2378-TCDF	51207-31-9	1.01 U	1.01	0.0600	1
11031	12378-PeCDF	57117-41-6	0.107 JBQ	5.06	0.0304	1
11031	23478-PeCDF	57117-31-4	0.0528 JBQ	5.06	0.0323	1
11031	123478-HxCDF	70648-26-9	0.102 JBQ	5.06	0.0318	1
11031	123678-HxCDF	57117-44-9	0.0557 JBQ	5.06	0.0265	1
11031	123789-HxCDF	72918-21-9	0.0756 JBQ	5.06	0.0354	1
11031	234678-HxCDF	60851-34-5	0.0336 JBQ	5.06	0.0304	1
11031	1234678-HpCDF	67562-39-4	0.144 JB	5.06	0.0122	1
11031	1234789-HpCDF	55673-89-7	5.06 U	5.06	0.0253	1
11031	OCDF	39001-02-0	0.510 JBQ	10.1	0.0837	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0277			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	66	25 - 164
13C12-12378-PeCDD	69	25 - 181
13C12-123478-HxCDD	75	32 - 141
13C12-123678-HxCDD	72	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	72	23 - 140
13C12-OCDD	63	17 - 157
13C12-2378-TCDF	58	24 - 169
13C12-12378-PeCDF	68	24 - 185
13C12-23478-PeCDF	57	21 - 178
13C12-123478-HxCDF	59	26 - 152
13C12-123678-HxCDF	69	26 - 123
13C12-234678-HxCDF	61	28 - 136
13C12-123789-HxCDF	60	29 - 147
13C12-1234678-HpCDF	91	28 - 143
13C12-1234789-HpCDF	47	26 - 138
13C12-OCDF	37	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-569-SA6-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471539
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 10:58 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56905 SDG#: PH189-09*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-569-SA6-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471539
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56905 SDG#: PH189-09*

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14142SLF026	05/27/2014 11:32	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14142SLF026	05/23/2014 09:45	Katheryne V Sponheimer	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141430011A	05/26/2014 12:34	Jessica L Miller	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141430011A	05/24/2014 04:15	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440030A	05/28/2014 04:01	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440031A	05/31/2014 01:53	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440031A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440030A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14148003	05/31/2014 07:18	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14148003	05/28/2014 10:10	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-569-SA6-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7471539
LL Group # 1475905
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/20/2014 10:58 by BC

Submitted: 05/21/2014 09:50
Reported: 06/03/2014 16:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56905 SDG#: PH189-09*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	141430637001	05/28/2014 10:16	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	141430637001B	05/28/2014 07:23	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141430637001A	05/28/2014 07:23	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141430637001A	05/28/2014 07:23	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141430637001A	05/28/2014 07:23	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141410638002	05/23/2014 09:52	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141430637001	05/27/2014 07:53	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141410638002	05/22/2014 12:50	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14141039401B	05/21/2014 22:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14147162401A	05/27/2014 17:27	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475905
Reported: 06/03/14 at 04:58 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14142SLF026	Sample number(s): 7471532-7471539									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	106		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	103		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	106		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	110		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	93		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	109		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	84		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	98		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	88		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	106		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	107		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	95		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	102		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	88		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	93		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	114		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	104		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	106		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	99		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	94		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	101		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	96		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	96		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	112		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	100		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	95		80-119		
Batch number: 14142A94A	Sample number(s): 7471531									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	109	111	80-133	2	30
Batch number: 14147B16A	Sample number(s): 7471533-7471536,7471538									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	88		67-120		
Batch number: 141430011A	Sample number(s): 7471532-7471539									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	87	87	36-106	0	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	100		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475905
Reported: 06/03/14 at 04:58 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1260	17	U	17.	3.9	ug/kg	108		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141440030A	Sample number(s): 7471532-7471539									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	90		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	91		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	92		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	85		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	77		60-115		
Batch number: 141440031A	Sample number(s): 7471532-7471539									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	85		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	85		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	84		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	81		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	68		60-115		
Batch number: 141410638002	Sample number(s): 7471532-7471539									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	95		85-120		
Batch number: 141430637001	Sample number(s): 7471532-7471539									
Aluminum	40.0	U	40.0	7.21	mg/kg	106		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	107		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	106		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	102		80-120		
Boron	10.0	U	10.0	0.840	mg/kg	100		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	104		80-120		
Calcium	7.84	J	20.0	3.34	mg/kg	102		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	103		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	105		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	106		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	104		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	103		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	106		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	100		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	103		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	103		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	108		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	105		80-120		
Potassium	100 U		100.	8.34	mg/kg	102		80-120		
Sodium	100 U		100.	16.7	mg/kg	103		80-120		
Tin	1.46	J	10.0	0.220	mg/kg	102		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	106		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	103		80-120		
Zinc	0.461	J	4.00	0.200	mg/kg	103		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	104		80-120		
Batch number: 141430637001A	Sample number(s): 7471532-7471539									
Silver	0.200	U	0.200	0.0260	mg/kg	106		80-120		
Strontium	0.400	U	0.400	0.0680	mg/kg	100		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	106		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475905
Reported: 06/03/14 at 04:58 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 141430637001B	Sample number(s): 7471532-7471539									
Selenium	0.400	U	0.400	0.100	mg/kg	106		80-120		
Batch number: 14141039401A	Sample number(s): 7471532-7471536									
15a pH by 9045D						100		95-105		
Batch number: 14141039401B	Sample number(s): 7471537-7471539									
15a pH by 9045D						100		95-105		
Batch number: 14147162401A	Sample number(s): 7471532-7471539									
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14148003	Sample number(s): 7471532-7471539									
2378-TCDD	1.00	U	1.00	0.0400	ng/kg	91		67-158		
12378-PeCDD	0.0674	J	5.00	0.0286	ng/kg	97		70-142		
123478-HxCDD	5.00	U	5.00	0.0192	ng/kg	98		70-164		
123678-HxCDD	0.0322	J	5.00	0.0199	ng/kg	94		76-134		
123789-HxCDD	0.0351	J	5.00	0.0195	ng/kg	93		64-162		
1234678-HpCDD	0.104	J	5.00	0.0213	ng/kg	92		70-140		
OCDD	0.662	J	10.0	0.0258	ng/kg	92		78-144		
2378-TCDF	1.00	U	1.00	0.0272	ng/kg	104		75-158		
2378-TCDF-Conf	1.00	U	1.00	0.0743	ng/kg	104		75-158		
12378-PeCDF	0.0961	J	5.00	0.0195	ng/kg	97		80-134		
23478-PeCDF	0.0685	J	5.00	0.0194	ng/kg	97		68-160		
123478-HxCDF	0.0887	J	5.00	0.0170	ng/kg	95		72-134		
123678-HxCDF	0.0451	J	5.00	0.0160	ng/kg	95		84-130		
123789-HxCDF	0.0531	J	5.00	0.0170	ng/kg	94		78-130		
234678-HxCDF	0.0468	J	5.00	0.0165	ng/kg	97		70-156		
1234678-HpCDF	0.0707	J	5.00	0.0102	ng/kg	92		82-122		
1234789-HpCDF	0.0368	J	5.00	0.0171	ng/kg	92		78-138		
OCDF	0.0875	J	10.0	0.0344	ng/kg	94		63-170		
TEQ WHO 2005 - EDLx0.0	0.0870				ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14142SLF026	Sample number(s): 7471532-7471539 UNSPK: P471505								
Acenaphthene	101	99	48-127	1	30				
Acenaphthylene	99	102	60-128	3	30				
Anthracene	99	103	52-126	5	30				
Benzo(a)anthracene	107	112	44-143	5	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475905
Reported: 06/03/14 at 04:58 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Benzo(a)pyrene	95	96	49-137	1	30				
Benzo(b)fluoranthene	106	102	26-142	4	30				
Benzo(e)pyrene	85	86	63-111	1	30				
Benzo(g,h,i)perylene	89	92	33-141	4	30				
Benzo(k)fluoranthene	92	94	49-144	3	30				
Butylbenzylphthalate	110	112	64-156	1	30				
Di-n-butylphthalate	114	109	52-147	4	30				
Chrysene	92	96	43-141	4	30				
Dibenz(a,h)anthracene	93	96	25-145	4	30				
Diethylphthalate	80	83	66-140	5	30				
Dimethylphthalate	87	89	70-123	3	30				
Bis(2-Ethylhexyl)phthalate	123	121	48-164	1	30				
Fluoranthene	94	106	38-153	11	30				
Fluorene	98	100	57-130	3	30				
Indeno(1,2,3-cd)pyrene	98	95	26-139	3	30				
1-Methylnaphthalene	92	92	59-139	1	30				
2-Methylnaphthalene	95	97	46-147	3	30				
Naphthalene	93	97	52-136	5	30				
N-Nitrosodimethylamine	89	87	39-134	1	30				
Di-n-octylphthalate	121	119	52-162	1	30				
Phenanthrene	93	101	50-137	8	30				
Pyrene	83	96	26-143	14	30				
Batch number: 14147B16A	Sample number(s): 7471533-7471536,7471538 UNSPK: P471505								
11a TPH by EPA 8015B GRO	76	79	69-123	1	30				
Batch number: 141430011A	Sample number(s): 7471532-7471539 UNSPK: P471505								
PCB-1016	96	84	41-135	12	50				
PCB-1260	102	88	40-134	14	50				
Batch number: 141440030A	Sample number(s): 7471532-7471539 UNSPK: P471505								
EFH (C12-C14)	86	88	49-123	1	20				
EFH (C15-C20)	112	106	49-123	6	20				
EFH (C21-C30)	91	42*	49-123	26*	20				
EFH (C30-C40)	130*	28*	49-123	38*	20				
EFH (C8-C11)	76	77	49-123	1	20				
Batch number: 141440031A	Sample number(s): 7471532-7471539 UNSPK: P471505								
EFH C12-C14 w/ SiGel	82	73	49-123	12	20				
EFH C15-C20 w/ SiGel	84	75	49-123	13	20				
EFH C21-C30 w/ SiGel	96	79	49-123	20	20				
EFH C30-C40 w/ SiGel	90	78	49-123	16	20				
EFH C8-C11 w/ SiGel	64	58	49-123	11	20				
Batch number: 141410638002	Sample number(s): 7471532-7471539 UNSPK: P471505 BKG: P471505								
3a Mercury 7471A	107	96	65-135	11	20	0.0109 J	0.0097 J	12 (1)	20
Batch number: 141430637001	Sample number(s): 7471532-7471539 UNSPK: P470316 BKG: P470316								
Aluminum	2456 (2)	3885 (2)	75-125	8	20	25,100	24,700	2	20
Antimony	41*	34*	75-125	20	20	3.92 U	3.96 U	0 (1)	20
Arsenic	105	95	75-125	10	20	2.52 J	2.75 J	9 (1)	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475905
Reported: 06/03/14 at 04:58 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Barium	93	100	75-125	3	20	106	104	2	20
Beryllium	100	103	75-125	1	20	0.865 J	0.830 J	4 (1)	20
Boron	99	100	75-125	1	20	10.9	11.3	3 (1)	20
Cadmium	80	74*	75-125	9	20	0.980 U	0.990 U	0 (1)	20
Calcium	11145 (2)	2442 (2)	75-125	81*	20	15,600	35,000	77*	20
Chromium	100	119	75-125	6	20	30.6	29.8	3	20
Cobalt	88	90	75-125	0	20	6.06	7.75	24*	20
Copper	104	110	75-125	3	20	16.5	16.1	2	20
Iron	-1341 (2)	1088 (2)	75-125	9	20	27,600	26,500	4	20
Lead	72*	81	75-125	5	20	11.4	11.9	5 (1)	20
Lithium	103	106	75-125	1	20	22.6	22.0	3	20
Magnesium	13 (2)	323 (2)	75-125	9	20	6,130	5,900	4	20
Manganese	95 (2)	112 (2)	75-125	2	20	226	305	30*	20
Molybdenum	86	87	75-125	2	20	1.96 U	1.98 U	0 (1)	20
Nickel	86	90	75-125	2	20	14.8	15.2	3	20
Phosphorus	104	99	75-125	2	20	208	207	0	20
Potassium	126*	164*	75-125	9	20	2,370	2,350	1	20
Sodium	99	100	75-125	1	20	141	140	1 (1)	20
Tin	82	82	75-125	2	20	2.89 J	2.74 J	6 (1)	20
Titanium	445 (2)	622 (2)	75-125	12	20	885	874	1	20
Vanadium	109	125	75-125	6	20	53.3	52.5	2	20
Zinc	87	96	75-125	4	20	55.7	53.8	3	20
Zirconium	96	97	75-125	1	20	5.22	5.69	8 (1)	20
Batch number: 141430637001A	Sample number(s): 7471532-7471539 UNSPK: P470316 BKG: P470316								
Silver	100	105	75-125	2	20	0.0429 J	0.0562 J	27* (1)	20
Strontium	122 (2)	153 (2)	75-125	4	20	41.3	45.1	9	20
Thallium	99	109	75-125	4	20	0.274	0.293	7 (1)	20
Batch number: 141430637001B	Sample number(s): 7471532-7471539 UNSPK: P470316 BKG: P470316								
Selenium	94	96	75-125	1	20	0.392 U	0.396 U	0 (1)	20
Batch number: 14141039401A	Sample number(s): 7471532-7471536 BKG: P471505								
15a pH by 9045D						7.00	6.96	1	3
Batch number: 14141039401B	Sample number(s): 7471537-7471539 BKG: 7471539								
15a pH by 9045D						8.43	8.40	0	3
Batch number: 14147162401A	Sample number(s): 7471532-7471539 BKG: 7471535								
14a Moisture Content by 160.3						7.2	7.3	1	20
Batch number: 14148003	Sample number(s): 7471532-7471539 UNSPK: P471505								
2378-TCDD	93	93	40-135	0	20				
12378-PeCDD	94	95	40-135	1	20				
123478-HxCDD	97	97	40-135	0	20				
123678-HxCDD	94	93	40-135	1	20				
123789-HxCDD	95	94	40-135	1	20				
1234678-HpCDD	94	93	40-135	1	20				
OCDD	102	92	40-135	10	20				
2378-TCDF	100	99	40-135	1	20				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475905
Reported: 06/03/14 at 04:58 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
2378-TCDF-Conf	100	99	40-135	1	20				
12378-PeCDF	96	99	40-135	3	20				
23478-PeCDF	98	98	40-135	1	20				
123478-HxCDF	96	96	40-135	0	20				
123678-HxCDF	95	94	40-135	1	20				
123789-HxCDF	94	96	40-135	2	20				
234678-HxCDF	98	97	40-135	1	20				
1234678-HpCDF	93	93	40-135	0	20				
1234789-HpCDF	94	93	40-135	1	20				
OCDF	93	93	40-135	1	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14142SLF026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7471532	86	95	80
7471533	87	97	81
7471534	89	99	82
7471535	91	102	82
7471536	88	94	83
7471537	90	101	82
7471538	88	100	83
7471539	91	103	83
Blank	92	106	85
LCS	96	110	88
MS	90	100	83
MSD	89	99	82
Limits:	59-115	61-118	70-127

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14142A94A

	Trifluorotoluene-F
7471531	86
Blank	86
LCS	97
LCSD	94
Limits:	63-135

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 14147B16A

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475905
Reported: 06/03/14 at 04:58 PM

Surrogate Quality Control

	Trifluorotoluene-F
7471533	85
7471534	92
7471535	87
7471536	90
7471538	81
Blank	98
LCS	101
MS	90
MSD	83
Limits:	50-142

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141430011A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7471532	92	99
7471533	98	108
7471534	102	110
7471535	99	105
7471536	96	101
7471537	95	103
7471538	100	106
7471539	93	102
Blank	104	108
LCS	104	117
LCSD	102	112
MS	104	114
MSD	95	96
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141440030A

	Chlorobenzene	Orthoterphenyl
7471532	69	81
7471533	72	85
7471534	71	83
7471535	70	89
7471536	73	89
7471537	75	93
7471538	73	87
7471539	76	90
Blank	79	91
LCS	80	94
MS	75	85
MSD	77	88
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141440031A

	Chlorobenzene	Orthoterphenyl

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475905
Reported: 06/03/14 at 04:58 PM

Surrogate Quality Control

7471532	65	68
7471533	63	74
7471534	55	64*
7471535	56	70
7471536	57	67
7471537	60	67
7471538	58	67
7471539	62	73
Blank	79	90
LCS	77	87
MS	73	84
MSD	65	75
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 14148003

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7471532	74	71	78	80	78	74
7471533	68	74	76	77	78	76
7471534	73	75	78	78	77	76
7471535	71	73	77	77	76	71
7471536	68	68	74	72	73	69
7471537	70	74	80	78	81	77
7471538	63	67	71	72	73	71
7471539	66	69	75	72	73	72
Blank	81	87	91	92	92	89
MS	82	83	88	85	86	84
MSD	70	72	79	79	79	74
OPR	66	73	80	79	80	76
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7471532	59		74	64	68	75
7471533	63	64	74	64	66	74
7471534	62	69	75	67	67	74
7471535	60	66	73	67	67	75
7471536	59	64	70	62	65	71
7471537	63	65	76	66	70	77
7471538	57	61	67	61	64	69
7471539	63	58	68	57	59	69
Blank	76	76	85	80	81	86
MS	72	77	82	75	76	82
MSD	63	66	71	66	69	74
OPR	69	57	69	63	63	71
Limits:	17-157	24-169	24-185	21-178	26-152	26-123

	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-2378-TCDF-Conf
7471532	71	62	86	54	42	70
7471533	69	68	90	55	44	

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**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1475905
Reported: 06/03/14 at 04:58 PM

Surrogate Quality Control

7471534	71	70	90	55	44	
7471535	69	62	85	53	43	
7471536	66	70	82	52	43	
7471537	72	76	91	57	46	
7471538	66	73	83	54	43	
7471539	61	60	91	47	37	
Blank	83	87	100	69	58	79
MS	78	83	91	65	56	77
MSD	71	71	81	59	49	66
OPR	66	64	87	54	46	57
Limits:	28-136	29-147	28-143	26-138	17-157	24-169

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/20/2014
CarrierName: FedEx
AirbillNo: 770044397602

A-13013
G-1475905
S-7471531-39

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140520-09
Cooler #: 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Methyl Mercury 1630	Organotin	Calc Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
TB3-052014	5/20/14 08:00	WQ	HCl	6 - 40 mL Vial	0																		X	X																For all EFH, silica gel
SL-611-SA8-TR-0.5	5/20/14 09:10	SO	None	2 - 16 oz glass	0	X	X					X		X	X			X								X														clean up required on half
SL-611-SA8-TR-5.0	5/20/14 09:15	SO	None	2 - 16 oz glass	0	X	X					X		X	X			X								X														the extract. Analyze both
SL-611-SA8-TR-5.0	5/20/14 09:15	SO	None	2 - Encore	0																				X															extracts for EFH.
SL-611-SA8-TR-10.5	5/20/14 09:20	SO	None	2 - 16 oz glass	0	X	X					X		X	X			X								X														
SL-611-SA8-TR-10.5	5/20/14 09:20	SO	None	2 - Encore	0																				X															
SL-570-SA6-TR-6.0	5/20/14 13:43	SO	None	2 - 16 oz glass	0	X	X					X		X	X			X								X														
SL-570-SA6-TR-6.0	5/20/14 13:43	SO	None	2 - Encore	0																				X															
SL-570-SA6-TR-2.0	5/20/14 13:00	SO	None	2 - 16 oz glass	0	X	X					X		X	X			X								X														
SL-570-SA6-TR-2.0	5/20/14 13:00	SO	None	2 - Encore	0																				X															
SL-570-SA6-TR-0.5	5/20/14 12:10	SO	None	2 - 16 oz glass	0	X	X					X		X	X			X								X														
SL-569-SA6-TR-2.5	5/20/14 11:15	SO	None	2 - 16 oz glass	0	X	X					X		X	X			X								X														
SL-569-SA6-TR-2.5	5/20/14 11:15	SO	None	2 - Encore	0																				X															
SL-569-SA6-TR-0.5	5/20/14 10:58	SO	None	2 - 16 oz glass	0	X	X					X		X	X			X								X														

Special Instructions:

Sampler: Ben Cranenoso

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Stop Mypdos	05/20/2014	1600									
									Ben Cranenoso	5.21.14	950

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Sample Administration Receipt Documentation Log

Doc Log ID: 15127

Group Number(s): 1475900S

Client: CDM

SSFL

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/21/2014 9:50
Number of Packages:	2	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	9
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	Yes		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Brandy Barclay (2299) at 11:13 on 05/21/2014

Samples Chilled Details: SSFL

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT146	1.3	DT	Wet	Y	Bagged	N	N
2	DT146	1.2	DT	Wet	Y	Bagged	N	N

Container Quantity Discrepancy Details: SSFL

Sample ID on COC	Container Qty. Received	Container Qty. on COC	Comments
FDG2-SL-874-SA5A-0.0-0.5	3	2	rec 1 4oz jar & 2 sleeves

General Comments: TB1 rec 3 vials

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

May 29, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/22/2014
Group Number: 1476367
SDG: PH190
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB2-052114 Water	7473394
SVL-512-SA5D-SB-5.0-6.0 Soil	7473395
SVL-515-SA5D-SB-5.0-6.0 Soil	7473396
EB-052114 Water	7473397

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: TB2-052114 Water
SSFL Phase 3 Subarea 5D

LL Sample # WW 7473394
LL Group # 1476367
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 08:00

Submitted: 05/22/2014 09:25
Reported: 05/29/2014 14:14

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB25D SDG#: PH190-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	5	U	5	0.5	1
10335	Benzene	71-43-2	5	U	5	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	5	U	5	0.5	1
10335	Bromoform	75-25-2	5	U	5	0.5	1
10335	Bromomethane	74-83-9	5	U	5	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	5	U	5	0.5	1
10335	Chlorobenzene	108-90-7	5	U	5	0.5	1
10335	Chloroethane	75-00-3	5	U	5	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	5	U	5	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	5	U	5	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	5	U	5	0.5	1
10335	1,2-Dibromoethane	106-93-4	5	U	5	0.5	1
10335	Dibromomethane	74-95-3	5	U	5	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	5	U	5	0.5	1
10335	1,1-Dichloroethane	75-34-3	5	U	5	0.5	1
10335	1,2-Dichloroethane	107-06-2	5	U	5	0.5	1
10335	1,1-Dichloroethene	75-35-4	5	U	5	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.5	1
10335	1,2-Dichloropropane	78-87-5	5	U	5	0.5	1
10335	1,3-Dichloropropane	142-28-9	5	U	5	0.5	1
10335	2,2-Dichloropropane	594-20-7	5	U	5	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.5	1
10335	Ethyl t-butyl ether	637-92-3	5	U	5	0.5	1
10335	Ethylbenzene	100-41-4	5	U	5	0.5	1
10335	Freon 113	76-13-1	5	U	5	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: TB2-052114 Water
SSFL Phase 3 Subarea 5D

LL Sample # WW 7473394
LL Group # 1476367
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 08:00

Submitted: 05/22/2014 09:25
Reported: 05/29/2014 14:14

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB25D SDG#: PH190-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	5	U	5	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	5	U	5	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	5	U	5	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.5	1
10335	Tetrachloroethene	127-18-4	5	U	5	0.5	1
10335	Toluene	108-88-3	5	U	5	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	5	U	5	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	5	U	5	0.5	1
10335	Trichloroethene	79-01-6	5	U	5	0.5	1
10335	Trichlorofluoromethane	75-69-4	5	U	5	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	5	U	5	0.5	1
10335	m+p-Xylene	179601-23-1	5	U	5	0.5	1
10335	o-Xylene	95-47-6	5	U	5	0.5	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: chlorotrifluoroethene.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141471AA	05/27/2014 13:08	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141471AA	05/27/2014 13:08	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-512-SA5D-SB-5.0-6.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473395
LL Group # 1476367
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 13:40 by VV

Submitted: 05/22/2014 09:25
Reported: 05/29/2014 14:14

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51250 SDG#: PH190-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	21	U	21	7	0.91
10237	Acrolein	107-02-8	110	U	110	21	0.91
10237	Acrylonitrile	107-13-1	21	U	21	4	0.91
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.91
10237	Benzene	71-43-2	5	U	5	0.5	0.91
10237	Bromobenzene	108-86-1	5	U	5	1	0.91
10237	Bromochloromethane	74-97-5	5	U	5	1	0.91
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.91
10237	Bromoform	75-25-2	5	U	5	1	0.91
10237	Bromomethane	74-83-9	5	U	5	2	0.91
10237	2-Butanone	78-93-3	11	U	11	4	0.91
10237	t-Butyl alcohol	75-65-0	53	U	53	21	0.91
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.91
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.91
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.91
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.91
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.91
10237	Chlorobenzene	108-90-7	5	U	5	1	0.91
10237	Chloroethane	75-00-3	5	U	5	2	0.91
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	0.91
10237	Chloroform	67-66-3	5	U	5	1	0.91
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.91
10237	Chloromethane	74-87-3	5	U	5	2	0.91
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.91
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.91
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.91
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.91
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.91
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.91
10237	Dibromomethane	74-95-3	5	U	5	1	0.91
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.91
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.91
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.91
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.91
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.91
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.91
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.91
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.91
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.91
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.91
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.91
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.91
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.91
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.91
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.91
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.91
10237	Ethylbenzene	100-41-4	5	U	5	1	0.91
10237	Freon 113	76-13-1	5	U	5	2	0.91
10237	Freon 133a	75-88-7	5	U	5	2	0.91
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.91
10237	2-Hexanone	591-78-6	11	U	11	3	0.91

*=This limit was used in the evaluation of the final result

Sample Description: SVL-512-SA5D-SB-5.0-6.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473395
LL Group # 1476367
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 13:40 by VV

Submitted: 05/22/2014 09:25
Reported: 05/29/2014 14:14

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51250 SDG#: PH190-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.91
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.91
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.91
10237	Methyl Iodide	74-88-4	5	U	5	3	0.91
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.91
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	0.91
10237	Methylene Chloride	75-09-2	5	U	5	2	0.91
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.91
10237	Styrene	100-42-5	5	U	5	1	0.91
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.91
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.91
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.91
10237	Toluene	108-88-3	5	U	5	1	0.91
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.91
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.91
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.91
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.91
10237	Trichloroethene	79-01-6	5	U	5	1	0.91
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.91
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.91
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.91
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.91
10237	Vinyl Acetate	108-05-4	11	U	11	2	0.91
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.91
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.91
10237	o-Xylene	95-47-6	5	U	5	1	0.91
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	13.1		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141491AA	05/29/2014 06:20	Stephanie A Selis	0.91
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201414234582	05/22/2014 15:20	Lisa J Cooke	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-512-SA5D-SB-5.0-6.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473395
LL Group # 1476367
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 13:40 by VV

Submitted: 05/22/2014 09:25
Reported: 05/29/2014 14:14

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51250 SDG#: PH190-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201414234582	05/22/2014 15:20	Lisa J Cooke	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201414234582	05/22/2014 15:09	Lisa J Cooke	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14147162401B	05/27/2014 17:27	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-515-SA5D-SB-5.0-6.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473396
LL Group # 1476367
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 15:10 by VV

Submitted: 05/22/2014 09:25
Reported: 05/29/2014 14:14

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51550 SDG#: PH190-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	23	U	23	8	0.99
10237	Acrolein	107-02-8	110	U	110	23	0.99
10237	Acrylonitrile	107-13-1	23	U	23	5	0.99
10237	t-Amyl methyl ether	994-05-8	6	U	6	1	0.99
10237	Benzene	71-43-2	6	U	6	0.6	0.99
10237	Bromobenzene	108-86-1	6	U	6	1	0.99
10237	Bromochloromethane	74-97-5	6	U	6	1	0.99
10237	Bromodichloromethane	75-27-4	6	U	6	1	0.99
10237	Bromoform	75-25-2	6	U	6	1	0.99
10237	Bromomethane	74-83-9	6	U	6	2	0.99
10237	2-Butanone	78-93-3	11	U	11	5	0.99
10237	t-Butyl alcohol	75-65-0	57	U	57	23	0.99
10237	n-Butylbenzene	104-51-8	6	U	6	1	0.99
10237	sec-Butylbenzene	135-98-8	6	U	6	1	0.99
10237	tert-Butylbenzene	98-06-6	6	U	6	1	0.99
10237	Carbon Disulfide	75-15-0	6	U	6	1	0.99
10237	Carbon Tetrachloride	56-23-5	6	U	6	1	0.99
10237	Chlorobenzene	108-90-7	6	U	6	1	0.99
10237	Chloroethane	75-00-3	6	U	6	2	0.99
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	0.99
10237	Chloroform	67-66-3	6	U	6	1	0.99
10237	1-Chlorohexane	544-10-5	6	U	6	1	0.99
10237	Chloromethane	74-87-3	6	U	6	2	0.99
10237	2-Chlorotoluene	95-49-8	6	U	6	1	0.99
10237	4-Chlorotoluene	106-43-4	6	U	6	1	0.99
10237	Chlorotrifluoroethene	79-38-9	6	U	6	2	0.99
10237	1,2-Dibromo-3-chloropropane	96-12-8	6	U	6	2	0.99
10237	Dibromochloromethane	124-48-1	6	U	6	1	0.99
10237	1,2-Dibromoethane	106-93-4	6	U	6	1	0.99
10237	Dibromomethane	74-95-3	6	U	6	1	0.99
10237	1,2-Dichlorobenzene	95-50-1	6	U	6	1	0.99
10237	1,3-Dichlorobenzene	541-73-1	6	U	6	1	0.99
10237	1,4-Dichlorobenzene	106-46-7	6	U	6	1	0.99
10237	Dichlorodifluoromethane	75-71-8	6	U	6	2	0.99
10237	1,1-Dichloroethane	75-34-3	6	U	6	1	0.99
10237	1,2-Dichloroethane	107-06-2	6	U	6	1	0.99
10237	1,1-Dichloroethene	75-35-4	6	U	6	1	0.99
10237	cis-1,2-Dichloroethene	156-59-2	6	U	6	1	0.99
10237	trans-1,2-Dichloroethene	156-60-5	6	U	6	1	0.99
10237	1,2-Dichloropropane	78-87-5	6	U	6	1	0.99
10237	1,3-Dichloropropane	142-28-9	6	U	6	1	0.99
10237	2,2-Dichloropropane	594-20-7	6	U	6	1	0.99
10237	1,1-Dichloropropene	563-58-6	6	U	6	1	0.99
10237	cis-1,3-Dichloropropene	10061-01-5	6	U	6	1	0.99
10237	trans-1,3-Dichloropropene	10061-02-6	6	U	6	1	0.99
10237	Ethyl t-butyl ether	637-92-3	6	U	6	1	0.99
10237	Ethylbenzene	100-41-4	6	U	6	1	0.99
10237	Freon 113	76-13-1	6	U	6	2	0.99
10237	Freon 133a	75-88-7	6	U	6	2	0.99
10237	Hexachlorobutadiene	87-68-3	6	U	6	2	0.99
10237	2-Hexanone	591-78-6	11	U	11	3	0.99

*=This limit was used in the evaluation of the final result

Sample Description: SVL-515-SA5D-SB-5.0-6.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473396
LL Group # 1476367
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 15:10 by VV

Submitted: 05/22/2014 09:25
Reported: 05/29/2014 14:14

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51550 SDG#: PH190-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	6	U	6	1	0.99
10237	Isopropylbenzene	98-82-8	6	U	6	1	0.99
10237	p-Isopropyltoluene	99-87-6	6	U	6	1	0.99
10237	Methyl Iodide	74-88-4	6	U	6	3	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	6	U	6	0.6	0.99
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	0.99
10237	Methylene Chloride	75-09-2	6	U	6	2	0.99
10237	n-Propylbenzene	103-65-1	6	U	6	1	0.99
10237	Styrene	100-42-5	6	U	6	1	0.99
10237	1,1,1,2-Tetrachloroethane	630-20-6	6	U	6	1	0.99
10237	1,1,2,2-Tetrachloroethane	79-34-5	6	U	6	1	0.99
10237	Tetrachloroethene	127-18-4	6	U	6	1	0.99
10237	Toluene	108-88-3	6	U	6	1	0.99
10237	1,2,3-Trichlorobenzene	87-61-6	6	U	6	1	0.99
10237	1,2,4-Trichlorobenzene	120-82-1	6	U	6	1	0.99
10237	1,1,1-Trichloroethane	71-55-6	6	U	6	1	0.99
10237	1,1,2-Trichloroethane	79-00-5	6	U	6	1	0.99
10237	Trichloroethene	79-01-6	6	U	6	1	0.99
10237	Trichlorofluoromethane	75-69-4	6	U	6	2	0.99
10237	1,2,3-Trichloropropane	96-18-4	6	U	6	1	0.99
10237	1,2,4-Trimethylbenzene	95-63-6	6	U	6	1	0.99
10237	1,3,5-Trimethylbenzene	108-67-8	6	U	6	1	0.99
10237	Vinyl Acetate	108-05-4	11	U	11	2	0.99
10237	Vinyl Chloride	75-01-4	6	U	6	1	0.99
10237	m+p-Xylene	179601-23-1	6	U	6	1	0.99
10237	o-Xylene	95-47-6	6	U	6	1	0.99
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	12.9		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141491AA	05/29/2014 06:42	Stephanie A Selis	0.99
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201414234582	05/22/2014 15:20	Lisa J Cooke	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-515-SA5D-SB-5.0-6.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473396
LL Group # 1476367
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 15:10 by VV

Submitted: 05/22/2014 09:25
Reported: 05/29/2014 14:14

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51550 SDG#: PH190-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201414234582	05/22/2014 15:20	Lisa J Cooke	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201414234582	05/22/2014 15:08	Lisa J Cooke	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14147162401B	05/27/2014 17:27	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-052114 Water
SSFL Phase 3 Subarea 5D

LL Sample # WW 7473397
LL Group # 1476367
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 14:10 by VV

Submitted: 05/22/2014 09:25
Reported: 05/29/2014 14:14

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB521 SDG#: PH190-04EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	5	U	5	0.5	1
10335	Benzene	71-43-2	5	U	5	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	5	U	5	0.5	1
10335	Bromoform	75-25-2	5	U	5	0.5	1
10335	Bromomethane	74-83-9	5	U	5	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	5	U	5	0.5	1
10335	Chlorobenzene	108-90-7	5	U	5	0.5	1
10335	Chloroethane	75-00-3	5	U	5	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	5	U	5	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	5	U	5	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	5	U	5	0.5	1
10335	1,2-Dibromoethane	106-93-4	5	U	5	0.5	1
10335	Dibromomethane	74-95-3	5	U	5	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	5	U	5	0.5	1
10335	1,1-Dichloroethane	75-34-3	5	U	5	0.5	1
10335	1,2-Dichloroethane	107-06-2	5	U	5	0.5	1
10335	1,1-Dichloroethene	75-35-4	5	U	5	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.5	1
10335	1,2-Dichloropropane	78-87-5	5	U	5	0.5	1
10335	1,3-Dichloropropane	142-28-9	5	U	5	0.5	1
10335	2,2-Dichloropropane	594-20-7	5	U	5	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.5	1
10335	Ethyl t-butyl ether	637-92-3	5	U	5	0.5	1
10335	Ethylbenzene	100-41-4	5	U	5	0.5	1
10335	Freon 113	76-13-1	5	U	5	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-052114 Water
SSFL Phase 3 Subarea 5D

LL Sample # WW 7473397
LL Group # 1476367
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 14:10 by VV

Submitted: 05/22/2014 09:25
Reported: 05/29/2014 14:14

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB521 SDG#: PH190-04EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	5	U	5	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	5	U	5	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	5	U	5	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.5	1
10335	Tetrachloroethene	127-18-4	5	U	5	0.5	1
10335	Toluene	108-88-3	5	U	5	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	5	U	5	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	5	U	5	0.5	1
10335	Trichloroethene	79-01-6	5	U	5	0.5	1
10335	Trichlorofluoromethane	75-69-4	5	U	5	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	5	U	5	0.5	1
10335	m+p-Xylene	179601-23-1	5	U	5	0.5	1
10335	o-Xylene	95-47-6	5	U	5	0.5	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: chlorotrifluoroethene.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141471AA	05/27/2014 13:29	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141471AA	05/27/2014 13:29	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476367
Reported: 05/29/14 at 02:14 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B141491AA	Sample number(s): 7473395-7473396									
Acetone	20	U	20.	7	ug/kg	108	112	41-149	3	30
Acrolein	100 U		100.	20	ug/kg	92	88	50-137	5	30
Acrylonitrile	20	U	20.	4	ug/kg	91	88	58-123	3	30
t-Amyl methyl ether	5	U	5.	1	ug/kg	86	88	63-130	2	30
Benzene	5	U	5.	0.5	ug/kg	96	93	80-120	3	30
Bromobenzene	5	U	5.	1	ug/kg	96	99	78-120	3	30
Bromochloromethane	5	U	5.	1	ug/kg	120	117	75-129	2	30
Bromodichloromethane	5	U	5.	1	ug/kg	96	95	75-120	1	30
Bromoform	5	U	5.	1	ug/kg	102	96	70-126	6	30
Bromomethane	5	U	5.	2	ug/kg	109	108	32-162	1	30
2-Butanone	10	U	10.	4	ug/kg	98	99	47-136	1	30
t-Butyl alcohol	50	U	50.	20	ug/kg	93	99	66-133	6	30
n-Butylbenzene	5	U	5.	1	ug/kg	95	93	72-120	2	30
sec-Butylbenzene	5	U	5.	1	ug/kg	97	93	69-120	4	30
tert-Butylbenzene	5	U	5.	1	ug/kg	94	95	75-120	1	30
Carbon Disulfide	5	U	5.	1	ug/kg	73	71	63-128	3	30
Carbon Tetrachloride	5	U	5.	1	ug/kg	98	96	69-130	2	30
Chlorobenzene	5	U	5.	1	ug/kg	100	95	80-120	5	30
Chloroethane	5	U	5.	2	ug/kg	102	101	17-171	1	30
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/kg	87	90	52-134	3	30
Chloroform	5	U	5.	1	ug/kg	108	106	80-120	2	30
1-Chlorohexane	5	U	5.	1	ug/kg	91	85	70-130	6	30
Chloromethane	5	U	5.	2	ug/kg	89	85	56-120	4	30
2-Chlorotoluene	5	U	5.	1	ug/kg	93	93	78-120	0	30
4-Chlorotoluene	5	U	5.	1	ug/kg	94	96	79-120	2	30
Chlorotrifluoroethene	5	U	5.	2	ug/kg	95	89	22-131	6	30
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/kg	79	90	50-132	13	30
Dibromochloromethane	5	U	5.	1	ug/kg	99	95	77-120	4	30
1,2-Dibromoethane	5	U	5.	1	ug/kg	98	97	80-120	2	30
Dibromomethane	5	U	5.	1	ug/kg	101	99	75-120	2	30
1,2-Dichlorobenzene	5	U	5.	1	ug/kg	99	98	80-120	1	30
1,3-Dichlorobenzene	5	U	5.	1	ug/kg	93	98	80-120	5	30
1,4-Dichlorobenzene	5	U	5.	1	ug/kg	93	102	80-120	10	30
Dichlorodifluoromethane	5	U	5.	2	ug/kg	74	71	26-137	5	30
1,1-Dichloroethane	5	U	5.	1	ug/kg	99	96	71-122	2	30
1,2-Dichloroethane	5	U	5.	1	ug/kg	110	108	66-136	1	30
1,1-Dichloroethene	5	U	5.	1	ug/kg	103	100	73-129	3	30
cis-1,2-Dichloroethene	5	U	5.	1	ug/kg	104	100	80-120	4	30
trans-1,2-Dichloroethene	5	U	5.	1	ug/kg	106	103	79-120	3	30
1,2-Dichloropropane	5	U	5.	1	ug/kg	96	97	77-120	0	30
1,3-Dichloropropane	5	U	5.	1	ug/kg	93	92	73-120	1	30
2,2-Dichloropropane	5	U	5.	1	ug/kg	90	88	72-123	2	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476367
Reported: 05/29/14 at 02:14 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/kg	100	96	77-120	4	30
cis-1,3-Dichloropropene	5	U	5.	1	ug/kg	92	92	74-120	1	30
trans-1,3-Dichloropropene	5	U	5.	1	ug/kg	88	86	69-120	2	30
Ethyl t-butyl ether	5	U	5.	1	ug/kg	88	89	59-134	1	30
Ethylbenzene	5	U	5.	1	ug/kg	98	94	80-120	4	30
Freon 113	5	U	5.	2	ug/kg	74	71	64-137	3	30
Freon 133a	5	U	5.	2	ug/kg	118	113	78-120	3	30
Hexachlorobutadiene	5	U	5.	2	ug/kg	105	105	46-130	0	30
2-Hexanone	10	U	10.	3	ug/kg	86	85	40-129	0	30
di-Isopropyl ether	5	U	5.	1	ug/kg	92	92	68-128	0	30
Isopropylbenzene	5	U	5.	1	ug/kg	101	97	76-120	4	30
p-Isopropyltoluene	5	U	5.	1	ug/kg	89	88	69-120	2	30
Methyl Iodide	5	U	5.	3	ug/kg	102	99	72-130	3	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/kg	93	91	69-126	2	30
4-Methyl-2-pentanone	10	U	10.	3	ug/kg	91	92	43-133	1	30
Methylene Chloride	5	U	5.	2	ug/kg	104	103	80-124	1	30
n-Propylbenzene	5	U	5.	1	ug/kg	95	96	77-120	1	30
Styrene	5	U	5.	1	ug/kg	101	96	76-120	4	30
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/kg	98	95	80-120	3	30
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/kg	86	93	71-123	8	30
Tetrachloroethene	5	U	5.	1	ug/kg	106	103	78-120	3	30
Toluene	5	U	5.	1	ug/kg	94	89	80-120	5	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/kg	105	100	64-120	5	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/kg	97	99	68-120	3	30
1,1,1-Trichloroethane	5	U	5.	1	ug/kg	95	93	63-135	2	30
1,1,2-Trichloroethane	5	U	5.	1	ug/kg	98	100	80-120	1	30
Trichloroethene	5	U	5.	1	ug/kg	102	101	80-120	1	30
Trichlorofluoromethane	5	U	5.	2	ug/kg	91	86	58-133	5	30
1,2,3-Trichloropropane	5	U	5.	1	ug/kg	94	100	71-123	6	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/kg	95	93	79-120	2	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/kg	94	95	78-120	2	30
Vinyl Acetate	10	U	10.	2	ug/kg	74	70	40-127	6	30
Vinyl Chloride	5	U	5.	1	ug/kg	93	92	59-120	1	30
m+p-Xylene	5	U	5.	1	ug/kg	99	97	80-120	2	30
o-Xylene	5	U	5.	1	ug/kg	97	94	80-120	3	30
Batch number: Y141471AA	Sample number(s): 7473394,7473397									
Acetone	20	U	20.	6	ug/l	78	84	43-149	7	30
Acrolein	100 U		100.	40	ug/l	94	89	52-129	4	30
Acrylonitrile	20	U	20.	4	ug/l	77	83	62-120	7	30
t-Amyl methyl ether	5	U	5.	0.5	ug/l	98	99	75-120	1	30
Benzene	5	U	5.	0.5	ug/l	104	105	78-120	1	30
Bromobenzene	5	U	5.	1	ug/l	103	103	80-120	0	30
Bromochloromethane	5	U	5.	1	ug/l	102	103	80-121	0	30
Bromodichloromethane	5	U	5.	0.5	ug/l	99	99	73-120	0	30
Bromoform	5	U	5.	0.5	ug/l	86	85	61-120	1	30
Bromomethane	5	U	5.	0.5	ug/l	104	105	58-120	1	30
2-Butanone	10	U	10.	3	ug/l	72	79	54-133	9	30
t-Butyl alcohol	50	U	50.	5	ug/l	97	103	75-120	7	30
n-Butylbenzene	5	U	5.	1	ug/l	100	100	68-120	0	30
sec-Butylbenzene	5	U	5.	1	ug/l	102	104	80-120	2	30
tert-Butylbenzene	5	U	5.	1	ug/l	100	103	73-120	3	30
Carbon Disulfide	5	U	5.	1	ug/l	69	68	58-126	2	30
Carbon Tetrachloride	5	U	5.	0.5	ug/l	107	109	74-130	2	30
Chlorobenzene	5	U	5.	0.5	ug/l	104	103	80-120	1	30

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476367
Reported: 05/29/14 at 02:14 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroethane	5 U	5.	0.5	ug/l	89	89	56-120	1	30
2-Chloroethyl Vinyl Ether	10 U	10.	2	ug/l	102	103	54-126	1	30
Chloroform	5 U	5.	0.5	ug/l	106	107	80-122	1	30
1-Chlorohexane	5 U	5.	1	ug/l	104	105	80-120	1	30
Chloromethane	5 U	5.	0.5	ug/l	118	120	63-120	2	30
2-Chlorotoluene	5 U	5.	1	ug/l	100	101	80-120	1	30
4-Chlorotoluene	5 U	5.	1	ug/l	100	101	80-120	1	30
Chlorotrifluoroethene	5 U	5.	2	ug/l	46*	48	47-120	5	30
1,2-Dibromo-3-chloropropane	5 U	5.	2	ug/l	75	83	56-120	10	30
Dibromochloromethane	5 U	5.	0.5	ug/l	101	98	72-120	3	30
1,2-Dibromoethane	5 U	5.	0.5	ug/l	100	101	76-120	1	30
Dibromomethane	5 U	5.	0.5	ug/l	98	99	80-120	1	30
1,2-Dichlorobenzene	5 U	5.	1	ug/l	101	102	80-120	1	30
1,3-Dichlorobenzene	5 U	5.	1	ug/l	101	102	80-120	1	30
1,4-Dichlorobenzene	5 U	5.	1	ug/l	103	103	80-120	1	30
Dichlorodifluoromethane	5 U	5.	0.5	ug/l	115	116	48-132	1	30
1,1-Dichloroethane	5 U	5.	0.5	ug/l	98	99	80-120	1	30
1,2-Dichloroethane	5 U	5.	0.5	ug/l	106	106	65-135	0	30
1,1-Dichloroethene	5 U	5.	0.5	ug/l	112	113	76-124	1	30
cis-1,2-Dichloroethene	5 U	5.	0.5	ug/l	105	106	80-120	1	30
trans-1,2-Dichloroethene	5 U	5.	0.5	ug/l	116	118	80-120	2	30
1,2-Dichloropropane	5 U	5.	0.5	ug/l	101	101	80-120	0	30
1,3-Dichloropropane	5 U	5.	0.5	ug/l	99	99	80-120	0	30
2,2-Dichloropropane	5 U	5.	0.5	ug/l	104	104	67-124	1	30
1,1-Dichloropropene	5 U	5.	1	ug/l	110	110	80-120	1	30
cis-1,3-Dichloropropene	5 U	5.	0.5	ug/l	96	96	80-120	0	30
trans-1,3-Dichloropropene	5 U	5.	0.5	ug/l	95	95	76-120	0	30
Ethyl t-butyl ether	5 U	5.	0.5	ug/l	97	98	74-120	1	30
Ethylbenzene	5 U	5.	0.5	ug/l	102	103	79-120	0	30
Freon 113	5 U	5.	2	ug/l	101	100	67-127	0	30
Freon 133a	5 U	5.	2	ug/l	79	82	46-152	3	30
Hexachlorobutadiene	5 U	5.	2	ug/l	100	98	51-125	2	30
2-Hexanone	10 U	10.	3	ug/l	74	80	44-126	8	30
di-Isopropyl ether	5 U	5.	0.5	ug/l	98	98	65-120	1	30
Isopropylbenzene	5 U	5.	1	ug/l	104	104	77-120	0	30
p-Isopropyltoluene	5 U	5.	1	ug/l	100	101	80-120	1	30
Methyl Iodide	5 U	5.	0.5	ug/l	105	106	75-128	1	30
Methyl Tertiary Butyl Ether	5 U	5.	0.5	ug/l	108	108	75-120	0	30
4-Methyl-2-pentanone	10 U	10.	3	ug/l	78	84	51-124	6	30
Methylene Chloride	5 U	5.	2	ug/l	116	116	80-120	0	30
n-Propylbenzene	5 U	5.	1	ug/l	102	102	80-120	0	30
Styrene	5 U	5.	1	ug/l	104	103	80-120	0	30
1,1,1,2-Tetrachloroethane	5 U	5.	0.5	ug/l	103	101	80-120	2	30
1,1,2,2-Tetrachloroethane	5 U	5.	0.5	ug/l	89	92	70-120	4	30
Tetrachloroethene	5 U	5.	0.5	ug/l	107	108	80-120	1	30
Toluene	5 U	5.	0.5	ug/l	104	104	80-120	0	30
1,2,3-Trichlorobenzene	5 U	5.	1	ug/l	102	104	58-126	2	30
1,2,4-Trichlorobenzene	5 U	5.	1	ug/l	103	104	65-120	1	30
1,1,1-Trichloroethane	5 U	5.	0.5	ug/l	96	94	66-126	1	30
1,1,2-Trichloroethane	5 U	5.	0.5	ug/l	98	100	80-120	2	30
Trichloroethene	5 U	5.	0.5	ug/l	106	109	80-120	3	30
Trichlorofluoromethane	5 U	5.	0.5	ug/l	117	115	65-130	2	30
1,2,3-Trichloropropane	5 U	5.	1	ug/l	89	94	76-120	5	30
1,2,4-Trimethylbenzene	5 U	5.	1	ug/l	103	103	74-120	0	30
1,3,5-Trimethylbenzene	5 U	5.	1	ug/l	102	104	74-120	1	30
Vinyl Acetate	10 U	10.	2	ug/l	74	74	56-135	0	30

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(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476367
Reported: 05/29/14 at 02:14 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vinyl Chloride	5	U	5.	0.5	ug/l	111	112	63-120	1	30
m+p-Xylene	5	U	5.	0.5	ug/l	102	102	80-120	0	30
o-Xylene	5	U	5.	0.5	ug/l	102	102	80-120	0	30
Batch number: 14147162401B	Sample number(s): 7473395-7473396									
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: B141491AA	Sample number(s): 7473395-7473396 UNSPK: P475237								
Acetone	109	118	31-195	7	30				
Acrolein	87	71	10-165	22	30				
Acrylonitrile	75	82	48-139	8	30				
t-Amyl methyl ether	83	85	50-132	2	30				
Benzene	101	94	55-143	8	30				
Bromobenzene	109	92	43-139	18	30				
Bromochloromethane	118	110	60-137	8	30				
Bromodichloromethane	98	91	53-136	8	30				
Bromoform	94	91	50-144	4	30				
Bromomethane	121	111	42-168	9	30				
2-Butanone	85	93	37-163	8	30				
t-Butyl alcohol	95	88	47-153	8	30				
n-Butylbenzene	115	76	30-146	42*	30				
sec-Butylbenzene	109	88	33-157	23	30				
tert-Butylbenzene	108	86	41-152	23	30				
Carbon Disulfide	78	71	48-146	9	30				
Carbon Tetrachloride	109	100	51-165	9	30				
Chlorobenzene	105	93	49-135	13	30				
Chloroethane	114	106	39-152	8	30				
2-Chloroethyl Vinyl Ether	73	76	32-139	3	30				
Chloroform	111	105	61-142	7	30				
1-Chlorohexane	106	89	70-130	18	30				
Chloromethane	102	93	36-143	9	30				
2-Chlorotoluene	105	88	42-146	18	30				
4-Chlorotoluene	108	85	39-145	24	30				
Chlorotrifluoroethene	109	105	70-130	0	30				
1,2-Dibromo-3-chloropropane	79	74	34-165	7	30				
Dibromochloromethane	97	90	51-128	8	30				
1,2-Dibromoethane	95	91	54-129	5	30				
Dibromomethane	95	93	57-130	3	30				
1,2-Dichlorobenzene	111	89	36-133	24	30				
1,3-Dichlorobenzene	108	86	34-134	24	30				
1,4-Dichlorobenzene	108	83	35-136	27	30				
Dichlorodifluoromethane	106	102	26-151	5	30				
1,1-Dichloroethane	100	95	63-142	7	30				
1,2-Dichloroethane	108	104	54-143	5	30				
1,1-Dichloroethene	111	105	61-149	6	30				
cis-1,2-Dichloroethene	103	98	67-135	6	30				

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476367
Reported: 05/29/14 at 02:14 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
trans-1,2-Dichloroethene	111	103	64-144	9	30				
1,2-Dichloropropane	97	93	54-144	6	30				
1,3-Dichloropropane	94	89	51-140	6	30				
2,2-Dichloropropane	94	88	53-147	8	30				
1,1-Dichloropropene	106	97	54-145	10	30				
cis-1,3-Dichloropropene	88	86	45-137	3	30				
trans-1,3-Dichloropropene	85	82	51-134	5	30				
Ethyl t-butyl ether	85	87	58-124	2	30				
Ethylbenzene	102	91	44-141	13	30				
Freon 113	102	91	56-156	12	30				
Freon 133a	118	116	61-131	2	30				
Hexachlorobutadiene	127	75	10-155	53*	30				
2-Hexanone	74	81	32-160	8	30				
di-Isopropyl ether	91	90	59-133	3	30				
Isopropylbenzene	108	89	38-144	21	30				
p-Isopropyltoluene	103	79	29-152	28	30				
Methyl Iodide	106	99	52-139	8	30				
Methyl Tertiary Butyl Ether	86	90	55-129	4	30				
4-Methyl-2-pentanone	75	82	46-139	9	30				
Methylene Chloride	107	100	60-149	7	30				
n-Propylbenzene	111	88	39-157	23	30				
Styrene	105	90	35-134	16	30				
1,1,1,2-Tetrachloroethane	101	92	55-139	11	30				
1,1,2,2-Tetrachloroethane	88	87	29-182	2	30				
Tetrachloroethene	134	112	42-149	19	30				
Toluene	102	87	50-146	16	30				
1,2,3-Trichlorobenzene	104	75	10-140	33*	30				
1,2,4-Trichlorobenzene	102	73	10-136	33*	30				
1,1,1-Trichloroethane	99	93	52-146	7	30				
1,1,2-Trichloroethane	99	95	58-152	5	30				
Trichloroethene	105	97	53-144	9	30				
Trichlorofluoromethane	116	104	47-163	12	30				
1,2,3-Trichloropropane	95	91	36-180	5	30				
1,2,4-Trimethylbenzene	104	86	37-149	20	30				
1,3,5-Trimethylbenzene	109	87	38-150	24	30				
Vinyl Acetate	46	40	21-139	12	30				
Vinyl Chloride	111	100	50-154	11	30				
m+p-Xylene	104	88	44-137	18	30				
o-Xylene	101	89	42-137	14	30				
Batch number: 14147162401B Sample number(s): 7473395-7473396 BKG: 7473396									
14a Moisture Content by 160.3						12.9	13.8	6	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12a Volatile Organics EPA8260B

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476367
Reported: 05/29/14 at 02:14 PM

Surrogate Quality Control

Batch number: B141491AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7473395	106	102	99	92
7473396	107	104	99	91
Blank	109	104	97	94
LCS	106	105	97	109
LCSD	106	103	98	102
MS	104	98	103	100
MSD	106	105	102	102
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141471AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7473394	101	101	98	95
7473397	101	101	98	95
Blank	101	100	99	96
LCS	101	99	100	100
LCSD	101	101	100	99
Limits:	86-118	80-120	88-110	86-115

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/21/2014

CarrierName: FedEx

AirbillNo: 770058142099

A-13013
G-1476367
S-7473394-97

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20140521-02

Cooler #: 1

Lab: Lancaster

Lab Phone: 717-556-7259

Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc. Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
TB2-052114	5/21/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																		X																	
SVL-512-SA5D-SB-5.0-6.0	5/21/14 13:40	SO	None	3 - Encore	10 day																		X																	
SVL-512-SA5D-SB-5.0-6.0	5/21/14 13:40	SO	None	1 - 4 oz glass	10 day																		X																	soil moisture
SVL-515-SA5D-SB-5.0-6.0	5/21/14 15:10	SO	None	3 - Encore	10 day																		X																	
SVL-515-SA5D-SB-5.0-6.0	5/21/14 15:10	SO	None	1 - 4 oz glass	10 day																		X																	soil moisture

Special Instructions:

Sampler: Van Vallanash

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
	05/21/2014	1600									
										5/22/14	0925

SOIL VAPOR

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/21/2014
CarrierName: FedEx
AirbillNo: 770058142099

A-13013
G-1476367
S-7473394-97

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140521-04
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc. Nitrate. Nitrite. TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
EB-052114	5/21/14 14:10	WQ	HCl	3 - 40 mL Vial	10 day																		X																	

Special Instructions:

Sampler: Van Vathanaxay

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
	05/21/2014	16:00									
										5/22/14	0925

SOIL VAPOR

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 15293

Group Number(s): 476367

Client: CDM Smith

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/22/2014 9:25
Number of Packages:	4	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	9
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	No		
VOA Vial Headspace ≥ 6mm:	N/A		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Joseph Gruber (5200) at 11:54 on 05/22/2014

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT131	0.9	DT	Wet	Y	Bagged	N	N
2	DT131	0.8	DT	Wet	Y	Bagged	N	N
3	DT131	1.2	DT	Wet	Y	Bagged	N	N
4	DT131	1.0	DT	Wet	Y	Bagged	N	N

Sample Date/Time Discrepancy Details

Sample ID on COC	Date/Time on Label	Comments
FDG2-SL-584SA5D-SB-4.0-5.0	5/21/2014 08:18	1 16 oz. container

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 13, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/22/2014
Group Number: 1476280
SDG: PH191
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
FB-052114 Water	7472961

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: FB-052114 Water
SSFL Phase 3

LL Sample # WW 7472961
LL Group # 1476280
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 14:00 by PH

Submitted: 05/22/2014 09:25
Reported: 06/13/2014 16:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FB521 SDG#: PH191-01FB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6		1
10335	Acrolein	107-02-8	100	U	100	40		1
10335	Acrylonitrile	107-13-1	20	U	20	4		1
10335	t-Amyl methyl ether	994-05-8	5	U	5	0.5		1
10335	Benzene	71-43-2	5	U	5	0.5		1
10335	Bromobenzene	108-86-1	5	U	5	1		1
10335	Bromochloromethane	74-97-5	5	U	5	1		1
10335	Bromodichloromethane	75-27-4	5	U	5	0.5		1
10335	Bromoform	75-25-2	5	U	5	0.5		1
10335	Bromomethane	74-83-9	5	U	5	0.5		1
10335	2-Butanone	78-93-3	10	U	10	3		1
10335	t-Butyl alcohol	75-65-0	50	U	50	5		1
10335	n-Butylbenzene	104-51-8	5	U	5	1		1
10335	sec-Butylbenzene	135-98-8	5	U	5	1		1
10335	tert-Butylbenzene	98-06-6	5	U	5	1		1
10335	Carbon Disulfide	75-15-0	5	U	5	1		1
10335	Carbon Tetrachloride	56-23-5	5	U	5	0.5		1
10335	Chlorobenzene	108-90-7	5	U	5	0.5		1
10335	Chloroethane	75-00-3	5	U	5	0.5		1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2		1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.							
10335	Chloroform	67-66-3	0.7	J	5	0.5		1
10335	1-Chlorohexane	544-10-5	5	U	5	1		1
10335	Chloromethane	74-87-3	5	U	5	0.5		1
10335	2-Chlorotoluene	95-49-8	5	U	5	1		1
10335	4-Chlorotoluene	106-43-4	5	U	5	1		1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2		1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2		1
10335	Dibromochloromethane	124-48-1	5	U	5	0.5		1
10335	1,2-Dibromoethane	106-93-4	5	U	5	0.5		1
10335	Dibromomethane	74-95-3	5	U	5	0.5		1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1		1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1		1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1		1
10335	Dichlorodifluoromethane	75-71-8	5	U	5	0.5		1
10335	1,1-Dichloroethane	75-34-3	5	U	5	0.5		1
10335	1,2-Dichloroethane	107-06-2	5	U	5	0.5		1
10335	1,1-Dichloroethene	75-35-4	5	U	5	0.5		1
10335	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.5		1
10335	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.5		1
10335	1,2-Dichloropropane	78-87-5	5	U	5	0.5		1
10335	1,3-Dichloropropane	142-28-9	5	U	5	0.5		1
10335	2,2-Dichloropropane	594-20-7	5	U	5	0.5		1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1		1
10335	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.5		1
10335	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.5		1
10335	Ethyl t-butyl ether	637-92-3	5	U	5	0.5		1
10335	Ethylbenzene	100-41-4	5	U	5	0.5		1
10335	Freon 113	76-13-1	5	U	5	2		1
10335	Freon 133a	75-88-7	5	U	5	2		1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: FB-052114 Water
SSFL Phase 3

LL Sample # WW 7472961
LL Group # 1476280
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 14:00 by PH

Submitted: 05/22/2014 09:25
Reported: 06/13/2014 16:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FB521 SDG#: PH191-01FB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2		1
10335	2-Hexanone	591-78-6	10	U	10	3		1
10335	di-Isopropyl ether	108-20-3	5	U	5	0.5		1
10335	Isopropylbenzene	98-82-8	5	U	5	1		1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1		1
10335	Methyl Iodide	74-88-4	5	U	5	0.5		1
10335	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5		1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3		1
10335	Methylene Chloride	75-09-2	7		5	2		1
10335	n-Propylbenzene	103-65-1	5	U	5	1		1
10335	Styrene	100-42-5	5	U	5	1		1
10335	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.5		1
10335	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.5		1
10335	Tetrachloroethene	127-18-4	5	U	5	0.5		1
10335	Toluene	108-88-3	5	U	5	0.5		1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1		1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1		1
10335	1,1,1-Trichloroethane	71-55-6	5	U	5	0.5		1
10335	1,1,2-Trichloroethane	79-00-5	5	U	5	0.5		1
10335	Trichloroethene	79-01-6	5	U	5	0.5		1
10335	Trichlorofluoromethane	75-69-4	5	U	5	0.5		1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1		1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1		1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1		1
10335	Vinyl Acetate	108-05-4	10	U	10	2		1
10335	Vinyl Chloride	75-01-4	5	U	5	0.5		1
10335	m+p-Xylene	179601-23-1	5	U	5	0.5		1
10335	o-Xylene	95-47-6	5	U	5	0.5		1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: chlorotrifluoroethene.

GC/MS Volatiles	**SW-846 8260B SIM**		ug/l		ug/l	ug/l	ug/l	
00527	1,4-Dioxane	123-91-1	2.0	U	2.0	0.5		1
GC/MS Semivolatiles	**SW-846 8270D**		ug/l		ug/l	ug/l	ug/l	
10461	Acenaphthene	83-32-9	0.5	U	0.5	0.1		1
10461	Acenaphthylene	208-96-8	0.5	U	0.5	0.1		1
10461	Aniline	62-53-3	1	U	1	0.5		1
10461	Anthracene	120-12-7	0.5	U	0.5	0.1		1
10461	Benzidine	92-87-5	63	U	63	21		1
10461	Benzo(a)anthracene	56-55-3	0.5	U	0.5	0.1		1
10461	Benzo(a)pyrene	50-32-8	0.5	U	0.5	0.1		1
10461	Benzo(b)fluoranthene	205-99-2	0.5	U	0.5	0.1		1
10461	Benzo(g,h,i)perylene	191-24-2	0.5	U	0.5	0.1		1
10461	Benzo(k)fluoranthene	207-08-9	0.5	U	0.5	0.1		1
10461	Benzoic acid	65-85-0	16	U	16	6		1
10461	Benzyl alcohol	100-51-6	16	U	16	11		1
10461	1,1'-Biphenyl	92-52-4	1	U	1	0.5		1
10461	4-Bromophenyl-phenylether	101-55-3	1	U	1	0.5		1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: FB-052114 Water
SSFL Phase 3

LL Sample # WW 7472961
LL Group # 1476280
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 14:00 by PH

Submitted: 05/22/2014 09:25
Reported: 06/13/2014 16:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FB521 SDG#: PH191-01FB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270D			ug/l		ug/l	ug/l	ug/l	
10461	Butylbenzylphthalate	85-68-7	5	U	5	2		1
10461	Di-n-butylphthalate	84-74-2	5	U	5	2		1
10461	Carbazole	86-74-8	1	U	1	0.5		1
10461	4-Chloro-3-methylphenol	59-50-7	1	U	1	0.5		1
10461	4-Chloroaniline	106-47-8	1	U	1	0.5		1
10461	bis(2-Chloroethoxy)methane	111-91-1	1	U	1	0.5		1
10461	bis(2-Chloroethyl)ether	111-44-4	1	U	1	0.5		1
10461	bis(2-Chloroisopropyl)ether	39638-32-9	1	U	1	0.5		1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.							
10461	2-Chloronaphthalene	91-58-7	1	U	1	0.4		1
10461	2-Chlorophenol	95-57-8	1	U	1	0.5		1
10461	4-Chlorophenyl-phenylether	7005-72-3	1	U	1	0.5		1
10461	Chrysene	218-01-9	0.5	U	0.5	0.1		1
10461	Dibenz(a,h)anthracene	53-70-3	0.5	U	0.5	0.1		1
10461	Dibenzofuran	132-64-9	1	U	1	0.5		1
10461	1,2-Dichlorobenzene	95-50-1	1	U	1	0.5		1
10461	1,3-Dichlorobenzene	541-73-1	1	U	1	0.5		1
10461	1,4-Dichlorobenzene	106-46-7	1	U	1	0.5		1
10461	3,3'-Dichlorobenzidine	91-94-1	5	U	5	2		1
10461	2,4-Dichlorophenol	120-83-2	1	U	1	0.5		1
10461	2,6-Dichlorophenol	87-65-0	1	U	1	0.5		1
10461	Diethylphthalate	84-66-2	5	U	5	2		1
10461	2,4-Dimethylphenol	105-67-9	1	U	1	0.5		1
10461	3,5-Dimethylphenol	108-68-9	11	U	11	3		1
10461	Dimethylphthalate	131-11-3	5	U	5	2		1
10461	4,6-Dinitro-2-methylphenol	534-52-1	16	U	16	5		1
10461	2,4-Dinitrophenol	51-28-5	32	U	32	11		1
10461	1,2-Diphenylhydrazine	122-66-7	1	U	1	0.5		1
10461	bis(2-Ethylhexyl)phthalate	117-81-7	5	U	5	2		1
10461	Fluoranthene	206-44-0	0.5	U	0.5	0.1		1
10461	Fluorene	86-73-7	0.5	U	0.5	0.1		1
10461	Hexachlorobenzene	118-74-1	0.5	U	0.5	0.1		1
10461	Hexachlorobutadiene	87-68-3	1	U	1	0.5		1
10461	Hexachlorocyclopentadiene	77-47-4	16	U	16	5		1
10461	Hexachloroethane	67-72-1	5	U	5	1		1
10461	Indeno(1,2,3-cd)pyrene	193-39-5	0.5	U	0.5	0.1		1
10461	Isophorone	78-59-1	1	U	1	0.5		1
10461	1-Methylnaphthalene	90-12-0	0.5	U	0.5	0.1		1
10461	2-Methylnaphthalene	91-57-6	0.5	U	0.5	0.1		1
10461	2-Methylphenol	95-48-7	1	U	1	0.5		1
10461	4-Methylphenol	106-44-5	1	U	1	0.5		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
10461	Naphthalene	91-20-3	0.2	J	0.5	0.1		1
10461	NDPA as diphenylamine	n.a.	5	U	5	2		1

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Sample Description: FB-052114 Water
SSFL Phase 3

LL Sample # WW 7472961
LL Group # 1476280
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 14:00 by PH

Submitted: 05/22/2014 09:25
Reported: 06/13/2014 16:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FB521 SDG#: PH191-01FB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10461	2-Nitroaniline	88-74-4	1	U	1	0.5		1
10461	3-Nitroaniline	99-09-2	1	U	1	0.5		1
10461	4-Nitroaniline	100-01-6	1	U	1	0.5		1
10461	Nitrobenzene	98-95-3	1	U	1	0.5		1
10461	2-Nitrophenol	88-75-5	1	U	1	0.5		1
10461	4-Nitrophenol	100-02-7	32	U	32	11		1
10461	N-Nitrosodimethylamine	62-75-9	5	U	5	2		1
10461	N-Nitroso-di-n-propylamine	621-64-7	1	U	1	0.5		1
10461	N-Nitrosodiphenylamine	86-30-6	1	U	1	0.5		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10461	Di-n-octylphthalate	117-84-0	5	U	5	2		1
10461	Pentachlorophenol	87-86-5	5	U	5	1		1
10461	Phenanthrene	85-01-8	0.5	U	0.5	0.1		1
10461	Phenol	108-95-2	1	U	1	0.5		1
10461	Pyrene	129-00-0	0.5	U	0.5	0.1		1
10461	Pyridine	110-86-1	5	U	5	2		1
10461	1,2,4-Trichlorobenzene	120-82-1	1	U	1	0.5		1
10461	2,4,5-Trichlorophenol	95-95-4	1	U	1	0.5		1
10461	2,4,6-Trichlorophenol	88-06-2	1	U	1	0.5		1
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
12971	Acenaphthene	83-32-9	0.053	U	0.053	0.011		1
12971	Acenaphthylene	208-96-8	0.053	U	0.053	0.011		1
12971	Anthracene	120-12-7	0.053	U	0.053	0.011		1
12971	Benzo(a)anthracene	56-55-3	0.053	U	0.053	0.011		1
12971	Benzo(a)pyrene	50-32-8	0.053	U	0.053	0.011		1
12971	Benzo(b)fluoranthene	205-99-2	0.053	U	0.053	0.011		1
12971	Benzo(e)pyrene	192-97-2	0.053	U	0.053	0.011		1
12971	Benzo(g,h,i)perylene	191-24-2	0.053	U	0.053	0.011		1
12971	Benzo(k)fluoranthene	207-08-9	0.053	U	0.053	0.011		1
12971	Butylbenzylphthalate	85-68-7	1.1	U	1.1	0.053		1
12971	Di-n-butylphthalate	84-74-2	0.089	J	1.1	0.053		1
12971	Chrysene	218-01-9	0.053	U	0.053	0.011		1
12971	Dibenz(a,h)anthracene	53-70-3	0.053	U	0.053	0.011		1
12971	Diethylphthalate	84-66-2	1.1	U	1.1	0.053		1
12971	Dimethylphthalate	131-11-3	1.1	U	1.1	0.053		1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.058	J	1.1	0.053		1
12971	Fluoranthene	206-44-0	0.053	U	0.053	0.011		1
12971	Fluorene	86-73-7	0.053	U	0.053	0.011		1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.053	U	0.053	0.011		1
12971	1-Methylnaphthalene	90-12-0	0.022	J	0.053	0.011		1
12971	2-Methylnaphthalene	91-57-6	0.032	J	0.053	0.011		1
12971	Morpholine	110-91-8	21	U	21	21		1
12971	Naphthalene	91-20-3	0.11		0.053	0.032		1
12971	N-Nitrosodimethylamine	62-75-9	0.053	U	0.053	0.011		1
12971	Di-n-octylphthalate	117-84-0	1.1	U	1.1	0.053		1

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Sample Description: FB-052114 Water
SSFL Phase 3

LL Sample # WW 7472961
LL Group # 1476280
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 14:00 by PH

Submitted: 05/22/2014 09:25
Reported: 06/13/2014 16:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FB521 SDG#: PH191-01FB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
12971	Phenanthrene	85-01-8	0.053	U	0.053	0.032		1
12971	Pyrene	129-00-0	0.053	U	0.053	0.011		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: 1-methylnaphthalene							
	Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the result is within the acceptance range allowed by the method, the data is reported.							
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20		1
Aldehydes & Ketones	**SW-846 8315A**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
13022	Formaldehyde	50-00-0	50	U	50	30		1
Explosives	**SW-846 8330A**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10131	4-Amino-2,6-Dinitrotoluene	19406-51-0	0.60	U	0.60	0.30	10000000	1
10131	2-Amino-4,6-Dinitrotoluene	35572-78-2	0.60	U	0.60	0.20	10000000	1
10131	2,6-Diamino-4-nitrotoluene	59229-75-3	0.60	U	0.60	0.20	10000000	1
10131	2,4-Diamino-6-nitrotoluene	6629-29-4	0.60	U	0.60	0.20	10000000	1
10131	1,3-Dinitrobenzene	99-65-0	0.60	U	0.60	0.20	10000000	1
10131	2,4-Dinitrotoluene	121-14-2	0.60	U	0.60	0.20	10000000	1
10131	2,6-Dinitrotoluene	606-20-2	0.60	U	0.60	0.20	10000000	1
10131	HMX	2691-41-0	2.0	U	2.0	0.65	10000000	1
10131	Nitrobenzene	98-95-3	0.60	U	0.60	0.20	10000000	1
10131	Nitroglycerin	55-63-0	15	U	15	5.2	10000000	1
10131	2-Nitrotoluene	88-72-2	0.60	U	0.60	0.20	10000000	1
10131	3-Nitrotoluene	99-08-1	1.2	U	1.2	0.40	10000000	1
10131	4-Nitrotoluene	99-99-0	1.2	U	1.2	0.60	10000000	1
10131	PETN	78-11-5	18	U	18	6.0	10000000	1
10131	RDX	121-82-4	0.60	U	0.60	0.20	10000000	1

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Sample Description: FB-052114 Water
SSFL Phase 3

LL Sample # WW 7472961
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Account # 13013

Project Name: SSFL Phase 3 Sampling

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3201 Jermantown Road
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FB521 SDG#: PH191-01FB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
Explosives	**SW-846 8330A**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10131	Tetryl	479-45-8	0.60	U	0.60	0.40	10000000	1
10131	1,3,5-Trinitrobenzene	99-35-4	0.60	U	0.60	0.20	10000000	1
10131	2,4,6-Trinitrotoluene	118-96-7	0.60	U	0.60	0.20	10000000	1
Herbicides	**SW-846 8151A**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10407	2,4-D	94-75-7	0.51	U	0.51	0.16		1
10407	Dalapon	75-99-0	1.3	U	1.3	0.25		1
10407	2,4-DB	94-82-6	1.0	U	1.0	0.31		1
10407	Dicamba	1918-00-9	0.31	U	0.31	0.082		1
10407	Dinoseb	88-85-7	0.51	U	0.51	0.12		1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.							
10407	2,4-DP (Dichlorprop)	120-36-5	0.51	U	0.51	0.16		1
10407	MCPA	94-74-6	200	U	200	51		1
10407	MCPP	93-65-2	200	U	200	51		1
10407	2,4,5-T	93-76-5	0.051	U	0.051	0.015		1
10407	2,4,5-TP	93-72-1	0.051	U	0.051	0.010		1
Perchlorate	**SW-846 6850 1/2007**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
06386	6b Perchlorate (Method 6850)	14797-73-0	1.0	U	1.0	0.20		1
Pesticides/PCBs	**SW-846 8081B**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10589	Aldrin	309-00-2	0.0089	U	0.0089	0.0018		1
10589	Alpha BHC	319-84-6	0.0089	U	0.0089	0.0027		1
10589	Beta BHC	319-85-7	0.0089	U	0.0089	0.0030		1
10589	Gamma BHC - Lindane	58-89-9	0.0089	U	0.0089	0.0018		1
10589	Chlordane	57-74-9	0.44	U	0.44	0.14		1
10589	p,p-DDD	72-54-8	0.018	U	0.018	0.0044		1
10589	p,p-DDE	72-55-9	0.018	U	0.018	0.0044		1
10589	p,p-DDT	50-29-3	0.018	U	0.018	0.0046		1
10589	Delta BHC	319-86-8	0.0089	U	0.0089	0.0030		1
10589	Dieldrin	60-57-1	0.018	U	0.018	0.0047		1
10589	Endosulfan I	959-98-8	0.0089	U	0.0089	0.0038		1
10589	Endosulfan II	33213-65-9	0.018	U	0.018	0.013		1
10589	Endosulfan Sulfate	1031-07-8	0.018	U	0.018	0.0084		1
10589	Endrin	72-20-8	0.018	U	0.018	0.0072		1
10589	Endrin Aldehyde	7421-93-4	0.088	U	0.088	0.018		1
10589	Endrin Ketone	53494-70-5	0.018	U	0.018	0.0044		1
10589	Heptachlor	76-44-8	0.0089	U	0.0089	0.0018		1
10589	Heptachlor Epoxide	1024-57-3	0.0089	U	0.0089	0.0020		1
10589	Methoxychlor	72-43-5	0.088	U	0.088	0.027		1
10589	Mirex	2385-85-5	0.050	U	0.050	0.050		1
10589	Toxaphene	8001-35-2	0.88	U	0.88	0.27		1
	Reporting limits were raised due to interference from the sample matrix.							
Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
13092	Aroclor 5432	63496-31-1	0.42	U	0.42	0.083		1

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Sample Description: FB-052114 Water
SSFL Phase 3

LL Sample # WW 7472961
LL Group # 1476280
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 14:00 by PH

Submitted: 05/22/2014 09:25
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FB521 SDG#: PH191-01FB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
13092	Aroclor 5442	12642-23-8	0.42	U	0.42	0.083		1
13092	Aroclor 5460	11126-42-4	0.42	U	0.42	0.092		1
13092	PCB-1016	12674-11-2	0.42	U	0.42	0.083		1
13092	PCB-1221	11104-28-2	0.42	U	0.42	0.083		1
13092	PCB-1232	11141-16-5	0.42	U	0.42	0.17		1
13092	PCB-1242	53469-21-9	0.42	U	0.42	0.083		1
13092	PCB-1248	12672-29-6	0.42	U	0.42	0.083		1
13092	PCB-1254	11097-69-1	0.42	U	0.42	0.083		1
13092	PCB-1260	11096-82-5	0.42	U	0.42	0.13		1
13092	PCB-1262	37324-23-5	0.42	U	0.42	0.17		1
13092	PCB-1268	11100-14-4	0.42	U	0.42	0.13		1
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
12926	Diethylene glycol	111-46-6	10	U	10	8.0		1
12926	Ethylene glycol	107-21-1	10	U	10	8.0		1
12926	Propylene glycol	57-55-6	10	U	10	8.0		1
12926	Triethylene glycol	112-27-6	10	U	10	8.0		1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
10319	m-Terphenyl	92-06-8	0.0051	U	0.0051	0.0020		1
10319	o-Terphenyl	84-15-1	0.0051	U	0.0051	0.0020		1
10319	p-Terphenyl	92-94-4	0.0051	U	0.0051	0.0020		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.10	U	0.10	0.050		1
10365	EFH (C15-C20)	n.a.	0.10	U	0.10	0.050		1
10365	EFH (C21-C30)	n.a.	0.10	U	0.10	0.050		1
10365	EFH (C30 - C40)	n.a.	0.50	U	0.50	0.10		1
10365	EFH (C8-C11)	n.a.	0.10	U	0.10	0.050		1
13205	EFH C12-C14 w/ SiGel	n.a.	0.10	U	0.10	0.050		1
13205	EFH C15-C20 w/ SiGel	n.a.	0.10	U	0.10	0.050		1
13205	EFH C21-C30 w/ SiGel	n.a.	0.10	U	0.10	0.050		1
13205	EFH C30-C40 w/ SiGel	n.a.	0.50	U	0.50	0.10		1
13205	EFH C8-C11 w/ SiGel	n.a.	0.10	U	0.10	0.050		1
	The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400	U	0.400	0.0828		1
07044	Antimony	7440-36-0	0.0400	U	0.0400	0.0053		1
07035	Arsenic	7440-38-2	0.0400	U	0.0400	0.0068		1
07046	Barium	7440-39-3	0.0100	U	0.0100	0.00033		1
07047	Beryllium	7440-41-7	0.0100	U	0.0100	0.00067		1
08014	Boron	7440-42-8	0.100	U	0.100	0.0084		1
07049	Cadmium	7440-43-9	0.0100	U	0.0100	0.00076		1
01750	Calcium	7440-70-2	0.400	U	0.400	0.0334		1
07051	Chromium	7440-47-3	0.0300	U	0.0300	0.0016		1

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Sample Description: FB-052114 Water
SSFL Phase 3

LL Sample # WW 7472961
LL Group # 1476280
Account # 13013

Project Name: SSFL Phase 3 Sampling

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Submitted: 05/22/2014 09:25
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3201 Jermantown Road
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FB521 SDG#: PH191-01FB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	**mg/l**	
07052	Cobalt	7440-48-4	0.0100 U	0.0100	0.0013		1
07053	Copper	7440-50-8	0.0200 U	0.0200	0.0027		1
01754	Iron	7439-89-6	0.400 U	0.400	0.0430		1
07055	Lead	7439-92-1	0.0300 U	0.0300	0.0047		1
01756	Lithium	7439-93-2	0.0400 U	0.0400	0.0047		1
01757	Magnesium	7439-95-4	0.200 U	0.200	0.0167		1
07058	Manganese	7439-96-5	0.0100 U	0.0100	0.00083		1
07060	Molybdenum	7439-98-7	0.0200 U	0.0200	0.0017		1
07061	Nickel	7440-02-0	0.0200 U	0.0200	0.0015		1
10143	Phosphorus	7723-14-0	0.200 U	0.200	0.0418		1
01762	Potassium	7440-09-7	1.00 U	1.00	0.0980		1
01767	Sodium	7440-23-5	2.00 U	2.00	0.167		1
07069	Tin	7440-31-5	0.0400 U	0.0400	0.0029		1
07070	Titanium	7440-32-6	0.0200 U	0.0200	0.0017		1
07071	Vanadium	7440-62-2	0.0100 U	0.0100	0.0020		1
07072	Zinc	7440-66-6	0.0400 U	0.0400	0.0020		1
10144	Zirconium	7440-67-7	0.0110 J	0.100	0.0084		1
	SW-846 6020A		**mg/l**	**mg/l**	**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040 U	0.0040	0.00050		1
06042	Silver	7440-22-4	0.0010 U	0.0010	0.00011		1
06044	Strontium	7440-24-6	0.0020 U	0.0020	0.00034		1
06045	Thallium	7440-28-0	0.0010 U	0.0010	0.00015		1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A	7439-97-6	0.00020 U	0.00020	0.000060		1
Wet Chemistry	**EPA 300.0**		**mg/l**	**mg/l**	**mg/l**	**mg/l**	
01505	1b Anions by 300.0-Bromide	24959-67-9	0.50 U	0.50	0.40		1
00224	1b Anions by 300.0-Chloride	16887-00-6	0.40 U	0.40	0.20		1
01504	1b Anions by 300.0-Fluoride	16984-48-8	0.10 U	0.10	0.080		1
00368	1b Anions by 300.0-Nitrate	14797-55-8	0.10 U	0.10	0.050		1
01506	1b Anions by 300.0-Nitrite	14797-65-0	0.10 U	0.10	0.080		1
07322	1b Anions by 300.0-Orthophosph	7723-14-0	0.50 U	0.50	0.20		1
	The holding time was not met.						
00228	1b Anions by 300.0-Sulfate	14808-79-8	1.0 U	1.0	0.30		1
	EPA 351.2		**mg/l**	**mg/l**	**mg/l**	**mg/l**	
00217	26b Total Kjeldahl Nitrogen	n.a.	1.0 U	1.0	0.50		1
	EPA 365.1		**mg/l**	**mg/l**	**mg/l**	**mg/l**	
00345	1b Phosphate	14265-44-2	0.31 U	0.31	0.25		1
	SM 4500 N-1999		**mg/l**	**mg/l**	**mg/l**	**mg/l**	
06165	27b Total Nitrogen	n.a.	1.0 U	1.0	0.50		1
	SM 5310 C-2000		**mg/l**	**mg/l**	**mg/l**	**mg/l**	
00273	25b Total Organic Carbon 415.1	n.a.	1.0 U	1.0	0.50		1

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Sample Description: FB-052114 Water
SSFL Phase 3

LL Sample # WW 7472961
LL Group # 1476280
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 14:00 by PH

Submitted: 05/22/2014 09:25
Reported: 06/13/2014 16:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FB521 SDG#: PH191-01FB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
Wet Chemistry	**SW-846 7199**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
06467	2b Chromium VI by EPA 7199	18540-29-9	10.0	U	10.0	5.0		1
	SW-846 9040C		**Std. Units**		**Std. Units**	**Std. Units**	**Std. Units**	
12152	28b pH (9040B and 9040C)	n.a.	6.4		0.010	0.010		1
	The sample was analyzed outside of the project required holding time of 48 hours.							

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SSFL Phase 3

LL Sample # WW 7472961
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Project Name: SSFL Phase 3 Sampling

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FB521 SDG#: PH191-01FB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	**pg/l**	
10915	2378-TCDD	1746-01-6	1.98	U	1.98	0.272		1
10915	12378-PeCDD	40321-76-4	9.90	U	9.90	0.230		1
10915	123478-HxCDD	39227-28-6	9.90	U	9.90	0.129		1
10915	123678-HxCDD	57653-85-7	9.90	U	9.90	0.129		1
10915	123789-HxCDD	19408-74-3	9.90	U	9.90	0.122		1
10915	1234678-HpCDD	35822-46-9	1.23	JBQ	9.90	0.142		1
10915	OCDD	3268-87-9	6.37	JBQ	19.8	0.209		1
10915	2378-TCDF	51207-31-9	1.98	U	1.98	0.190		1
10915	12378-PeCDF	57117-41-6	0.333	JBQ	9.90	0.110		1
10915	23478-PeCDF	57117-31-4	9.90	U	9.90	0.102		1
10915	123478-HxCDF	70648-26-9	0.108	JBQ	9.90	0.100		1
10915	123678-HxCDF	57117-44-9	9.90	U	9.90	0.0972		1
10915	123789-HxCDF	72918-21-9	0.182	JQ	9.90	0.101		1
10915	234678-HxCDF	60851-34-5	0.188	JBQ	9.90	0.0902		1
10915	1234678-HpCDF	67562-39-4	0.176	JBQ	9.90	0.0588		1
10915	1234789-HpCDF	55673-89-7	0.328	JBQ	9.90	0.0704		1
10915	OCDF	39001-02-0	0.531	JBQ	19.8	0.166		1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	**pg/l**	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	U					1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	81	25 - 164
13C12-12378-PeCDD	84	25 - 181
13C12-123478-HxCDD	86	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	81	17 - 157
13C12-2378-TCDF	82	24 - 169
13C12-12378-PeCDF	88	24 - 185
13C12-23478-PeCDF	88	21 - 178
13C12-123478-HxCDF	85	26 - 152
13C12-123678-HxCDF	86	26 - 123
13C12-234678-HxCDF	90	28 - 136
13C12-123789-HxCDF	93	29 - 147
13C12-1234678-HpCDF	90	28 - 143
13C12-1234789-HpCDF	85	26 - 138
13C12-OCDF	81	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

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Sample Description: FB-052114 Water
SSFL Phase 3

LL Sample # WW 7472961
LL Group # 1476280
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 14:00 by PH

Submitted: 05/22/2014 09:25
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CDM Federal Programs Corp.
3201 Jermantown Road
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Fairfax VA 22030

FB521 SDG#: PH191-01FB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Action Limit	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

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Sample Description: FB-052114 Water
SSFL Phase 3

LL Sample # WW 7472961
LL Group # 1476280
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 14:00 by PH

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FB521 SDG#: PH191-01FB*

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141471AA	05/27/2014 12:47	Sarah A Guill	1
00527	13b 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E141442AA	05/24/2014 19:36	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	E141442AA	05/24/2014 19:36	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Y141471AA	05/27/2014 12:47	Sarah A Guill	1
10461	8b SVOCs by EPA 8270D	SW-846 8270D	1	14144WAO026	05/29/2014 19:03	Chad A Moline	1
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14144WAN026	06/03/2014 08:27	Brian K Graham	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	14144WAN026	05/27/2014 10:30	Anna E Stager	1
11010	8270D BNA Extraction	SW-846 3510C	1	14144WAO026	05/27/2014 10:30	Anna E Stager	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14142A94A	05/27/2014 15:26	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14142A94A	05/27/2014 15:26	Marie D Beamenderfer	1
13022	19b Formaldehyde 8315A	SW-846 8315A	1	141430009A	05/25/2014 20:27	James H Place	1
10131	18b Energetics by 8330A	SW-846 8330A	1	141470007A	05/29/2014 01:09	James H Place	1
10407	24b Herbicides by EPA 8151A	SW-846 8151A	1	141470029A	05/30/2014 04:30	Matthew S Listner	1
06386	6b Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141470003A	05/27/2014 18:42	Richard A Shober	1
10589	22b Pesticides by EPA 8081B	SW-846 8081B	1	141470014A	05/29/2014 07:35	Lisa A Reinert	1
13092	21b PCBs and PCTs 8082A	SW-846 8082A	1	141480020A	05/29/2014 17:47	Monica M Souders	1
13093	PCB/PCT Waters Update IV	SW-846 3510C	1	141480020A	05/28/2014 21:30	Karen L Beyer	1
11120	Pesticide Waters Update IV Ext	SW-846 3510C	1	141470014A	05/27/2014 16:00	Seth A Farrier	1
00816	Water Sample Herbicide Extract	SW-846 8151A	1	141470029A	05/28/2014 15:30	Seth A Farrier	1
01013	Formaldehyde Extraction	SW-846 8315A	1	141430009A	05/24/2014 12:30	David V Hershey Jr	1
11122	Energetics Extraction	SW-846 8330	1	141470007A	05/27/2014 18:30	Kelli M Barto	1
12926	20b Glycols by EPA 8015C	SW-846 8015C Feb 2007 Rev 3	1	141480034A	05/28/2014 19:57	Tyler O Griffin	1
10319	23b Terphenyls by 8015B	SW-846 8015B	1	141470010A	06/03/2014 00:29	Glorines Suarez-Rivera	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440025A	05/27/2014 23:42	Heather E Williams	1
13205	10b TPH-DRO (w/Si Gel)	SW-846 8015B modified	1	141440024A	05/28/2014 11:35	Heather E Williams	1
13212	EFH Water Ext. w/SiGel	SW-846 3510C	1	141440024A	05/27/2014 08:00	Kerrie A Freeburn	1
11203	EFH Waters Extraction	SW-846 3510C	1	141440025A	05/27/2014 08:00	Kerrie A Freeburn	1

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Sample Description: FB-052114 Water
SSFL Phase 3

LL Sample # WW 7472961
LL Group # 1476280
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 14:00 by PH

Submitted: 05/22/2014 09:25
Reported: 06/13/2014 16:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FB521 SDG#: PH191-01FB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10304	Terphenyls water prep	SW-846 3510C	1	141470010A	05/27/2014 17:00	JoElla L Rice	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14148001	05/31/2014 07:50	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B October 1994	1	14148001	05/28/2014 10:15	Brett M Weidman	1
01743	Aluminum	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
07044	Antimony	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
07046	Barium	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
07047	Beryllium	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
08014	Boron	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
01750	Calcium	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
07051	Chromium	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
07052	Cobalt	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
07053	Copper	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
01754	Iron	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
07055	Lead	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
01756	Lithium	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
07058	Manganese	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
07060	Molybdenum	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
07061	Nickel	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
10143	Phosphorus	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
01762	Potassium	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
01767	Sodium	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
07069	Tin	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
07070	Titanium	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
07072	Zinc	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
10144	Zirconium	SW-846 6010C	1	141480635002	05/29/2014 19:02	Katlin N Cataldi	1
06041	Selenium	SW-846 6020A	1	141480639002B	05/29/2014 22:45	John P Hook	1
06042	Silver	SW-846 6020A	1	141480639002A	05/29/2014 22:45	John P Hook	1
06044	Strontium	SW-846 6020A	1	141480639002A	05/29/2014 22:45	John P Hook	1
06045	Thallium	SW-846 6020A	1	141480639002A	05/29/2014 22:45	John P Hook	1
00259	3b Mercury 7470A	SW-846 7470A	1	141475713004	05/29/2014 08:30	Damary Valentin	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	141480635002	05/29/2014 10:10	Micaela L Dishong	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	141480639002	05/29/2014 09:22	Micaela L Dishong	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	141475713004	05/28/2014 09:00	James L Mertz	1
01505	1b Anions by 300.0-Bromide	EPA 300.0	1	14142347602C	05/30/2014 14:01	Clinton M Wilson	1
00224	1b Anions by 300.0-Chloride	EPA 300.0	1	14142347602C	05/30/2014 14:01	Clinton M Wilson	1
01504	1b Anions by 300.0-Fluoride	EPA 300.0	1	14142347602C	05/30/2014 14:01	Clinton M Wilson	1
00368	1b Anions by 300.0-Nitrate	EPA 300.0	1	14142347602C	05/23/2014 04:31	Sandra J Miller	1
01506	1b Anions by 300.0-Nitrite	EPA 300.0	1	14142347602C	05/23/2014 04:31	Sandra J Miller	1

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Sample Description: FB-052114 Water
SSFL Phase 3

LL Sample # WW 7472961
LL Group # 1476280
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 14:00 by PH

Submitted: 05/22/2014 09:25
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FB521 SDG#: PH191-01FB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07322	1b Anions by 300.0-Orthophosph	EPA 300.0	1	14142347602C	05/30/2014 14:01	Clinton M Wilson	1
00228	1b Anions by 300.0-Sulfate	EPA 300.0	1	14142347602C	05/30/2014 14:01	Clinton M Wilson	1
00217	26b Total Kjeldahl Nitrogen	EPA 351.2	1	14150108101A	06/02/2014 12:05	Joseph E McKenzie	1
00345	1b Phosphate	EPA 365.1	1	14148110101A	05/30/2014 18:30	Venia B McFadden	1
06165	27b Total Nitrogen	SM 4500 N-1999	1	14150108101A	06/02/2014 12:05	Joseph E McKenzie	1
00273	25b Total Organic Carbon 415.1	SM 5310 C-2000	1	14147049502A	05/27/2014 05:07	James S Mathiot	1
06467	2b Chromium VI by EPA 7199	SW-846 7199	1	14142987301A	05/22/2014 11:29	Clinton M Wilson	1
01460	Total Kjeldahl Nitrogen Digest	EPA 351.2	1	14150108101A	05/30/2014 10:15	Nancy J Shoop	1
08264	Total Phos as PO4 Prep (water)	EPA 365.1	1	14148110101A	05/28/2014 13:00	Nancy J Shoop	1
12152	28b pH (9040B and 9040C)	SW-846 9040C	1	14147002102A	05/27/2014 17:20	Michele L Graham	1

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476280
Reported: 06/13/14 at 04:52 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: E141442AA	Sample number(s): 7472961								
1,4-Dioxane	2.0 U	2.0	0.5	ug/l	107	111	80-123	4	30
Batch number: Y141471AA	Sample number(s): 7472961								
Acetone	20 U	20.	6	ug/l	78	84	43-149	7	30
Acrolein	100 U	100.	40	ug/l	94	89	52-129	4	30
Acrylonitrile	20 U	20.	4	ug/l	77	83	62-120	7	30
t-Amyl methyl ether	5 U	5.	0.5	ug/l	98	99	75-120	1	30
Benzene	5 U	5.	0.5	ug/l	104	105	78-120	1	30
Bromobenzene	5 U	5.	1	ug/l	103	103	80-120	0	30
Bromochloromethane	5 U	5.	1	ug/l	102	103	80-121	0	30
Bromodichloromethane	5 U	5.	0.5	ug/l	99	99	73-120	0	30
Bromoform	5 U	5.	0.5	ug/l	86	85	61-120	1	30
Bromomethane	5 U	5.	0.5	ug/l	104	105	58-120	1	30
2-Butanone	10 U	10.	3	ug/l	72	79	54-133	9	30
t-Butyl alcohol	50 U	50.	5	ug/l	97	103	75-120	7	30
n-Butylbenzene	5 U	5.	1	ug/l	100	100	68-120	0	30
sec-Butylbenzene	5 U	5.	1	ug/l	102	104	80-120	2	30
tert-Butylbenzene	5 U	5.	1	ug/l	100	103	73-120	3	30
Carbon Disulfide	5 U	5.	1	ug/l	69	68	58-126	2	30
Carbon Tetrachloride	5 U	5.	0.5	ug/l	107	109	74-130	2	30
Chlorobenzene	5 U	5.	0.5	ug/l	104	103	80-120	1	30
Chloroethane	5 U	5.	0.5	ug/l	89	89	56-120	1	30
2-Chloroethyl Vinyl Ether	10 U	10.	2	ug/l	102	103	54-126	1	30
Chloroform	5 U	5.	0.5	ug/l	106	107	80-122	1	30
1-Chlorohexane	5 U	5.	1	ug/l	104	105	80-120	1	30
Chloromethane	5 U	5.	0.5	ug/l	118	120	63-120	2	30
2-Chlorotoluene	5 U	5.	1	ug/l	100	101	80-120	1	30
4-Chlorotoluene	5 U	5.	1	ug/l	100	101	80-120	1	30
Chlorotrifluoroethene	5 U	5.	2	ug/l	46*	48	47-120	5	30
1,2-Dibromo-3-chloropropane	5 U	5.	2	ug/l	75	83	56-120	10	30
Dibromochloromethane	5 U	5.	0.5	ug/l	101	98	72-120	3	30
1,2-Dibromoethane	5 U	5.	0.5	ug/l	100	101	76-120	1	30
Dibromomethane	5 U	5.	0.5	ug/l	98	99	80-120	1	30
1,2-Dichlorobenzene	5 U	5.	1	ug/l	101	102	80-120	1	30
1,3-Dichlorobenzene	5 U	5.	1	ug/l	101	102	80-120	1	30
1,4-Dichlorobenzene	5 U	5.	1	ug/l	103	103	80-120	1	30
Dichlorodifluoromethane	5 U	5.	0.5	ug/l	115	116	48-132	1	30
1,1-Dichloroethane	5 U	5.	0.5	ug/l	98	99	80-120	1	30
1,2-Dichloroethane	5 U	5.	0.5	ug/l	106	106	65-135	0	30
1,1-Dichloroethene	5 U	5.	0.5	ug/l	112	113	76-124	1	30
cis-1,2-Dichloroethene	5 U	5.	0.5	ug/l	105	106	80-120	1	30
trans-1,2-Dichloroethene	5 U	5.	0.5	ug/l	116	118	80-120	2	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476280
Reported: 06/13/14 at 04:52 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,2-Dichloropropane	5	U	5.	0.5	ug/l	101	101	80-120	0	30
1,3-Dichloropropane	5	U	5.	0.5	ug/l	99	99	80-120	0	30
2,2-Dichloropropane	5	U	5.	0.5	ug/l	104	104	67-124	1	30
1,1-Dichloropropene	5	U	5.	1	ug/l	110	110	80-120	1	30
cis-1,3-Dichloropropene	5	U	5.	0.5	ug/l	96	96	80-120	0	30
trans-1,3-Dichloropropene	5	U	5.	0.5	ug/l	95	95	76-120	0	30
Ethyl t-butyl ether	5	U	5.	0.5	ug/l	97	98	74-120	1	30
Ethylbenzene	5	U	5.	0.5	ug/l	102	103	79-120	0	30
Freon 113	5	U	5.	2	ug/l	101	100	67-127	0	30
Freon 133a	5	U	5.	2	ug/l	79	82	46-152	3	30
Hexachlorobutadiene	5	U	5.	2	ug/l	100	98	51-125	2	30
2-Hexanone	10	U	10.	3	ug/l	74	80	44-126	8	30
di-Isopropyl ether	5	U	5.	0.5	ug/l	98	98	65-120	1	30
Isopropylbenzene	5	U	5.	1	ug/l	104	104	77-120	0	30
p-Isopropyltoluene	5	U	5.	1	ug/l	100	101	80-120	1	30
Methyl Iodide	5	U	5.	0.5	ug/l	105	106	75-128	1	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/l	108	108	75-120	0	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	78	84	51-124	6	30
Methylene Chloride	5	U	5.	2	ug/l	116	116	80-120	0	30
n-Propylbenzene	5	U	5.	1	ug/l	102	102	80-120	0	30
Styrene	5	U	5.	1	ug/l	104	103	80-120	0	30
1,1,1,2-Tetrachloroethane	5	U	5.	0.5	ug/l	103	101	80-120	2	30
1,1,2,2-Tetrachloroethane	5	U	5.	0.5	ug/l	89	92	70-120	4	30
Tetrachloroethene	5	U	5.	0.5	ug/l	107	108	80-120	1	30
Toluene	5	U	5.	0.5	ug/l	104	104	80-120	0	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	102	104	58-126	2	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	103	104	65-120	1	30
1,1,1-Trichloroethane	5	U	5.	0.5	ug/l	96	94	66-126	1	30
1,1,2-Trichloroethane	5	U	5.	0.5	ug/l	98	100	80-120	2	30
Trichloroethene	5	U	5.	0.5	ug/l	106	109	80-120	3	30
Trichlorofluoromethane	5	U	5.	0.5	ug/l	117	115	65-130	2	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	89	94	76-120	5	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	103	103	74-120	0	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	102	104	74-120	1	30
Vinyl Acetate	10	U	10.	2	ug/l	74	74	56-135	0	30
Vinyl Chloride	5	U	5.	0.5	ug/l	111	112	63-120	1	30
m+p-Xylene	5	U	5.	0.5	ug/l	102	102	80-120	0	30
o-Xylene	5	U	5.	0.5	ug/l	102	102	80-120	0	30
Batch number: 14144WAN026	Sample number(s): 7472961									
Acenaphthene	0.050	U	0.050	0.010	ug/l	101	107	83-119	6	30
Acenaphthylene	0.050	U	0.050	0.010	ug/l	95	101	81-130	6	30
Anthracene	0.050	U	0.050	0.010	ug/l	96	103	83-125	7	30
Benzo(a)anthracene	0.050	U	0.050	0.010	ug/l	93	100	79-122	6	30
Benzo(a)pyrene	0.050	U	0.050	0.010	ug/l	94	100	80-121	6	30
Benzo(b)fluoranthene	0.050	U	0.050	0.010	ug/l	102	108	79-136	6	30
Benzo(e)pyrene	0.050	U	0.050	0.010	ug/l	96	103	67-118	7	30
Benzo(g,h,i)perylene	0.050	U	0.050	0.010	ug/l	91	97	72-132	7	30
Benzo(k)fluoranthene	0.050	U	0.050	0.010	ug/l	96	100	81-131	5	30
Butylbenzylphthalate	1.0	U	1.0	0.050	ug/l	90	96	40-138	7	30
Di-n-butylphthalate	1.0	U	1.0	0.050	ug/l	100	100	64-141	0	30
Chrysene	0.050	U	0.050	0.010	ug/l	97	101	84-118	4	30
Dibenz(a,h)anthracene	0.050	U	0.050	0.010	ug/l	81	89	66-133	10	30
Diethylphthalate	1.0	U	1.0	0.050	ug/l	96	103	64-137	6	30
Dimethylphthalate	1.0	U	1.0	0.050	ug/l	94	100	23-139	7	30
Bis(2-Ethylhexyl)phthalate	0.056	J	1.0	0.050	ug/l	160*	72	70-143	77*	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476280
Reported: 06/13/14 at 04:52 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Fluoranthene	0.050	U	0.050	0.010	ug/l	89	94	84-124	6	30
Fluorene	0.050	U	0.050	0.010	ug/l	90	96	82-119	6	30
Indeno(1,2,3-cd)pyrene	0.050	U	0.050	0.010	ug/l	85	93	68-132	8	30
1-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	84*	89	86-130	5	30
2-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	83	87	81-131	5	30
Morpholine	20	U	20.	20	ug/l					
Naphthalene	0.050	U	0.050	0.030	ug/l	88	93	82-122	5	30
N-Nitrosodimethylamine	0.050	U	0.050	0.010	ug/l	62	68	56-96	9	30
Di-n-octylphthalate	1.0	U	1.0	0.050	ug/l	59	63	57-145	6	30
Phenanthrene	0.050	U	0.050	0.030	ug/l	92	98	83-116	6	30
Pyrene	0.050	U	0.050	0.010	ug/l	100	107	78-125	7	30
Batch number: 14144WAO026	Sample number(s): 7472961									
Acenaphthene	0.5	U	0.5	0.1	ug/l	98	97	80-112	0	30
Acenaphthylene	0.5	U	0.5	0.1	ug/l	104	104	84-125	0	30
Aniline	1	U	1.	0.5	ug/l	60	58	43-94	4	30
Anthracene	0.5	U	0.5	0.1	ug/l	99	99	82-116	0	30
Benzidine	60	U	60.	20	ug/l	44	43	20-94	4	30
Benzo(a)anthracene	0.5	U	0.5	0.1	ug/l	100	103	81-126	3	30
Benzo(a)pyrene	0.5	U	0.5	0.1	ug/l	104	102	82-116	2	30
Benzo(b)fluoranthene	0.5	U	0.5	0.1	ug/l	107	106	82-121	1	30
Benzo(g,h,i)perylene	0.5	U	0.5	0.1	ug/l	106	104	76-128	1	30
Benzo(k)fluoranthene	0.5	U	0.5	0.1	ug/l	101	99	81-122	1	30
Benzoic acid	15	U	15.	6	ug/l	37	42	10-97	14	30
Benzyl alcohol	15	U	15.	10	ug/l	80	81	66-112	1	30
1,1'-Biphenyl	1	U	1.	0.5	ug/l	96	97	78-109	1	30
4-Bromophenyl-phenylether	1	U	1.	0.5	ug/l	93	94	82-118	1	30
Butylbenzylphthalate	5	U	5.	2	ug/l	91	95	79-119	4	30
Di-n-butylphthalate	5	U	5.	2	ug/l	93	94	80-119	1	30
Carbazole	1	U	1.	0.5	ug/l	97	96	84-117	0	30
4-Chloro-3-methylphenol	1	U	1.	0.5	ug/l	88	87	80-123	1	30
4-Chloroaniline	1	U	1.	0.5	ug/l	78	75	55-113	4	30
bis(2-Chloroethoxy)methane	1	U	1.	0.5	ug/l	87	86	77-115	2	30
bis(2-Chloroethyl)ether	1	U	1.	0.5	ug/l	81	81	78-112	0	30
bis(2-Chloroisopropyl)ether	1	U	1.	0.5	ug/l	79	78	56-119	1	30
2-Chloronaphthalene	1	U	1.	0.4	ug/l	92	94	71-120	2	30
2-Chlorophenol	1	U	1.	0.5	ug/l	79	79	76-111	1	30
4-Chlorophenyl-phenylether	1	U	1.	0.5	ug/l	101	102	77-114	1	30
Chrysene	0.5	U	0.5	0.1	ug/l	103	105	81-120	2	30
Dibenz(a,h)anthracene	0.5	U	0.5	0.1	ug/l	107	106	83-124	1	30
Dibenzofuran	1	U	1.	0.5	ug/l	96	97	81-110	1	30
1,2-Dichlorobenzene	1	U	1.	0.5	ug/l	90	90	69-107	0	30
1,3-Dichlorobenzene	1	U	1.	0.5	ug/l	85	84	69-107	1	30
1,4-Dichlorobenzene	1	U	1.	0.5	ug/l	87	86	66-111	1	30
3,3'-Dichlorobenzidine	5	U	5.	2	ug/l	60	62	47-108	3	30
2,4-Dichlorophenol	1	U	1.	0.5	ug/l	92	89	84-119	4	30
2,6-Dichlorophenol	1	U	1.	0.5	ug/l	84	105	80-116	22	30
Diethylphthalate	5	U	5.	2	ug/l	96	96	70-118	0	30
2,4-Dimethylphenol	1	U	1.	0.5	ug/l	85	83	81-114	2	30
3,5-Dimethylphenol	10	U	10.	3	ug/l					
Dimethylphthalate	5	U	5.	2	ug/l	91	91	43-128	1	30
4,6-Dinitro-2-methylphenol	15	U	15.	5	ug/l	76	85	56-145	11	30
2,4-Dinitrophenol	30	U	30.	10	ug/l	59	67	32-148	13	30
1,2-Diphenylhydrazine	1	U	1.	0.5	ug/l	81	82	74-124	1	30
bis(2-Ethylhexyl)phthalate	5	U	5.	2	ug/l	91	94	78-124	4	30
Fluoranthene	0.5	U	0.5	0.1	ug/l	102	102	82-121	0	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476280
Reported: 06/13/14 at 04:52 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Fluorene	0.5	U	0.5	0.1	ug/l	99	100	80-117	1	30
Hexachlorobenzene	0.5	U	0.5	0.1	ug/l	86	88	80-119	2	30
Hexachlorobutadiene	1	U	1.	0.5	ug/l	102	98	61-120	4	30
Hexachlorocyclopentadiene	15	U	15.	5	ug/l	64	65	28-133	2	30
Hexachloroethane	5	U	5.	1	ug/l	78	77	55-109	1	30
Indeno(1,2,3-cd)pyrene	0.5	U	0.5	0.1	ug/l	103	102	80-126	1	30
Isophorone	1	U	1.	0.5	ug/l	95	93	82-119	2	30
1-Methylnaphthalene	0.5	U	0.5	0.1	ug/l	94	93	83-116	1	30
2-Methylnaphthalene	0.5	U	0.5	0.1	ug/l	93	92	75-106	1	30
2-Methylphenol	1	U	1.	0.5	ug/l	79	79	72-111	0	30
4-Methylphenol	1	U	1.	0.5	ug/l	75	74	63-110	1	30
Naphthalene	0.5	U	0.5	0.1	ug/l	93	93	75-108	0	30
NDPA as diphenylamine	5	U	5.	2	ug/l	85	86	70-130	1	30
2-Nitroaniline	1	U	1.	0.5	ug/l	95	99	84-122	5	30
3-Nitroaniline	1	U	1.	0.5	ug/l	82	82	70-118	0	30
4-Nitroaniline	1	U	1.	0.5	ug/l	79	79	66-110	1	30
Nitrobenzene	1	U	1.	0.5	ug/l	90	89	77-119	1	30
2-Nitrophenol	1	U	1.	0.5	ug/l	82	88	81-128	7	30
4-Nitrophenol	30	U	30.	10	ug/l	44	45	25-95	2	30
N-Nitroso-di-n-propylamine	1	U	1.	0.5	ug/l	82	83	71-117	1	30
N-Nitrosodimethylamine	5	U	5.	2	ug/l	52	54	38-98	3	30
N-Nitrosodiphenylamine	1	U	1.	0.5	ug/l	85	86	80-115	1	30
Di-n-octylphthalate	5	U	5.	2	ug/l	105	105	78-129	0	30
Pentachlorophenol	5	U	5.	1	ug/l	83	86	54-124	3	30
Phenanthrene	0.5	U	0.5	0.1	ug/l	94	97	81-114	3	30
Phenol	1	U	1.	0.5	ug/l	45	46	31-79	3	30
Pyrene	0.5	U	0.5	0.1	ug/l	95	96	81-112	2	30
Pyridine	5	U	5.	2	ug/l	51	48	22-96	6	30
1,2,4-Trichlorobenzene	1	U	1.	0.5	ug/l	101	99	77-111	2	30
2,4,5-Trichlorophenol	1	U	1.	0.5	ug/l	95	95	81-121	0	30
2,4,6-Trichlorophenol	1	U	1.	0.5	ug/l	93	95	84-119	2	30
Batch number: 14142A94A	Sample number(s): 7472961									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	109	111	80-133	2	30
Batch number: 141430009A	Sample number(s): 7472961									
Formaldehyde	50	U	50.	30	ug/l	98	100	67-117	2	30
Batch number: 141470007A	Sample number(s): 7472961									
4-Amino-2,6-Dinitrotoluene	0.60	U	0.60	0.30	ug/l	102	103	80-148	1	30
2-Amino-4,6-Dinitrotoluene	0.60	U	0.60	0.20	ug/l	90	90	77-115	1	30
2,6-Diamino-4-nitrotoluene	0.60	U	0.60	0.20	ug/l	83	83	73-121	0	30
2,4-Diamino-6-nitrotoluene	0.60	U	0.60	0.20	ug/l	82	82	72-119	0	30
1,3-Dinitrobenzene	0.60	U	0.60	0.20	ug/l	95	97	85-117	2	30
2,4-Dinitrotoluene	0.60	U	0.60	0.20	ug/l	96	96	83-115	0	30
2,6-Dinitrotoluene	0.60	U	0.60	0.20	ug/l	95	96	77-145	1	30
HMX	2.0	U	2.0	0.65	ug/l	99	100	67-115	1	30
Nitrobenzene	0.60	U	0.60	0.20	ug/l	92	93	80-115	1	30
Nitroglycerin	15	U	15.	5.2	ug/l	90	92	81-115	1	30
2-Nitrotoluene	0.60	U	0.60	0.20	ug/l	94	96	74-115	2	30
3-Nitrotoluene	1.2	U	1.2	0.40	ug/l	102	105	83-118	3	30
4-Nitrotoluene	1.2	U	1.2	0.60	ug/l	93	94	76-120	2	30
PETN	18	U	18.	6.0	ug/l	100	106	81-115	5	30
RDX	0.60	U	0.60	0.20	ug/l	89	92	76-120	4	30
Tetryl	0.60	U	0.60	0.40	ug/l	71	73	47-150	3	30
1,3,5-Trinitrobenzene	0.60	U	0.60	0.20	ug/l	111	106	83-115	4	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476280
Reported: 06/13/14 at 04:52 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
2,4,6-Trinitrotoluene	0.60	U	0.60	0.20	ug/l	92	93	84-117	1	30
Batch number: 141470029A	Sample number(s): 7472961									
2,4-D	0.50	U	0.50	0.16	ug/l	138	135	68-155	2	30
Dalapon	1.3	U	1.3	0.25	ug/l	82	77	27-127	6	30
2,4-DB	1.0	U	1.0	0.30	ug/l	124	122	60-172	1	30
Dicamba	0.30	U	0.30	0.080	ug/l	135	132	65-142	2	30
Dinoseb	0.50	U	0.50	0.12	ug/l	76	74	16-163	4	30
2,4-DP (Dichlorprop)	0.50	U	0.50	0.16	ug/l	163	165	91-181	1	30
MCPA	200 U		200.	50	ug/l	119	116	65-128	3	30
MCPP	200 U		200.	50	ug/l	132	129	61-145	2	30
2,4,5-T	0.050	U	0.050	0.015	ug/l	139	136	67-163	2	30
2,4,5-TP	0.050	U	0.050	0.010	ug/l	132	128	71-162	3	30
Batch number: 141470003A	Sample number(s): 7472961									
6b Perchlorate (Method 6850)	1.0	U	1.0	0.20	ug/l	96		85-115		
Batch number: 141470014A	Sample number(s): 7472961									
Aldrin	0.0080	U	0.0080	0.0016	ug/l	77	83	37-137	8	30
Alpha BHC	0.0080	U	0.0080	0.0024	ug/l	93	96	44-148	3	30
Beta BHC	0.0080	U	0.0080	0.0027	ug/l	97	98	48-147	1	30
Gamma BHC - Lindane	0.0080	U	0.0080	0.0016	ug/l	95	96	44-146	0	30
Chlordane	0.40	U	0.40	0.13	ug/l					
p,p-DDD	0.016	U	0.016	0.0040	ug/l	96	98	44-152	2	30
p,p-DDE	0.016	U	0.016	0.0040	ug/l	92	95	44-146	4	30
p,p-DDT	0.016	U	0.016	0.0042	ug/l	85	90	44-146	5	30
Delta BHC	0.0080	U	0.0080	0.0027	ug/l	97	100	47-146	3	30
Dieldrin	0.016	U	0.016	0.0042	ug/l	94	93	45-146	1	30
Endosulfan I	0.0080	U	0.0080	0.0034	ug/l	87	87	39-140	0	30
Endosulfan II	0.016	U	0.016	0.012	ug/l	95	97	45-139	2	30
Endosulfan Sulfate	0.016	U	0.016	0.0046	ug/l	97	99	48-139	3	30
Endrin	0.016	U	0.016	0.0065	ug/l	91	91	43-139	1	30
Endrin Aldehyde	0.080	U	0.080	0.016	ug/l	92	94	43-144	2	20
Endrin Ketone	0.016	U	0.016	0.0040	ug/l	98	98	42-152	1	30
Heptachlor	0.0080	U	0.0080	0.0016	ug/l	83	87	36-146	4	30
Heptachlor Epoxide	0.0080	U	0.0080	0.0018	ug/l	95	94	49-142	1	30
Methoxychlor	0.080	U	0.080	0.024	ug/l	84	87	40-150	3	30
Mirex	0.040	U	0.040	0.0080	ug/l					
Toxaphene	0.80	U	0.80	0.24	ug/l					
Batch number: 141480020A	Sample number(s): 7472961									
Aroclor 5432	0.40	U	0.40	0.080	ug/l					
Aroclor 5442	0.40	U	0.40	0.080	ug/l	76	69	34-115	10	30
Aroclor 5460	0.40	U	0.40	0.088	ug/l					
PCB-1016	0.40	U	0.40	0.080	ug/l	99	99	60-117	0	30
PCB-1221	0.40	U	0.40	0.080	ug/l					
PCB-1232	0.40	U	0.40	0.16	ug/l					
PCB-1242	0.40	U	0.40	0.080	ug/l					
PCB-1248	0.40	U	0.40	0.080	ug/l					
PCB-1254	0.40	U	0.40	0.080	ug/l					
PCB-1260	0.40	U	0.40	0.12	ug/l	106	106	67-128	0	30
PCB-1262	0.40	U	0.40	0.16	ug/l					
PCB-1268	0.40	U	0.40	0.13	ug/l					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476280
Reported: 06/13/14 at 04:52 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 141480034A	Sample number(s): 7472961									
Diethylene glycol	10	U	10.	8.0	mg/l	94		46-143		
Ethylene glycol	10	U	10.	8.0	mg/l	94		63-128		
Propylene glycol	10	U	10.	8.0	mg/l	99		62-136		
Triethylene glycol	10	U	10.	8.0	mg/l	92		31-136		
Batch number: 141440024A	Sample number(s): 7472961									
EFH C12-C14 w/ SiGel	0.10	U	0.10	0.050	mg/l	75	74	67-109	2	30
EFH C15-C20 w/ SiGel	0.10	U	0.10	0.050	mg/l	80	80	71-119	0	30
EFH C21-C30 w/ SiGel	0.10	U	0.10	0.050	mg/l	80	80	75-117	0	30
EFH C30-C40 w/ SiGel	0.50	U	0.50	0.10	mg/l	79	78	44-134	2	30
EFH C8-C11 w/ SiGel	0.10	U	0.10	0.050	mg/l	58	56	55-86	3	30
Batch number: 141440025A	Sample number(s): 7472961									
EFH (C12-C14)	0.10	U	0.10	0.050	mg/l	85	85	67-109	0	30
EFH (C15-C20)	0.10	U	0.10	0.050	mg/l	90	91	71-119	1	30
EFH (C21-C30)	0.10	U	0.10	0.050	mg/l	90	94	75-117	4	30
EFH (C30 - C40)	0.50	U	0.50	0.10	mg/l	82	84	44-134	3	30
EFH (C8-C11)	0.10	U	0.10	0.050	mg/l	71	70	55-86	1	30
Batch number: 141470010A	Sample number(s): 7472961									
m-Terphenyl	0.0050	U	0.0050	0.0020	mg/l	89	88	61-108	1	20
o-Terphenyl	0.0050	U	0.0050	0.0020	mg/l	88	87	75-125	1	20
p-Terphenyl	0.0050	U	0.0050	0.0020	mg/l	83	83	63-110	1	20
Batch number: 141475713004	Sample number(s): 7472961									
3b Mercury 7470A	0.00020	U	0.00020	0.00006 0	mg/l	105	97	90-115	8	20
Batch number: 141480635002	Sample number(s): 7472961									
Aluminum	0.400	U	0.400	0.0828	mg/l	105	105	90-112	0	20
Antimony	0.0400	U	0.0400	0.0053	mg/l	97	96	88-111	1	20
Arsenic	0.0400	U	0.0400	0.0068	mg/l	105	105	90-113	0	20
Barium	0.0100	U	0.0100	0.00033	mg/l	107	104	90-110	3	20
Beryllium	0.0100	U	0.0100	0.00067	mg/l	102	100	90-111	2	20
Boron	0.100	U	0.100	0.0084	mg/l	98	97	90-110	1	20
Cadmium	0.0100	U	0.0100	0.00076	mg/l	107	106	90-112	2	20
Calcium	0.400	U	0.400	0.0334	mg/l	105	103	90-112	2	20
Chromium	0.0300	U	0.0300	0.0016	mg/l	104	103	90-110	1	20
Cobalt	0.0100	U	0.0100	0.0013	mg/l	108	107	90-110	1	20
Copper	0.0200	U	0.0200	0.0027	mg/l	107	106	90-112	1	20
Iron	0.400	U	0.400	0.0430	mg/l	105	103	90-112	2	20
Lead	0.0300	U	0.0300	0.0047	mg/l	110	108	88-116	2	20
Lithium	0.0400	U	0.0400	0.0047	mg/l	106	104	90-110	1	20
Magnesium	0.200	U	0.200	0.0167	mg/l	104	102	89-110	1	20
Manganese	0.0100	U	0.0100	0.00083	mg/l	108	106	90-110	2	20
Molybdenum	0.0200	U	0.0200	0.0017	mg/l	105	104	90-110	1	20
Nickel	0.0200	U	0.0200	0.0015	mg/l	111	109	90-111	2	20
Phosphorus	0.200	U	0.200	0.0418	mg/l	103	103	90-110	1	20
Potassium	1.00	U	1.00	0.0980	mg/l	103	102	90-110	1	20
Sodium	2.00	U	2.00	0.167	mg/l	102	101	87-114	1	20
Tin	0.0400	U	0.0400	0.0029	mg/l	102	101	90-110	1	20
Titanium	0.0200	U	0.0200	0.0017	mg/l	106	104	90-113	2	20
Vanadium	0.0100	U	0.0100	0.0020	mg/l	108	106	90-110	2	20
Zinc	0.0400	U	0.0400	0.0020	mg/l	105	103	90-110	2	20
Zirconium	0.0110	J	0.100	0.0084	mg/l	104	103	90-110	1	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476280
Reported: 06/13/14 at 04:52 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 141480639002A	Sample number(s): 7472961									
Silver	0.0010	U	0.0010	0.00011	mg/l	112	104	90-115	8	20
Strontium	0.0020	U	0.0020	0.00034	mg/l	106	103	90-110	3	20
Thallium	0.0010	U	0.0010	0.00015	mg/l	108	100	90-115	7	20
Batch number: 141480639002B	Sample number(s): 7472961									
Selenium	0.0040	U	0.0040	0.00050	mg/l	103	100	90-114	3	20
Batch number: 14142347602C	Sample number(s): 7472961									
1b Anions by 300.0-Bromide	0.50	U	0.50	0.40	mg/l	96	96	90-110	0	20
1b Anions by 300.0-Chloride	0.40	U	0.40	0.20	mg/l	98	98	90-110	0	20
1b Anions by 300.0-Fluoride	0.10	U	0.10	0.080	mg/l	98	97	90-110	1	20
1b Anions by 300.0-Nitrate	0.10	U	0.10	0.050	mg/l	98	98	90-110	0	20
1b Anions by 300.0-Nitrite	0.10	U	0.10	0.080	mg/l	95	95	90-110	0	20
1b Anions by 300.0-Orthophosph	0.50	U	0.50	0.20	mg/l	98	97	90-110	1	20
1b Anions by 300.0-Sulfate	1.0	U	1.0	0.30	mg/l	98	97	90-110	0	20
Batch number: 14142987301A	Sample number(s): 7472961									
2b Chromium VI by EPA 7199	10.0	U	10.0	5.0	ug/l	103	104	90-110	1	20
Batch number: 14147049502A	Sample number(s): 7472961									
25b Total Organic Carbon 415.1	1.0	U	1.0	0.50	mg/l	110		91-113		
Batch number: 14148110101A	Sample number(s): 7472961									
1b Phosphate	0.31	U	0.31	0.25	mg/l	91		90-110		
Batch number: 14150108101A	Sample number(s): 7472961									
26b Total Kjeldahl Nitrogen	1.0	U	1.0	0.50	mg/l	102		90-110		
Batch number: 14147002102A	Sample number(s): 7472961									
28b pH (9040B and 9040C)						100		90-110		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14148001	Sample number(s): 7472961									
2378-TCDD	2.00	U	2.00	0.283	pg/l	99		60-150		
12378-PeCDD	10.0	U	10.0	0.243	pg/l	97		60-150		
123478-HxCDD	0.213	J	10.0	0.136	pg/l	97		60-150		
123678-HxCDD	0.251	J	10.0	0.140	pg/l	95		60-150		
123789-HxCDD	0.159	J	10.0	0.128	pg/l	98		60-150		
1234678-HpCDD	0.923	J	10.0	0.166	pg/l	95		60-150		
OCDD	7.17	J	20.0	0.260	pg/l	95		60-150		
2378-TCDF	2.00	U	2.00	0.184	pg/l	96		60-150		
12378-PeCDF	0.603	J	10.0	0.115	pg/l	96		60-150		
23478-PeCDF	10.0	U	10.0	0.111	pg/l	98		60-150		
123478-HxCDF	0.316	J	10.0	0.103	pg/l	101		60-150		
123678-HxCDF	10.0	U	10.0	0.0917	pg/l	99		60-150		
123789-HxCDF	10.0	U	10.0	0.0931	pg/l	99		60-150		
234678-HxCDF	0.178	J	10.0	0.0905	pg/l	97		60-150		
1234678-HpCDF	0.283	J	10.0	0.0667	pg/l	98		60-150		
1234789-HpCDF	0.365	J	10.0	0.0848	pg/l	97		60-150		
OCDF	0.452	J	20.0	0.187	pg/l	96		60-150		
TEQ WHO 2005 - EDLx0.0	0.0648				pg/l					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476280
Reported: 06/13/14 at 04:52 PM

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc		DUP Conc		DUP RPD	Dup RPD Max
Batch number: 141470003A	Sample number(s): 7472961 UNSPK: 7472961										
6b Perchlorate (Method 6850)	96	92	80-120	4	20						
Batch number: 141480034A	Sample number(s): 7472961 UNSPK: 7472961										
Diethylene glycol	102	113	50-166	10	20						
Ethylene glycol	88	115	50-155	26*	20						
Propylene glycol	92	123	54-145	29*	20						
Triethylene glycol	99	112	50-133	12	20						
Batch number: 14147049502A	Sample number(s): 7472961 UNSPK: P473778 BKG: P473778										
25b Total Organic Carbon 415.1	118		63-142			0.80	J	0.62	J	26* (1)	4
Batch number: 14148110101A	Sample number(s): 7472961 UNSPK: P472428 BKG: P472428										
1b Phosphate	103		90-110			0.27	J	0.33		22* (1)	4
Batch number: 14150108101A	Sample number(s): 7472961 UNSPK: P471561 BKG: P471561										
26b Total Kjeldahl Nitrogen	105		90-110			1.0	U	1.0	U	0 (1)	20
Batch number: 14147002102A	Sample number(s): 7472961 BKG: P474252										
28b pH (9040B and 9040C)						5.8		5.8		0	3

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 13b 1,4-Dioxane by 8260B SIM
Batch number: E141442AA

	Toluene-d8
7472961	92
Blank	94
LCS	94
LCSD	94
Limits:	80-120

Analysis Name: 12b Volatile Organics EPA8260B

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476280
Reported: 06/13/14 at 04:52 PM

Surrogate Quality Control

Batch number: Y141471AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7472961	102	102	98	96
Blank	101	100	99	96
LCS	101	99	100	100
LCSD	101	101	100	99
Limits:	86-118	80-120	88-110	86-115

Analysis Name: 7b SVOC SIM EPA 8270D
Batch number: 14144WAN026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7472961	85	97	75
Blank	80	92	72
LCS	92	106	84
LCSD	98	114	89
Limits:	59-128	62-141	70-134

Analysis Name: 8b SVOCs by EPA 8270D
Batch number: 14144WAO026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
7472961	39	61	79	88	98	96
Blank	38	56	71	82	95	89
LCS	39	55	75	84	95	57
LCSD	40	54	77	86	95	50
Limits:	20-110	20-110	30-110	40-130	45-130	45-130

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14142A94A

	Trifluorotoluene-F
7472961	87
Blank	86
LCS	97
LCSD	94
Limits:	63-135

Analysis Name: 19b Formaldehyde 8315A
Batch number: 141430009A

	Butyraldehyde
7472961	94
Blank	93
LCS	95
LCSD	101
Limits:	36-155

Analysis Name: 18b Energetics by 8330A

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476280
Reported: 06/13/14 at 04:52 PM

Surrogate Quality Control

Batch number: 141470007A

	2-Nitro-m-xylene
7472961	110
Blank	116
LCS	114
LCSD	114
Limits:	80-146

Analysis Name: 22b Pesticides by EPA 8081B
Batch number: 141470014A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7472961	79	95
Blank	71	89
LCS	90	92
LCSD	89	94
Limits:	60-140	20-120

Analysis Name: 24b Herbicides by EPA 8151A
Batch number: 141470029A

	2,4-Dichlorophenylacetic acid
7472961	100
Blank	101
LCS	124
LCSD	119
Limits:	50-150

Analysis Name: 21b PCBs and PCTs 8082A
Batch number: 141480020A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7472961	108	82
Blank	120	97
LCS	114	88
LCSD	114	86
Limits:	45-120	45-120

Analysis Name: 10b TPH-DRO (w/Si Gel)
Batch number: 141440024A

	Chlorobenzene	Orthoterphenyl
7472961	70	76
Blank	82	91
LCS	68	74
LCSD	66	74
Limits:	45-126	69-119

Analysis Name: 10b TPH by EPA 8015B (DRO)

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476280
Reported: 06/13/14 at 04:52 PM

Surrogate Quality Control

Batch number: 141440025A

	Chlorobenzene	Orthoterphenyl
7472961	72	81
Blank	73	85
LCS	72	84
LCSD	72	84
Limits:	45-126	69-119

Analysis Name: 23b Terphenyls by 8015B
Batch number: 141470010A

	n-Triacontane-d62
7472961	102
Blank	105
LCS	104
LCSD	99
Limits:	36-160

Analysis Name: 20b Glycols by EPA 8015C
Batch number: 141480034A

	Tetramethylene glycol
7472961	94
Blank	87
LCS	106
MS	104
MSD	122
Limits:	58-141

Analysis Name: 17b Dioxin/Furan by EPA 1613B
Batch number: 14148001

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7472961	81	84	86	86	87	86
Blank	81	82	85	85	89	86
OPR	83	87	90	90	88	91
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7472961	81	82	88	88	85	86
Blank	73	79	83	81	81	84
OPR	87	83	88	88	87	90
Limits:	17-157	24-169	24-185	21-178	26-152	26-123

	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF
7472961	90	93	90	85	81
Blank	84	91	86	80	71
OPR	89	93	92	86	80

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476280
Reported: 06/13/14 at 04:52 PM

Surrogate Quality Control

Limits:	28-136	29-147	28-143	26-138	17-157

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SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/21/2014
CarrierName: FedEx
AirbillNo: 770058142099

A-13013
G-1476280
S-7472961

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140521-06
Cooler #: 4
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
FB-052114	5/21/14 14:00	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	X		X																															
FB-052114	5/21/14 14:00	WQ	None	6 - 250 mL Amber	10 day					X	X	X			X						X										X								
FB-052114	5/21/14 14:00	WQ	HCl	9 - 40 mL Vial	10 day																	X	X	X															
FB-052114	5/21/14 14:00	WQ	None	7 - 40 mL Vial	10 day												X									X			X							X			
FB-052114	5/21/14 14:00	WQ	None	3 - 250 mL Poly	10 day														X	X									X									
FB-052114	5/21/14 14:00	WQ	HCl	1 - 1 L Amber	10 day																							X										
FB-052114	5/21/14 14:00	WQ	H2SO4 pH<2	2 - 250 mL Poly	10 day																								X							X		
FB-052114	5/21/14 14:00	WQ	H3PO4 pH<2	2 - 40 mL Vial	10 day																																X	

Special Instructions: SVOCs = biphenyls only. TIC = morpholine only. Nitrates = anions = Cl2, SO4, NO3, NO2, Br2, Ortho-PO4, Fluoride, Phophate

Sampler: Pam Hartman

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
	05/21/2014	16:00									
										5/22/14	0925

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/21/2014
CarrierName: FedEx
AirbillNo: 770058142099

A-13013
G-147680
S-747296 1

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140521-05
Cooler #: 3
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
FB-052114	5/21/14 14:00	WQ	None	6 - 1 L Amber	10 day									X							X										X									
FB-052114	5/21/14 14:00	WQ	HCl	2 - 1 L Amber	10 day																				X														

Special Instructions: For all EFH, silica gel clean up required on half the extract. Analyze both the extracts for EFH.

Sampler: Pam Hartman

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[signature]	05/21/2014	16:00									
									[signature]	5/22/14	0925

G# 1476280

Natalie Luciano

From: Hartman, Pamela <HartmanPM@cdmsmith.com>
Sent: Friday, May 23, 2014 4:05 PM
To: Natalie Luciano; Mysel, Stefanie
Cc: Zakowski, Cherie; Burgesser, Todd
Subject: RE: PH191: FB - EFH/SVOC TIC

Natalie

Please just do all SVOCs and disregard the "Biphenyls only" comment.

Thanks!
Pam

Pamela Hartman
CDM Smith
523 West Sixth Street Suite 400
Los Angeles, CA 90014
714 900 0916 (Cell)

From: Natalie Luciano [NatalieLuciano@eurofinsUS.com]
Sent: Friday, May 23, 2014 12:28 PM
To: Mysel, Stefanie; Hartman, Pamela
Cc: Zakowski, Cherie; Burgesser, Todd
Subject: RE: PH191: FB - EFH/SVOC TIC

I have another question related to the comments on the COC. I don't see a list for "Biphenyls only" in our system files. Is this new? What compound list is needed?

Thanks,
Natalie Luciano
Senior Specialist, Environmental Client Services
Phone: +1 717-556-7258

Note that my email address has changed. It is now natalieluciano@eurofinsus.com. Please update my contact information.

-----Original Message-----
From: Natalie Luciano
Sent: Friday, May 23, 2014 3:18 PM
To: 'Mysel, Stefanie'; Hartman, Pamela
Cc: Zakowski, Cherie; Burgesser, Todd
Subject: RE: PH191: FB - EFH/SVOC TIC

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 15293

Group Number(s): 1476280

Client: CDM Smith

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/22/2014 9:25
Number of Packages:	4	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	9
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	No		
VOA Vial Headspace ≥ 6mm:	N/A		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Joseph Gruber (5200) at 11:54 on 05/22/2014

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT131	0.9	DT	Wet	Y	Bagged	N	N
2	DT131	0.8	DT	Wet	Y	Bagged	N	N
3	DT131	1.2	DT	Wet	Y	Bagged	N	N
4	DT131	1.0	DT	Wet	Y	Bagged	N	N

Sample Date/Time Discrepancy Details

Sample ID on COC	Date/Time on Label	Comments
FDG2-SL-584SA5D-SB-4. 0-5.0	5/21/2014 08:18	1 16 oz. container

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 05, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/22/2014
Group Number: 1476374
SDG: PH192
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB3-052114 Water	7473410
SL-686-SA6-TR-0.5 Grab Soil	7473411
SL-686-SA6-TR-5.0 Grab Soil	7473412
SL-686-SA6-TR-11.0 Grab Soil	7473413

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: TB3-052114 Water
SSFL Phase 3 Subarea 6

LL Sample # WW 7473410
LL Group # 1476374
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 08:00

Submitted: 05/22/2014 09:25
Reported: 06/05/2014 10:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB3-- SDG#: PH192-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14149A94A	05/29/2014 22:54	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14149A94A	05/29/2014 22:54	Miranda P Tillinghast	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-686-SA6-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7473411
LL Group # 1476374
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 08:02 by BC

Submitted: 05/22/2014 09:25
Reported: 06/05/2014 10:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

68605 SDG#: PH192-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	0.64	J	1.7	0.34	1
12969	Anthracene	120-12-7	1.8		1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	3.9		1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	3.7		1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	13		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	5.5	J	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	3.4		1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	3.9		1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	7.6	J	18	6.1	1
12969	Chrysene	218-01-9	14		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.0	J	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	28		18	6.1	1
12969	Fluoranthene	206-44-0	16		1.7	0.68	1
12969	Fluorene	86-73-7	0.88	J	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	3.0		1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.1	J	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.4	J	1.7	0.68	1
12969	Naphthalene	91-20-3	1.0	J	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	7.4		1.7	0.68	1
12969	Pyrene	129-00-0	11		1.7	0.68	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.1	1
13099	PCB-1232	11141-16-5	17	U	17	4.1	1
13099	PCB-1242	53469-21-9	17	U	17	4.1	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	34		17	4.4	1
13099	PCB-1260	11096-82-5	17	U	17	3.9	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	3.1	J	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	30		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	55		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.0	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-686-SA6-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7473411
LL Group # 1476374
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 08:02 by BC

Submitted: 05/22/2014 09:25
Reported: 06/05/2014 10:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

68605 SDG#: PH192-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
13197	EFH C21-C30 w/ SiGel	n.a.	12		5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	10		10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
	The reverse surrogate, capric acid, is present at <1%.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,000		40.5	7.31	1
06944	Antimony	7440-36-0	4.05	U	4.05	0.750	1
06935	Arsenic	7440-38-2	3.11	J	4.05	0.709	1
06946	Barium	7440-39-3	106		1.01	0.0334	1
06947	Beryllium	7440-41-7	0.502	J	1.01	0.0679	1
07914	Boron	7440-42-8	5.22	J	10.1	0.851	1
06949	Cadmium	7440-43-9	0.817	J	1.01	0.0770	1
01650	Calcium	7440-70-2	2,340		20.3	3.38	1
06951	Chromium	7440-47-3	19.6		3.04	0.162	1
06952	Cobalt	7440-48-4	5.15		1.01	0.100	1
06953	Copper	7440-50-8	14.4		2.03	0.294	1
01654	Iron	7439-89-6	17,500		40.5	3.67	1
06955	Lead	7439-92-1	23.4		3.04	0.507	1
01656	Lithium	7439-93-2	19.6		4.1	0.34	1
01657	Magnesium	7439-95-4	3,830		10.1	1.69	1
06958	Manganese	7439-96-5	389		1.01	0.0841	1
06960	Molybdenum	7439-98-7	0.396	J	2.03	0.172	1
06961	Nickel	7440-02-0	12.6		2.03	0.132	1
10145	Phosphorus	7723-14-0	398		10.1	2.93	1
01662	Potassium	7440-09-7	3,590		101	8.45	1
01667	Sodium	7440-23-5	71.2	J	101	16.9	1
06969	Tin	7440-31-5	2.50	J	10.1	0.223	1
06970	Titanium	7440-32-6	1,000		1.01	0.172	1
06971	Vanadium	7440-62-2	32.6		1.01	0.132	1
06972	Zinc	7440-66-6	146		4.05	0.203	1
10146	Zirconium	7440-67-7	3.10	J	5.07	0.851	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.157	J	0.405	0.101	2
06142	Silver	7440-22-4	0.133	J	0.203	0.0263	2
06144	Strontium	7440-24-6	20.5		0.405	0.0689	2
06145	Thallium	7440-28-0	0.268		0.203	0.0304	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0459		0.0167	0.0100	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.09		0.0100	0.0100	1
	The pH was measured in water at 21.9 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	

*=This limit was used in the evaluation of the final result

Sample Description: SL-686-SA6-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7473411
LL Group # 1476374
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 08:02 by BC

Submitted: 05/22/2014 09:25
Reported: 06/05/2014 10:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

68605 SDG#: PH192-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	2.3	0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

Sample Description: SL-686-SA6-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7473411
LL Group # 1476374
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 08:02 by BC

Submitted: 05/22/2014 09:25
Reported: 06/05/2014 10:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

68605 SDG#: PH192-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.424	J	0.982	0.0515	1
11031	12378-PeCDD	40321-76-4	4.34	J	4.91	0.0756	1
11031	123478-HxCDD	39227-28-6	7.00		4.91	0.0534	1
11031	123678-HxCDD	57653-85-7	15.2		4.91	0.0554	1
11031	123789-HxCDD	19408-74-3	14.7		4.91	0.0486	1
11031	1234678-HpCDD	35822-46-9	409	B	4.91	0.154	1
11031	OCDD	3268-87-9	8,840	EB	9.82	0.132	1
11650	2378-TCDF-Conf	51207-31-9	1.49	C	0.982	0.0816	1
11031	12378-PeCDF	57117-41-6	1.77	J	4.91	0.0376	1
11031	23478-PeCDF	57117-31-4	1.44	JB	4.91	0.0359	1
11031	123478-HxCDF	70648-26-9	1.56	JB	4.91	0.0571	1
11031	123678-HxCDF	57117-44-9	0.938	J	4.91	0.0525	1
11031	123789-HxCDF	72918-21-9	0.698	JB	4.91	0.0521	1
11031	234678-HxCDF	60851-34-5	1.25	J	4.91	0.0536	1
11031	1234678-HpCDF	67562-39-4	23.9	B	4.91	0.0354	1
11031	1234789-HpCDF	55673-89-7	1.28	JB	4.91	0.0471	1
11031	OCDF	39001-02-0	83.2	B	9.82	0.0325	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	16.6				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDF-Conf	70	24 - 169
13C12-2378-TCDD	85	25 - 164
13C12-12378-PeCDD	94	25 - 181
13C12-123478-HxCDD	87	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	93	28 - 130
13C12-1234678-HpCDD	93	23 - 140
13C12-OCDD	90	17 - 157
13C12-12378-PeCDF	101	24 - 185
13C12-23478-PeCDF	99	21 - 178
13C12-123478-HxCDF	83	26 - 152
13C12-123678-HxCDF	89	26 - 123
13C12-234678-HxCDF	85	28 - 136
13C12-123789-HxCDF	95	29 - 147
13C12-1234678-HpCDF	98	28 - 143
13C12-1234789-HpCDF	82	26 - 138
13C12-OCDF	79	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-686-SA6-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7473411
LL Group # 1476374
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 08:02 by BC

Submitted: 05/22/2014 09:25
Reported: 06/05/2014 10:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

68605 SDG#: PH192-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-686-SA6-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7473411
LL Group # 1476374
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 08:02 by BC

Submitted: 05/22/2014 09:25
Reported: 06/05/2014 10:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

68605 SDG#: PH192-02

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14148SLC026	05/30/2014 05:25	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	14148SLC026	05/29/2014 09:30	David S Schrum	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440034A	05/28/2014 01:42	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440034A	05/27/2014 06:30	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440032A	05/28/2014 19:27	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440033A	05/30/2014 04:39	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440033A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440032A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14149003	06/02/2014 23:39	Joseph D Anderson	1
11650	Dioxins/Furans in Solids-Conf	EPA 1613B October 1994	1	14149003	06/04/2014 03:24	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14149003	05/29/2014 12:00	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-686-SA6-TR-0.5 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7473411
LL Group # 1476374
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 08:02 by BC

Submitted: 05/22/2014 09:25
Reported: 06/05/2014 10:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

68605 SDG#: PH192-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06972	Zinc	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141470637002	05/28/2014 21:36	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141470637002B	05/28/2014 19:35	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637002A	05/28/2014 19:35	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637002A	05/28/2014 19:35	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637002A	05/28/2014 19:35	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638001	06/04/2014 19:30	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637002	05/28/2014 07:39	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638001	06/01/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14142039402A	05/22/2014 21:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14147162401B	05/27/2014 17:27	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-686-SA6-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7473412
LL Group # 1476374
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 08:20 by BC

Submitted: 05/22/2014 09:25
Reported: 06/05/2014 10:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

68650 SDG#: PH192-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.70	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.70	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.70	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.70	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.70	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2	24.41
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-686-SA6-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7473412
LL Group # 1476374
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 08:20 by BC

Submitted: 05/22/2014 09:25
Reported: 06/05/2014 10:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

68650 SDG#: PH192-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	23,000		42.2	7.61	1
06944	Antimony	7440-36-0	4.22	U	4.22	0.781	1
06935	Arsenic	7440-38-2	5.64		4.22	0.739	1
06946	Barium	7440-39-3	104		1.06	0.0348	1
06947	Beryllium	7440-41-7	0.911	J	1.06	0.0707	1
07914	Boron	7440-42-8	4.95	J	10.6	0.887	1
06949	Cadmium	7440-43-9	0.561	J	1.06	0.0803	1
01650	Calcium	7440-70-2	2,400		21.1	3.53	1
06951	Chromium	7440-47-3	24.0		3.17	0.169	1
06952	Cobalt	7440-48-4	8.69		1.06	0.105	1
06953	Copper	7440-50-8	8.37		2.11	0.306	1
01654	Iron	7439-89-6	25,000		42.2	3.82	1
06955	Lead	7439-92-1	6.76		3.17	0.528	1
01656	Lithium	7439-93-2	27.4		4.2	0.36	1
01657	Magnesium	7439-95-4	5,050		10.6	1.76	1
06958	Manganese	7439-96-5	317		1.06	0.0876	1
06960	Molybdenum	7439-98-7	0.413	J	2.11	0.180	1
06961	Nickel	7440-02-0	12.3		2.11	0.137	1
10145	Phosphorus	7723-14-0	220		10.6	3.05	1
01662	Potassium	7440-09-7	2,030		106	8.81	1
01667	Sodium	7440-23-5	111		106	17.6	1
06969	Tin	7440-31-5	2.68	J	10.6	0.232	1
06970	Titanium	7440-32-6	1,270		1.06	0.180	1
06971	Vanadium	7440-62-2	48.7		1.06	0.137	1
06972	Zinc	7440-66-6	50.7		4.22	0.211	1
10146	Zirconium	7440-67-7	4.35	J	5.28	0.887	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.135	J	0.422	0.106	2
06142	Silver	7440-22-4	0.0617	J	0.211	0.0275	2
06144	Strontium	7440-24-6	27.1		0.422	0.0718	2
06145	Thallium	7440-28-0	0.302		0.211	0.0317	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0174	U	0.0174	0.0104	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-686-SA6-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7473412
LL Group # 1476374
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 08:20 by BC

Submitted: 05/22/2014 09:25
Reported: 06/05/2014 10:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

68650 SDG#: PH192-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 22.3 C.	n.a.	6.18	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	5.3	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-686-SA6-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7473412
LL Group # 1476374
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 08:20 by BC

Submitted: 05/22/2014 09:25
Reported: 06/05/2014 10:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

68650 SDG#: PH192-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.02	U	1.02	0.0436	1
11031	12378-PeCDD	40321-76-4	0.116	J	5.09	0.0359	1
11031	123478-HxCDD	39227-28-6	0.0604	JQ	5.09	0.0271	1
11031	123678-HxCDD	57653-85-7	0.0889	JQ	5.09	0.0293	1
11031	123789-HxCDD	19408-74-3	0.129	J	5.09	0.0268	1
11031	1234678-HpCDD	35822-46-9	2.42	JBQ	5.09	0.0415	1
11031	OCDD	3268-87-9	41.2	B	10.2	0.0402	1
11031	2378-TCDF	51207-31-9	1.02	U	1.02	0.0342	1
11031	12378-PeCDF	57117-41-6	0.119	JQ	5.09	0.0196	1
11031	23478-PeCDF	57117-31-4	0.103	JB	5.09	0.0186	1
11031	123478-HxCDF	70648-26-9	0.0947	JB	5.09	0.0252	1
11031	123678-HxCDF	57117-44-9	0.0737	JQ	5.09	0.0229	1
11031	123789-HxCDF	72918-21-9	0.0776	JBQ	5.09	0.0241	1
11031	234678-HxCDF	60851-34-5	0.0398	JQ	5.09	0.0242	1
11031	1234678-HpCDF	67562-39-4	0.273	JBQ	5.09	0.0243	1
11031	1234789-HpCDF	55673-89-7	0.0420	JBQ	5.09	0.0356	1
11031	OCDF	39001-02-0	0.586	JBQ	10.2	0.0376	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.181				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	67	32 - 141
13C12-123678-HxCDD	65	28 - 130
13C12-123789-HxCDD	70	28 - 130
13C12-1234678-HpCDD	68	23 - 140
13C12-OCDD	61	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	84	24 - 185
13C12-23478-PeCDF	81	21 - 178
13C12-123478-HxCDF	62	26 - 152
13C12-123678-HxCDF	69	26 - 123
13C12-234678-HxCDF	63	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	77	28 - 143
13C12-1234789-HpCDF	59	26 - 138
13C12-OCDF	52	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-686-SA6-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7473412
LL Group # 1476374
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 08:20 by BC

Submitted: 05/22/2014 09:25
Reported: 06/05/2014 10:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

68650 SDG#: PH192-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-686-SA6-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7473412
LL Group # 1476374
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 08:20 by BC

Submitted: 05/22/2014 09:25
Reported: 06/05/2014 10:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

68650 SDG#: PH192-03

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14142SLF026	05/27/2014 12:36	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14142SLF026	05/23/2014 09:45	Katheryne V Sponheimer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147B16A	05/29/2014 06:37	Marie D Beamenderfer	24.41
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414234583	05/22/2014 15:21	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414234583	05/22/2014 15:21	Lisa J Cooke	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440034A	05/28/2014 02:00	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440034A	05/27/2014 06:30	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440032A	05/28/2014 02:34	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440033A	05/30/2014 00:43	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440033A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440032A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14149003	06/03/2014 00:35	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14149003	05/29/2014 12:00	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-686-SA6-TR-5.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7473412
LL Group # 1476374
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 08:20 by BC

Submitted: 05/22/2014 09:25
Reported: 06/05/2014 10:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

68650 SDG#: PH192-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141470637002	05/28/2014 21:40	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141470637002B	05/28/2014 19:38	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637002A	05/28/2014 19:38	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637002A	05/28/2014 19:38	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637002A	05/28/2014 19:38	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638001	06/04/2014 19:32	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637002	05/28/2014 07:39	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638001	06/01/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14142039402A	05/22/2014 21:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14147162401B	05/27/2014 17:27	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-686-SA6-TR-11.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7473413
LL Group # 1476374
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 10:58 by BC

Submitted: 05/22/2014 09:25
Reported: 06/05/2014 10:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

68611 SDG#: PH192-04*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	1.7	U	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.2	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.69	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1	U	1	0.2	23.67
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.2	1
13099	PCB-1242	53469-21-9	18	U	18	4.2	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	18	U	18	4.5	1
13099	PCB-1260	11096-82-5	18	U	18	4.0	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-686-SA6-TR-11.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7473413
LL Group # 1476374
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 10:58 by BC

Submitted: 05/22/2014 09:25
Reported: 06/05/2014 10:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

68611 SDG#: PH192-04*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C30-C40)	n.a.	10	U	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	17,400		41.1	7.40	1
06944	Antimony	7440-36-0	4.11	U	4.11	0.760	1
06935	Arsenic	7440-38-2	3.76	J	4.11	0.719	1
06946	Barium	7440-39-3	62.5		1.03	0.0339	1
06947	Beryllium	7440-41-7	0.585	J	1.03	0.0688	1
07914	Boron	7440-42-8	4.31	J	10.3	0.862	1
06949	Cadmium	7440-43-9	0.433	J	1.03	0.0780	1
01650	Calcium	7440-70-2	1,860		20.5	3.43	1
06951	Chromium	7440-47-3	18.4		3.08	0.164	1
06952	Cobalt	7440-48-4	3.32		1.03	0.102	1
06953	Copper	7440-50-8	6.08		2.05	0.298	1
01654	Iron	7439-89-6	20,700		41.1	3.72	1
06955	Lead	7439-92-1	5.05		3.08	0.513	1
01656	Lithium	7439-93-2	22.1		4.1	0.35	1
01657	Magnesium	7439-95-4	4,170		10.3	1.71	1
06958	Manganese	7439-96-5	167		1.03	0.0852	1
06960	Molybdenum	7439-98-7	2.05	U	2.05	0.175	1
06961	Nickel	7440-02-0	6.62		2.05	0.133	1
10145	Phosphorus	7723-14-0	137		10.3	2.97	1
01662	Potassium	7440-09-7	1,630		103	8.56	1
01667	Sodium	7440-23-5	125		103	17.1	1
06969	Tin	7440-31-5	2.71	J	10.3	0.226	1
06970	Titanium	7440-32-6	1,130		1.03	0.175	1
06971	Vanadium	7440-62-2	39.2		1.03	0.133	1
06972	Zinc	7440-66-6	39.6		4.11	0.205	1
10146	Zirconium	7440-67-7	3.33	J	5.13	0.862	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.411	U	0.411	0.103	2
06142	Silver	7440-22-4	0.0462	J	0.205	0.0267	2
06144	Strontium	7440-24-6	19.8		0.411	0.0698	2
06145	Thallium	7440-28-0	0.258		0.205	0.0308	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0166	U	0.0166	0.0099	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-686-SA6-TR-11.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7473413
LL Group # 1476374
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 10:58 by BC

Submitted: 05/22/2014 09:25
Reported: 06/05/2014 10:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

68611 SDG#: PH192-04*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D	n.a.	6.96	0.0100	0.0100	1
	The pH was measured in water at 22.5 C.					
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	4.5	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: SL-686-SA6-TR-11.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7473413
LL Group # 1476374
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 10:58 by BC

Submitted: 05/22/2014 09:25
Reported: 06/05/2014 10:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

68611 SDG#: PH192-04*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.03	U	1.03	0.0317	1
11031	12378-PeCDD	40321-76-4	5.14	U	5.14	0.0258	1
11031	123478-HxCDD	39227-28-6	0.0507	JQ	5.14	0.0242	1
11031	123678-HxCDD	57653-85-7	0.0622	JQ	5.14	0.0261	1
11031	123789-HxCDD	19408-74-3	0.0530	JQ	5.14	0.0241	1
11031	1234678-HpCDD	35822-46-9	1.08	JB	5.14	0.0318	1
11031	OCDD	3268-87-9	21.1	B	10.3	0.0221	1
11031	2378-TCDF	51207-31-9	1.03	U	1.03	0.0227	1
11031	12378-PeCDF	57117-41-6	0.0356	JQ	5.14	0.0112	1
11031	23478-PeCDF	57117-31-4	0.0190	JBQ	5.14	0.0113	1
11031	123478-HxCDF	70648-26-9	0.0578	JBQ	5.14	0.0163	1
11031	123678-HxCDF	57117-44-9	0.0371	JQ	5.14	0.0146	1
11031	123789-HxCDF	72918-21-9	0.0541	JB	5.14	0.0175	1
11031	234678-HxCDF	60851-34-5	0.0215	JQ	5.14	0.0147	1
11031	1234678-HpCDF	67562-39-4	0.129	JBQ	5.14	0.0177	1
11031	1234789-HpCDF	55673-89-7	0.0387	JBQ	5.14	0.0260	1
11031	OCDF	39001-02-0	0.364	JB	10.3	0.0247	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0227				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	83	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	82	23 - 140
13C12-OCDD	77	17 - 157
13C12-2378-TCDF	76	24 - 169
13C12-12378-PeCDF	90	24 - 185
13C12-23478-PeCDF	86	21 - 178
13C12-123478-HxCDF	71	26 - 152
13C12-123678-HxCDF	80	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	75	29 - 147
13C12-1234678-HpCDF	94	28 - 143
13C12-1234789-HpCDF	68	26 - 138
13C12-OCDF	61	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-686-SA6-TR-11.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7473413
LL Group # 1476374
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 10:58 by BC

Submitted: 05/22/2014 09:25
Reported: 06/05/2014 10:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

68611 SDG#: PH192-04*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-686-SA6-TR-11.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7473413
LL Group # 1476374
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 10:58 by BC

Submitted: 05/22/2014 09:25
Reported: 06/05/2014 10:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

68611 SDG#: PH192-04*

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14142SLF026	05/28/2014 05:50	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14142SLF026	05/23/2014 09:45	Katheryne V Sponheimer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147B16A	05/29/2014 07:15	Marie D Beamenderfer	23.67
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414234583	05/22/2014 15:23	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414234583	05/22/2014 15:23	Lisa J Cooke	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440034A	05/28/2014 02:18	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440034A	05/27/2014 06:30	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440032A	05/28/2014 02:56	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440033A	05/30/2014 01:05	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440033A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440032A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14149003	06/03/2014 01:32	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14149003	05/29/2014 12:00	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-686-SA6-TR-11.0 Grab Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7473413
LL Group # 1476374
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 10:58 by BC

Submitted: 05/22/2014 09:25
Reported: 06/05/2014 10:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

68611 SDG#: PH192-04*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141470637002	05/28/2014 21:44	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141470637002B	05/28/2014 19:40	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637002A	05/28/2014 19:40	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637002A	05/28/2014 19:40	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637002A	05/28/2014 19:40	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638001	06/04/2014 19:34	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637002	05/28/2014 07:39	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638001	06/01/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14142039402A	05/22/2014 21:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14147162401B	05/27/2014 17:27	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476374
Reported: 06/05/14 at 10:43 AM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14142SLF026	Sample number(s): 7473412-7473413									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	106		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	103		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	106		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	110		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	93		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	109		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	84		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	98		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	88		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	106		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	107		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	95		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	102		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	88		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	93		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	114		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	104		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	106		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	99		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	94		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	101		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	96		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	96		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	112		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	100		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	95		80-119		
Batch number: 14148SLC026	Sample number(s): 7473411									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	106		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	102		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	109		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	111		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	99		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	113		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	89		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	99		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	98		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	107		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	110		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	96		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	104		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	102		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	92		85-122		

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476374
Reported: 06/05/14 at 10:43 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	114		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	113		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	96		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	102		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	96		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	102		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	101		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	105		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	116		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	106		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	99		80-119		
Batch number: 14147B16A	Sample number(s): 7473412-7473413									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	88		67-120		
Batch number: 14149A94A	Sample number(s): 7473410									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	96	95	80-133	1	30
Batch number: 141440034A	Sample number(s): 7473411-7473413									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	91	92	36-106	1	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	100		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	107		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141440032A	Sample number(s): 7473411-7473413									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	92		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	95		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	95		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	84		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	77		60-115		
Batch number: 141440033A	Sample number(s): 7473411-7473413									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	101		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	104		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	104		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	91		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	77		60-115		
Batch number: 141470637002	Sample number(s): 7473411-7473413									
Aluminum	9.28	J	40.0	7.21	mg/kg	110		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	107		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	105		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	103		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	103		80-120		
Boron	0.858	J	10.0	0.840	mg/kg	102		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	106		80-120		
Calcium	12.8	J	20.0	3.34	mg/kg	106		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	103		80-120		

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476374
Reported: 06/05/14 at 10:43 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Cobalt	1.00	U	1.00	0.0990	mg/kg	107		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	106		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	106		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	107		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	107		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	102		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	105		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	105		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	110		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	106		80-120		
Potassium	100 U		100.	8.34	mg/kg	103		80-120		
Sodium	100 U		100.	16.7	mg/kg	102		80-120		
Tin	1.36	J	10.0	0.220	mg/kg	104		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	104		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	106		80-120		
Zinc	0.956	J	4.00	0.200	mg/kg	105		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	105		80-120		
Batch number: 141470637002A	Sample number(s): 7473411-7473413									
Silver	0.200	U	0.200	0.0260	mg/kg	113		80-120		
Strontium	0.400	U	0.400	0.0680	mg/kg	115		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	108		80-120		
Batch number: 141470637002B	Sample number(s): 7473411-7473413									
Selenium	0.400	U	0.400	0.100	mg/kg	112		80-120		
Batch number: 141480638001	Sample number(s): 7473411-7473413									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	86		85-120		
Batch number: 14142039402A	Sample number(s): 7473411-7473413									
15a pH by 9045D						100		95-105		
Batch number: 14147162401B	Sample number(s): 7473411-7473413									
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14149003	Sample number(s): 7473411-7473413									
2378-TCDD	1.00	U	1.00	0.0672	ng/kg	90		67-158		
12378-PeCDD	5.00	U	5.00	0.0446	ng/kg	93		70-142		
123478-HxCDD	5.00	U	5.00	0.0247	ng/kg	95		70-164		
123678-HxCDD	5.00	U	5.00	0.0260	ng/kg	92		76-134		
123789-HxCDD	5.00	U	5.00	0.0242	ng/kg	91		64-162		
1234678-HpCDD	0.141	J	5.00	0.0319	ng/kg	89		70-140		
OCDD	0.666	J	10.0	0.0325	ng/kg	92		78-144		
2378-TCDF	1.00	U	1.00	0.0431	ng/kg	98		75-158		
2378-TCDF-Conf	1.00	U	1.00	0.0911	ng/kg	98		75-158		
12378-PeCDF	5.00	U	5.00	0.0263	ng/kg	95		80-134		
23478-PeCDF	0.0348	J	5.00	0.0249	ng/kg	95		68-160		
123478-HxCDF	0.0521	J	5.00	0.0238	ng/kg	94		72-134		
123678-HxCDF	5.00	U	5.00	0.0221	ng/kg	93		84-130		
123789-HxCDF	0.0589	J	5.00	0.0226	ng/kg	93		78-130		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476374
Reported: 06/05/14 at 10:43 AM

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
234678-HxCDF	5.00 U	5.00	0.0229	ng/kg	96		70-156		
1234678-HpCDF	0.0566 J	5.00	0.0106	ng/kg	92		82-122		
1234789-HpCDF	0.0442 J	5.00	0.0170	ng/kg	92		78-138		
OCDF	0.153 J	10.0	0.0609	ng/kg	93		63-170		
TEQ WHO 2005 - EDLx0.0	0.000766			ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14142SLF026	Sample number(s): 7473412-7473413 UNSPK: P471505								
Acenaphthene	101	99	48-127	1	30				
Acenaphthylene	99	102	60-128	3	30				
Anthracene	99	103	52-126	5	30				
Benzo(a)anthracene	107	112	44-143	5	30				
Benzo(a)pyrene	95	96	49-137	1	30				
Benzo(b)fluoranthene	106	102	26-142	4	30				
Benzo(e)pyrene	85	86	63-111	1	30				
Benzo(g,h,i)perylene	89	92	33-141	4	30				
Benzo(k)fluoranthene	92	94	49-144	3	30				
Butylbenzylphthalate	110	112	64-156	1	30				
Di-n-butylphthalate	114	109	52-147	4	30				
Chrysene	92	96	43-141	4	30				
Dibenz(a,h)anthracene	93	96	25-145	4	30				
Diethylphthalate	80	83	66-140	5	30				
Dimethylphthalate	87	89	70-123	3	30				
Bis(2-Ethylhexyl)phthalate	123	121	48-164	1	30				
Fluoranthene	94	106	38-153	11	30				
Fluorene	98	100	57-130	3	30				
Indeno(1,2,3-cd)pyrene	98	95	26-139	3	30				
1-Methylnaphthalene	92	92	59-139	1	30				
2-Methylnaphthalene	95	97	46-147	3	30				
Naphthalene	93	97	52-136	5	30				
N-Nitrosodimethylamine	89	87	39-134	1	30				
Di-n-octylphthalate	121	119	52-162	1	30				
Phenanthrene	93	101	50-137	8	30				
Pyrene	83	96	26-143	14	30				
Batch number: 14148SLC026	Sample number(s): 7473411 UNSPK: 7473411								
Acenaphthene	523*	93	48-127	139*	30				
Acenaphthylene	100	93	60-128	8	30				
Anthracene	828*	94	52-126	157*	30				
Benzo(a)anthracene	2123*	107	44-143	179*	30				
Benzo(a)pyrene	1356*	88	49-137	173*	30				
Benzo(b)fluoranthene	1617*	108	26-142	168*	30				
Benzo(e)pyrene	731*	80	63-111	154*	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476374
Reported: 06/05/14 at 10:43 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Benzo(g,h,i)perylene	521*	55	33-141	156*	30				
Benzo(k)fluoranthene	838*	84	49-144	160*	30				
Butylbenzylphthalate	107	124	64-156	14	30				
Di-n-butylphthalate	100	129	52-147	21	30				
Chrysene	2194*	89	43-141	178*	30				
Dibenz(a,h)anthracene	274*	68	25-145	119*	30				
Diethylphthalate	89	93	66-140	5	30				
Dimethylphthalate	86	85	70-123	1	30				
Bis(2-Ethylhexyl)phthalate	74	89	48-164	9	30				
Fluoranthene	5514*	114	38-153	189*	30				
Fluorene	371*	83	57-130	126*	30				
Indeno(1,2,3-cd)pyrene	613*	65	26-139	158*	30				
1-Methylnaphthalene	126	85	59-139	38*	30				
2-Methylnaphthalene	150*	89	46-147	49*	30				
Naphthalene	134	87	52-136	41*	30				
N-Nitrosodimethylamine	87	86	39-134	2	30				
Di-n-octylphthalate	102	134	52-162	27	30				
Phenanthrene	5273*	107	50-137	191*	30				
Pyrene	4103*	96	26-143	188*	30				
Batch number: 14147B16A	Sample number(s): 7473412-7473413 UNSPK: P471505								
11a TPH by EPA 8015B GRO	76	79	69-123	1	30				
Batch number: 141440034A	Sample number(s): 7473411-7473413 UNSPK: P473686								
PCB-1016	73	85	41-135	15	50				
PCB-1260	89	87	40-134	3	50				
Batch number: 141440032A	Sample number(s): 7473411-7473413 UNSPK: P473686								
EFH (C12-C14)	101	97	49-123	4	20				
EFH (C15-C20)	140*	120	49-123	16	20				
EFH (C21-C30)	353*	130*	49-123	75*	20				
EFH (C30-C40)	484*	156*	49-123	76*	20				
EFH (C8-C11)	97	90	49-123	7	20				
Batch number: 141440033A	Sample number(s): 7473411-7473413 UNSPK: P473686								
EFH C12-C14 w/ SiGel	81	70	49-123	14	20				
EFH C15-C20 w/ SiGel	90	75	49-123	18	20				
EFH C21-C30 w/ SiGel	196*	74	49-123	79*	20				
EFH C30-C40 w/ SiGel	216*	72	49-123	80*	20				
EFH C8-C11 w/ SiGel	67	55	49-123	18	20				
Batch number: 141470637002	Sample number(s): 7473411-7473413 UNSPK: P471505 BKG: P471505								
Aluminum	372 (2)	821 (2)	75-125	6	20	15,100	13,200	13	20
Antimony	52*	51*	75-125	2	20	4.00 U	4.00 U	0 (1)	20
Arsenic	96	96	75-125	2	20	4.11	3.09 J	28* (1)	20
Barium	35*	37*	75-125	2	20	230	94.1	84*	20
Beryllium	101	102	75-125	3	20	0.562 J	0.486 J	15 (1)	20
Boron	98	98	75-125	3	20	6.78 J	4.93 J	32* (1)	20
Cadmium	97	97	75-125	3	20	0.549 J	0.491 J	11 (1)	20
Calcium	149 (2)	103 (2)	75-125	5	20	2,920	2,520	15	20
Chromium	81	89	75-125	5	20	20.4	16.4	22*	20
Cobalt	96	97	75-125	4	20	5.22	5.04	4	20

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476374
Reported: 06/05/14 at 10:43 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Copper	102	105	75-125	4	20	10.3	8.93	14 (1)	20
Iron	-2173 (2)	-1295 (2)	75-125	5	20	18,600	17,400	7	20
Lead	98	93	75-125	2	20	6.89	5.48	23* (1)	20
Lithium	99	101	75-125	4	20	21.7	20.3	7	20
Magnesium	-196 (2)	-75 (2)	75-125	6	20	4,220	3,840	9	20
Manganese	156 (2)	119 (2)	75-125	5	20	291	294	1	20
Molybdenum	95	96	75-125	3	20	0.441 J	0.329 J	29* (1)	20
Nickel	96	97	75-125	4	20	11.0	10.8	3	20
Phosphorus	106	38*	75-125	15	20	372	354	5	20
Potassium	108	109	75-125	1	20	3,220	3,070	5	20
Sodium	95	96	75-125	4	20	111	102	8 (1)	20
Tin	90	90	75-125	3	20	2.39 J	2.23 J	7 (1)	20
Titanium	150 (2)	258 (2)	75-125	9	20	1,070	994	8	20
Vanadium	97	102	75-125	5	20	34.9	30.6	13	20
Zinc	93	89	75-125	1	20	56.3	52.0	8	20
Zirconium	98	98	75-125	4	20	3.99 J	4.08 J	2 (1)	20
Batch number: 141470637002A	Sample number(s): 7473411-7473413 UNSPK: P471505 BKG: P471505								
Silver	105	102	75-125	0	20	0.0276 J	0.0297 J	8 (1)	20
Strontium	106	92	75-125	3	20	22.8	19.7	15	20
Thallium	120	112	75-125	2	20	0.256	0.252	1 (1)	20
Batch number: 141470637002B	Sample number(s): 7473411-7473413 UNSPK: P471505 BKG: P471505								
Selenium	99	99	75-125	3	20	0.137 J	0.118 J	15 (1)	20
Batch number: 141480638001	Sample number(s): 7473411-7473413 UNSPK: P473686 BKG: P473686								
3a Mercury 7471A	96	118	65-135	14	20	0.0559	0.0505	10 (1)	20
Batch number: 14142039402A	Sample number(s): 7473411-7473413 BKG: P473686								
15a pH by 9045D						7.24	7.22	0	3
Batch number: 14147162401B	Sample number(s): 7473411-7473413 BKG: P473396								
14a Moisture Content by 160.3						12.9	13.8	6	20
Batch number: 14149003	Sample number(s): 7473411-7473413 UNSPK: P473148								
2378-TCDD	85	87	40-135	2	20				
12378-PeCDD	90	90	40-135	4	20				
123478-HxCDD	92	92	40-135	4	20				
123678-HxCDD	89	88	40-135	4	20				
123789-HxCDD	90	87	40-135	6	20				
1234678-HpCDD	128	99	40-135	9	20				
OCDD	484 (2)	326 (2)	40-135	7	20				
2378-TCDF	90	88	40-135	6	20				
2378-TCDF-Conf	90	88	40-135	6	20				
12378-PeCDF	89	91	40-135	1	20				
23478-PeCDF	89	91	40-135	2	20				
123478-HxCDF	91	90	40-135	6	20				
123678-HxCDF	90	88	40-135	6	20				
123789-HxCDF	88	90	40-135	2	20				
234678-HxCDF	89	90	40-135	3	20				

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476374
Reported: 06/05/14 at 10:43 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
1234678-HpCDF	92	90	40-135	5	20				
1234789-HpCDF	87	88	40-135	4	20				
OCDF	90	91	40-135	2	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14142SLF026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7473412	87	101	80
7473413	86	95	76
Blank	92	106	85
LCS	96	110	88
MS	90	100	83
MSD	89	99	82
Limits:	59-115	61-118	70-127

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14148SLC026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7473411	98	92	83
Blank	106	114	91
LCS	108	119*	92
MS	105	81	80
MSD	93	94	78
Limits:	59-115	61-118	70-127

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 14147B16A

	Trifluorotoluene-F
7473412	86
7473413	75
Blank	98
LCS	101
MS	90
MSD	83
Limits:	50-142

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476374
Reported: 06/05/14 at 10:43 AM

Surrogate Quality Control

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14149A94A

	Trifluorotoluene-F
7473410	81
Blank	82
LCS	91
LCSD	90
Limits:	63-135

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141440034A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7473411	97	103
7473412	99	100
7473413	103	116
Blank	112	122*
LCS	110	120
LCSD	104	116
MS	84	94
MSD	96	98
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141440032A

	Chlorobenzene	Orthoterphenyl
7473411	72	94
7473412	83	90
7473413	75	90
Blank	82	96
LCS	87	95
MS	82	101
MSD	80	98
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141440033A

	Chlorobenzene	Orthoterphenyl
7473411	75	91
7473412	72	81
7473413	70	78
Blank	79	87
LCS	92	107
MS	73	80
MSD	63	76
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476374
Reported: 06/05/14 at 10:43 AM

Surrogate Quality Control

Batch number: 14149003

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7473411	85	94	87	87	93	93
7473412	74	78	67	65	70	68
7473413	73	83	79	78	81	82
Blank	67	75	84	82	82	79
MS	80	79	84	82	83	77
MSD	80	78	80	78	81	76
OPR	69	73	79	78	80	75
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7473411	90		101	99	83	89
7473412	61	74	84	81	62	69
7473413	77	76	90	86	71	80
Blank	65	59	69	64	68	75
MS	64	72	69	69	70	70
MSD	60	71	68	67	67	67
OPR	64	60	69	63	66	73
Limits:	17-157	24-169	24-185	21-178	26-152	26-123

	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-2378-TCDF-Conf
7473411	85	95	98	82	79	70
7473412	63	72	77	59	52	
7473413	76	75	94	68	61	
Blank	71	78	88	59	49	64
MS	73	68	67	57	41	72
MSD	69	67	65	62	46	71
OPR	68	73	83	56	47	60
Limits:	28-136	29-147	28-143	26-138	17-157	24-169

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/21/2014
CarrierName: FedEx
AirbillNo: 770058142099

A-13013
G-1476374
S-7473410-13

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140521-03
Cooler #: 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
TB3-052114	5/21/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																			X																
SL-686-SA6-TR-0.5	5/21/14 08:02	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X								X														For all EFH, silica gel clean up
SL-686-SA6-TR-5.0	5/21/14 08:20	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X								X														required on half the extracts.
SL-686-SA6-TR-5.0	5/21/14 08:20	SO	None	2 - Encore	10 day																			X																Analyze both extracts for EFH.
SL-686-SA6-TR-11.0	5/21/14 10:58	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X								X														
SL-686-SA6-TR-11.0	5/21/14 10:58	SO	None	2 - Encore	10 day																			X																

Special Instructions:

Sampler: Ben Cisneros

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[signature]	05/21/2014	16:00									
									[signature]	5/22/14	0925

TRENCHING

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 15293

Group Number(s): 476374

Client: CDM Smith

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/22/2014 9:25
Number of Packages:	4	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	9
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	No		
VOA Vial Headspace ≥ 6mm:	N/A		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Joseph Gruber (5200) at 11:54 on 05/22/2014

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT131	0.9	DT	Wet	Y	Bagged	N	N
2	DT131	0.8	DT	Wet	Y	Bagged	N	N
3	DT131	1.2	DT	Wet	Y	Bagged	N	N
4	DT131	1.0	DT	Wet	Y	Bagged	N	N

Sample Date/Time Discrepancy Details

Sample ID on COC	Date/Time on Label	Comments
FDG2-SL-584SA5D-SB-4.0-5.0	5/21/2014 08:18	1 16 oz. container

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 06, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/22/2014
Group Number: 1476433
SDG: PH193
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB1-052114 Water	7473685
FDG2-SL-585-SA5D-SB-0.0-0.5 Soil	7473686
FDG2-SL-585-SA5D-SB-0.0-0.5MS Soil	7473687
FDG2-SL-585-SA5D-SB-0.0-0.5MSD Soil	7473688
FDG2-SL-585-SA5D-SB-0.0-0.5DUP Soil	7473689
FDG2-SL-885-SA5D-SB-0.0-0.5 Soil	7473690
FDG2-SL-585-SA5D-SB-4.0-5.0 Soil	7473691
FDG2-SL-584-SA5D-SB-0.0-0.5 Soil	7473692
FDG2-SL-584-SA5D-SB-4.0-5.0 Soil	7473693
FDG2-SL-586-SA5D-SB-0.0-0.5 Soil	7473694
FDG2-SL-586-SA5D-SB-2.0-3.0 Soil	7473695
FDG2-SL-623-SA8-SB-0.0-0.5 Soil	7473696
FDG2-SL-623-SA8-SB-4.0-5.0 Soil	7473697
FDG2-SL-623-SA8-SB-9.0-10.0 Soil	7473698
FDG2-SL-623-SA8-SB-14.0-15.0 Soil	7473699
FDG2-SL-623-SA8-SB-19.0-20.0 Soil	7473700

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: TB1-052114 Water
SSFL Phase 3 Subarea 5D/8

LL Sample # WW 7473685
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 08:00

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

1TB-- SDG#: PH193-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14149A94A	05/29/2014 23:20	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14149A94A	05/29/2014 23:20	Miranda P Tillinghast	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473686
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:06 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58500 SDG#: PH193-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.70	1
12969	Acenaphthylene	208-96-8	0.35	J	1.8	0.35	1
12969	Anthracene	120-12-7	1.7	J	1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	5.7		1.8	0.70	1
12969	Benzo(a)pyrene	50-32-8	7.5		1.8	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	18		1.8	0.70	1
12969	Benzo(e)pyrene	192-97-2	13	J	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	11		1.8	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	4.8		1.8	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	7.1	J	19	6.3	1
12969	Chrysene	218-01-9	14		1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	2.1		1.8	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	34		19	6.3	1
12969	Fluoranthene	206-44-0	11		1.8	0.70	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	13		1.8	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.6	J	1.8	0.70	1
12969	2-Methylnaphthalene	91-57-6	2.5		1.8	0.70	1
12969	Naphthalene	91-20-3	2.0		1.8	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	8.4		1.8	0.70	1
12969	Pyrene	129-00-0	8.7		1.8	0.70	1
Aldehydes & Ketones	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
13031	Formaldehyde	50-00-0	21,000	U	21,000	13,000	1
	Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.86	U	0.86	0.18	1
10590	Alpha BHC	319-84-6	0.86	U	0.86	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.86	U	0.86	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.2	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.34	1
10590	p,p-DDE	72-55-9	2.4		1.8	0.34	1
10590	p,p-DDT	50-29-3	7.8		1.8	0.36	1
10590	Delta BHC	319-86-8	0.86	U	0.86	0.47	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.85	1
10590	Endosulfan I	959-98-8	0.86	U	0.86	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.34	1
10590	Endrin	72-20-8	1.8	U	1.8	0.42	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.49	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.62	1
10590	Heptachlor	76-44-8	0.86	U	0.86	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.86	U	0.86	0.23	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473686
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:06 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58500 SDG#: PH193-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Methoxychlor	72-43-5	7.0	U	7.0	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	15	1
	Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	26	J	34	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	28		18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C21-C30)	n.a.	7.3		5.3	2.1	1
12952	EFH (C30-C40)	n.a.	18		11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	2.7	J	5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	5.7	J	11	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
	The reverse surrogate, capric acid, is present at <1%.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	16,300		42.3	7.62	1
06944	Antimony	7440-36-0	4.23	U	4.23	0.782	1
06935	Arsenic	7440-38-2	6.33		4.23	0.740	1
06946	Barium	7440-39-3	93.9		1.06	0.0349	1
06947	Beryllium	7440-41-7	0.593	J	1.06	0.0708	1
07914	Boron	7440-42-8	5.14	J	10.6	0.888	1
06949	Cadmium	7440-43-9	0.590	J	1.06	0.0803	1
01650	Calcium	7440-70-2	3,210		21.1	3.53	1
06951	Chromium	7440-47-3	23.5		3.17	0.169	1
06952	Cobalt	7440-48-4	5.16		1.06	0.105	1
06953	Copper	7440-50-8	16.1		2.11	0.307	1
01654	Iron	7439-89-6	20,100		42.3	3.83	1
06955	Lead	7439-92-1	12.0		3.17	0.529	1
01656	Lithium	7439-93-2	22.1		4.2	0.36	1
01657	Magnesium	7439-95-4	4,300		10.6	1.77	1
06958	Manganese	7439-96-5	218		1.06	0.0877	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473686
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:06 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58500 SDG#: PH193-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
06960	Molybdenum	7439-98-7	0.424	J	2.11	0.180	1
06961	Nickel	7440-02-0	14.0		2.11	0.137	1
10145	Phosphorus	7723-14-0	350		10.6	3.05	1
01662	Potassium	7440-09-7	3,600		106	8.82	1
01667	Sodium	7440-23-5	91.2	J	106	17.7	1
06969	Tin	7440-31-5	2.25	J	10.6	0.233	1
06970	Titanium	7440-32-6	1,030		1.06	0.180	1
06971	Vanadium	7440-62-2	37.1		1.06	0.137	1
06972	Zinc	7440-66-6	88.2		4.23	0.211	1
10146	Zirconium	7440-67-7	4.44	J	5.29	0.888	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.183	J	0.423	0.106	2
06142	Silver	7440-22-4	0.372		0.211	0.0275	2
06144	Strontium	7440-24-6	24.4		0.423	0.0719	2
06145	Thallium	7440-28-0	0.300		0.211	0.0317	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0591		0.0167	0.0100	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.24		0.0100	0.0100	1
	The pH was measured in water at 22.5 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	5.4		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473686
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:06 by RR

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58500 SDG#: PH193-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.06	U	1.06	0.0458	1
11031	12378-PeCDD	40321-76-4	0.990	J	5.28	0.0695	1
11031	123478-HxCDD	39227-28-6	1.51	JB	5.28	0.0487	1
11031	123678-HxCDD	57653-85-7	6.21		5.28	0.0513	1
11031	123789-HxCDD	19408-74-3	3.64	J	5.28	0.0492	1
11031	1234678-HpCDD	35822-46-9	144	B	5.28	0.121	1
11031	OCDD	3268-87-9	1,670	B	10.6	0.0784	1
11031	2378-TCDF	51207-31-9	0.835	J	1.06	0.102	1
11031	12378-PeCDF	57117-41-6	1.73	JB	5.28	0.0388	1
11031	23478-PeCDF	57117-31-4	1.02	JB	5.28	0.0381	1
11031	123478-HxCDF	70648-26-9	0.950	J	5.28	0.0492	1
11031	123678-HxCDF	57117-44-9	0.955	JB	5.28	0.0482	1
11031	123789-HxCDF	72918-21-9	0.762	JB	5.28	0.0557	1
11031	234678-HxCDF	60851-34-5	1.24	JB	5.28	0.0486	1
11031	1234678-HpCDF	67562-39-4	17.1	B	5.28	0.0281	1
11031	1234789-HpCDF	55673-89-7	1.95	JB	5.28	0.0363	1
11031	OCDF	39001-02-0	50.0	B	10.6	0.0291	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	5.10				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	84	25 - 164
13C12-12378-PeCDD	88	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	76	17 - 157
13C12-2378-TCDF	90	24 - 169
13C12-12378-PeCDF	96	24 - 185
13C12-23478-PeCDF	94	21 - 178
13C12-123478-HxCDF	79	26 - 152
13C12-123678-HxCDF	83	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	82	29 - 147
13C12-1234678-HpCDF	84	28 - 143
13C12-1234789-HpCDF	75	26 - 138
13C12-OCDF	69	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473686
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:06 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58500 SDG#: PH193-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473686
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:06 by RR

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58500 SDG#: PH193-02BKG

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14143SLD026	05/28/2014 12:45	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14143SLD026	05/25/2014 18:15	Nicholas W Shroyer	1
13031	25a Formaldehyde by EPA 8315A	SW-846 8315A	1	141470006A	05/28/2014 19:36	Jessica L Miller	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141430013A	05/28/2014 20:20	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440034A	05/28/2014 02:36	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440034A	05/27/2014 06:30	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141430013A	05/24/2014 04:15	Olivia Arosemena	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	141470006A	05/27/2014 15:30	Wanda F Oswald	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440032A	05/28/2014 18:22	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440033A	05/30/2014 05:01	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440033A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440032A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14149004	06/03/2014 07:25	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14149004	05/29/2014 12:00	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473686
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:06 by RR

Submitted: 05/22/2014 09:25
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CDM Federal Programs Corp.
3201 Jermantown Road
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58500 SDG#: PH193-02BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06961	Nickel	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1
06971	Vanadium	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1
06972	Zinc	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141470637003	05/30/2014 13:03	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141470637003B	05/28/2014 20:52	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637003A	05/28/2014 20:52	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637003A	05/28/2014 20:52	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637003A	05/28/2014 20:52	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638001	06/04/2014 19:36	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637003	05/28/2014 08:00	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638001	06/01/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14142039402A	05/22/2014 21:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401A	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473687
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:06 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58500 SDG#: PH193-02MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	37		1.8	0.70	1
12969	Acenaphthylene	208-96-8	34		1.8	0.35	1
12969	Anthracene	120-12-7	39		1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	48		1.8	0.70	1
12969	Benzo(a)pyrene	50-32-8	43		1.8	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	62		1.8	0.70	1
12969	Benzo(e)pyrene	192-97-2	50		18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	37		1.8	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	42		1.8	0.70	1
12969	Butylbenzylphthalate	85-68-7	39		19	6.3	1
12969	Di-n-butylphthalate	84-74-2	40		19	6.3	1
12969	Chrysene	218-01-9	50		1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	26		1.8	0.70	1
12969	Diethylphthalate	84-66-2	35		19	6.3	1
12969	Dimethylphthalate	131-11-3	32		19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	52		19	6.3	1
12969	Fluoranthene	206-44-0	52		1.8	0.70	1
12969	Fluorene	86-73-7	29		1.8	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	46		1.8	0.70	1
12969	1-Methylnaphthalene	90-12-0	33		1.8	0.70	1
12969	2-Methylnaphthalene	91-57-6	36		1.8	0.70	1
12969	Naphthalene	91-20-3	35		1.8	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	31		1.8	0.70	1
12969	Di-n-octylphthalate	117-84-0	48		19	6.3	1
12969	Phenanthrene	85-01-8	49		1.8	0.70	1
12969	Pyrene	129-00-0	41		1.8	0.70	1
Aldehydes & Ketones	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
13031	Formaldehyde	50-00-0	100,000		21,000	13,000	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	3.0		0.86	0.18	1
10590	Alpha BHC	319-84-6	3.0		0.86	0.18	1
10590	Beta BHC	319-85-7	3.3		2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	3.1		0.86	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.2	1
10590	p,p-DDD	72-54-8	8.6		1.8	0.34	1
10590	p,p-DDE	72-55-9	9.6		1.8	0.34	1
10590	p,p-DDT	50-29-3	13		1.8	0.36	1
10590	Delta BHC	319-86-8	3.6		0.86	0.47	1
10590	Dieldrin	60-57-1	7.8		1.8	0.34	1
10590	Endosulfan I	959-98-8	3.3		0.86	0.23	1
10590	Endosulfan II	33213-65-9	7.0		1.8	0.34	1
10590	Endosulfan Sulfate	1031-07-8	6.8		1.8	0.34	1
10590	Endrin	72-20-8	6.9		1.8	0.34	1
10590	Endrin Aldehyde	7421-93-4	6.6		1.8	0.34	1
10590	Endrin Ketone	53494-70-5	6.2		1.9	0.62	1
10590	Heptachlor	76-44-8	3.1		0.86	0.18	1
10590	Heptachlor Epoxide	1024-57-3	3.9		0.86	0.18	1
10590	Methoxychlor	72-43-5	41		7.0	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473687
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:06 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58500 SDG#: PH193-02MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Mirex	2385-85-5	1.8	U	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	15	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	13	J	34	10	1
13099	PCB-1016	12674-11-2	130		18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	70		18	4.6	1
13099	PCB-1260	11096-82-5	150		18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.4		5.3	2.1	1
12952	EFH (C15-C20)	n.a.	11		5.3	2.1	1
12952	EFH (C21-C30)	n.a.	54		5.3	2.1	1
12952	EFH (C30-C40)	n.a.	95		11	4.2	1
12952	EFH (C8-C11)	n.a.	5.1	J	5.3	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	4.3	J	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	7.1		5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	29		5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	40		11	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	3.5	J	5.3	2.1	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	22,100		41.9	7.55	1
06944	Antimony	7440-36-0	22.5		4.19	0.774	1
06935	Arsenic	7440-38-2	24.8		4.19	0.733	1
06946	Barium	7440-39-3	321		1.05	0.0345	1
06947	Beryllium	7440-41-7	6.05		1.05	0.0701	1
07914	Boron	7440-42-8	212		10.5	0.879	1
06949	Cadmium	7440-43-9	6.61		1.05	0.0795	1
01650	Calcium	7440-70-2	4,010		20.9	3.50	1
06951	Chromium	7440-47-3	48.6		3.14	0.167	1
06952	Cobalt	7440-48-4	61.8		1.05	0.104	1
06953	Copper	7440-50-8	47.5		2.09	0.304	1
01654	Iron	7439-89-6	23,300		41.9	3.79	1
06955	Lead	7439-92-1	31.4		3.14	0.523	1
01656	Lithium	7439-93-2	131		4.2	0.36	1
01657	Magnesium	7439-95-4	5,070		10.5	1.75	1
06958	Manganese	7439-96-5	364		1.05	0.0869	1
06960	Molybdenum	7439-98-7	214		2.09	0.178	1
06961	Nickel	7440-02-0	73.2		2.09	0.136	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473687
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:06 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58500 SDG#: PH193-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**	**mg/kg**	**mg/kg**	
10145	Phosphorus	7723-14-0	515	10.5	3.02	1
01662	Potassium	7440-09-7	5,450	105	8.73	1
01667	Sodium	7440-23-5	1,170	105	17.5	1
06969	Tin	7440-31-5	405	10.5	0.230	1
06970	Titanium	7440-32-6	1,470	1.05	0.178	1
06971	Vanadium	7440-62-2	99.0	1.05	0.136	1
06972	Zinc	7440-66-6	187	4.19	0.209	1
10146	Zirconium	7440-67-7	106	5.23	0.879	1
	SW-846 6020A		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.26	0.419	0.105	2
06142	Silver	7440-22-4	11.2	0.209	0.0272	2
06144	Strontium	7440-24-6	36.7	0.419	0.0712	2
06145	Thallium	7440-28-0	0.775	0.209	0.0314	2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.224	0.0173	0.0104	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	5.4	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473687
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:06 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58500 SDG#: PH193-02MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	20.4	B	1.04	0.0704	1
11031	12378-PeCDD	40321-76-4	104		5.18	0.0998	1
11031	123478-HxCDD	39227-28-6	101	B	5.18	0.0892	1
11031	123678-HxCDD	57653-85-7	105		5.18	0.0922	1
11031	123789-HxCDD	19408-74-3	102		5.18	0.0831	1
11031	1234678-HpCDD	35822-46-9	277	B	5.18	0.127	1
11031	OCDD	3268-87-9	2,010	B	10.4	0.0792	1
11031	2378-TCDF	51207-31-9	21.1		1.04	0.155	1
11031	12378-PeCDF	57117-41-6	102	B	5.18	0.0555	1
11031	23478-PeCDF	57117-31-4	101	B	5.18	0.0563	1
11031	123478-HxCDF	70648-26-9	98.6		5.18	0.104	1
11031	123678-HxCDF	57117-44-9	98.2	B	5.18	0.0978	1
11031	123789-HxCDF	72918-21-9	95.6	B	5.18	0.102	1
11031	234678-HxCDF	60851-34-5	99.8	B	5.18	0.0955	1
11031	1234678-HpCDF	67562-39-4	119	B	5.18	0.0529	1
11031	1234789-HpCDF	55673-89-7	99.1	B	5.18	0.0714	1
11031	OCDF	39001-02-0	249	B	10.4	0.0372	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	82	25 - 164
13C12-12378-PeCDD	93	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	96	23 - 140
13C12-OCDD	99	17 - 157
13C12-2378-TCDF	87	24 - 169
13C12-12378-PeCDF	99	24 - 185
13C12-23478-PeCDF	99	21 - 178
13C12-123478-HxCDF	79	26 - 152
13C12-123678-HxCDF	85	26 - 123
13C12-234678-HxCDF	83	28 - 136
13C12-123789-HxCDF	86	29 - 147
13C12-1234678-HpCDF	99	28 - 143
13C12-1234789-HpCDF	82	26 - 138
13C12-OCDF	79	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473687
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:06 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58500 SDG#: PH193-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
S	*Saturation of detection signal*					

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473687
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:06 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58500 SDG#: PH193-02MS

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14143SLD026	05/28/2014 13:17	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14143SLD026	05/25/2014 18:15	Nicholas W Shroyer	1
13031	25a Formaldehyde by EPA 8315A	SW-846 8315A	1	141470006A	05/28/2014 19:44	Jessica L Miller	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141430013A	05/28/2014 20:34	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440034A	05/28/2014 02:55	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440034A	05/27/2014 06:30	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141430013A	05/24/2014 04:15	Olivia Arosemena	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	141470006A	05/27/2014 15:30	Wanda F Oswald	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440032A	05/28/2014 18:44	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440033A	05/30/2014 05:22	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440033A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440032A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14149004	06/03/2014 10:15	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14149004	05/29/2014 12:00	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473687
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:06 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58500 SDG#: PH193-02MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06961	Nickel	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1
06971	Vanadium	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1
06972	Zinc	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141470637003	05/30/2014 13:14	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141470637003B	05/28/2014 20:59	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637003A	05/28/2014 20:59	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637003A	05/28/2014 20:59	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637003A	05/28/2014 20:59	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638001	06/04/2014 19:42	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637003	05/28/2014 08:00	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638001	06/01/2014 01:30	Annamaria Kuhns	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401A	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473688
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:06 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58500 SDG#: PH193-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	35		1.8	0.70	1
12969	Acenaphthylene	208-96-8	33		1.8	0.35	1
12969	Anthracene	120-12-7	36		1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	38		1.8	0.70	1
12969	Benzo(a)pyrene	50-32-8	33		1.8	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	43		1.8	0.70	1
12969	Benzo(e)pyrene	192-97-2	31		18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	19		1.8	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	35		1.8	0.70	1
12969	Butylbenzylphthalate	85-68-7	39		19	6.3	1
12969	Di-n-butylphthalate	84-74-2	39		19	6.3	1
12969	Chrysene	218-01-9	34		1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	24		1.8	0.70	1
12969	Diethylphthalate	84-66-2	34		19	6.3	1
12969	Dimethylphthalate	131-11-3	30		19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	70		19	6.3	1
12969	Fluoranthene	206-44-0	37		1.8	0.70	1
12969	Fluorene	86-73-7	29		1.8	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	23		1.8	0.70	1
12969	1-Methylnaphthalene	90-12-0	31		1.8	0.70	1
12969	2-Methylnaphthalene	91-57-6	33		1.8	0.70	1
12969	Naphthalene	91-20-3	33		1.8	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	30		1.8	0.70	1
12969	Di-n-octylphthalate	117-84-0	83		19	6.3	1
12969	Phenanthrene	85-01-8	35		1.8	0.70	1
12969	Pyrene	129-00-0	31		1.8	0.70	1
Aldehydes & Ketones	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
13031	Formaldehyde	50-00-0	110,000		21,000	13,000	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	2.6		0.86	0.18	1
10590	Alpha BHC	319-84-6	2.5		0.86	0.18	1
10590	Beta BHC	319-85-7	3.0		2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	2.8		0.86	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.2	1
10590	p,p-DDD	72-54-8	7.1		1.8	0.34	1
10590	p,p-DDE	72-55-9	6.8		1.8	0.34	1
10590	p,p-DDT	50-29-3	7.7		1.8	0.36	1
10590	Delta BHC	319-86-8	3.2		0.86	0.47	1
10590	Dieldrin	60-57-1	6.4		1.8	0.34	1
10590	Endosulfan I	959-98-8	2.8		0.86	0.23	1
10590	Endosulfan II	33213-65-9	5.7		1.8	0.34	1
10590	Endosulfan Sulfate	1031-07-8	6.0		1.8	0.34	1
10590	Endrin	72-20-8	6.2		1.8	0.34	1
10590	Endrin Aldehyde	7421-93-4	5.2		1.8	0.34	1
10590	Endrin Ketone	53494-70-5	5.4		1.9	0.62	1
10590	Heptachlor	76-44-8	2.7		0.86	0.18	1
10590	Heptachlor Epoxide	1024-57-3	3.0		0.86	0.18	1
10590	Methoxychlor	72-43-5	36		7.0	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473688
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:06 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58500 SDG#: PH193-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Mirex	2385-85-5	1.8	U	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	15	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	150		18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	33		18	4.6	1
13099	PCB-1260	11096-82-5	150		18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	J	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	9.5		5.3	2.1	1
12952	EFH (C21-C30)	n.a.	24		5.3	2.1	1
12952	EFH (C30-C40)	n.a.	43		11	4.2	1
12952	EFH (C8-C11)	n.a.	4.8	J	5.3	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	3.7	J	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.9		5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	12		5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	17		11	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	2.9	J	5.3	2.1	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	28,500		41.1	7.40	1
06944	Antimony	7440-36-0	14.1		4.11	0.759	1
06935	Arsenic	7440-38-2	25.2		4.11	0.718	1
06946	Barium	7440-39-3	357		1.03	0.0339	1
06947	Beryllium	7440-41-7	6.22		1.03	0.0688	1
07914	Boron	7440-42-8	205		10.3	0.862	1
06949	Cadmium	7440-43-9	5.81		1.03	0.0780	1
01650	Calcium	7440-70-2	4,380		20.5	3.43	1
06951	Chromium	7440-47-3	53.4		3.08	0.164	1
06952	Cobalt	7440-48-4	59.4		1.03	0.102	1
06953	Copper	7440-50-8	45.4		2.05	0.298	1
01654	Iron	7439-89-6	31,900		82.1	7.43	2
06955	Lead	7439-92-1	24.3		3.08	0.513	1
01656	Lithium	7439-93-2	136		4.1	0.35	1
01657	Magnesium	7439-95-4	6,150		10.3	1.71	1
06958	Manganese	7439-96-5	542		1.03	0.0852	1
06960	Molybdenum	7439-98-7	191		2.05	0.174	1
06961	Nickel	7440-02-0	70.7		2.05	0.133	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473688
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:06 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58500 SDG#: PH193-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**	**mg/kg**	**mg/kg**	
10145	Phosphorus	7723-14-0	509	10.3	2.97	1
01662	Potassium	7440-09-7	6,200	103	8.56	1
01667	Sodium	7440-23-5	1,160	103	17.1	1
06969	Tin	7440-31-5	361	10.3	0.226	1
06970	Titanium	7440-32-6	1,650	1.03	0.174	1
06971	Vanadium	7440-62-2	109	1.03	0.133	1
06972	Zinc	7440-66-6	130	4.11	0.205	1
10146	Zirconium	7440-67-7	104	5.13	0.862	1
	SW-846 6020A		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.15	0.411	0.103	2
06142	Silver	7440-22-4	10.6	0.205	0.0267	2
06144	Strontium	7440-24-6	40.4	0.411	0.0698	2
06145	Thallium	7440-28-0	0.791	0.205	0.0308	2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.259	0.0169	0.0102	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	5.4	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473688
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:06 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58500 SDG#: PH193-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	21.0	B	1.04	0.0539	1
11031	12378-PeCDD	40321-76-4	106		5.22	0.0529	1
11031	123478-HxCDD	39227-28-6	104	B	5.22	0.0526	1
11031	123678-HxCDD	57653-85-7	101		5.22	0.0572	1
11031	123789-HxCDD	19408-74-3	102		5.22	0.0483	1
11031	1234678-HpCDD	35822-46-9	116	B	5.22	0.0618	1
11031	OCDD	3268-87-9	402	B	10.4	0.0468	1
11031	2378-TCDF	51207-31-9	21.4		1.04	0.0723	1
11031	12378-PeCDF	57117-41-6	103	B	5.22	0.0349	1
11031	23478-PeCDF	57117-31-4	102	B	5.22	0.0330	1
11031	123478-HxCDF	70648-26-9	99.8		5.22	0.0679	1
11031	123678-HxCDF	57117-44-9	102	B	5.22	0.0625	1
11031	123789-HxCDF	72918-21-9	99.0	B	5.22	0.0775	1
11031	234678-HxCDF	60851-34-5	101	B	5.22	0.0641	1
11031	1234678-HpCDF	67562-39-4	101	B	5.22	0.0480	1
11031	1234789-HpCDF	55673-89-7	97.1	B	5.22	0.0719	1
11031	OCDF	39001-02-0	195	B	10.4	0.0383	1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	85	25 - 164
13C12-12378-PeCDD	94	25 - 181
13C12-123478-HxCDD	88	32 - 141
13C12-123678-HxCDD	90	28 - 130
13C12-123789-HxCDD	101	28 - 130
13C12-1234678-HpCDD	98	23 - 140
13C12-OCDD	92	17 - 157
13C12-2378-TCDF	90	24 - 169
13C12-12378-PeCDF	101	24 - 185
13C12-23478-PeCDF	98	21 - 178
13C12-123478-HxCDF	85	26 - 152
13C12-123678-HxCDF	91	26 - 123
13C12-234678-HxCDF	87	28 - 136
13C12-123789-HxCDF	83	29 - 147
13C12-1234678-HpCDF	103	28 - 143
13C12-1234789-HpCDF	77	26 - 138
13C12-OCDF	67	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473688
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:06 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58500 SDG#: PH193-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
S	*Saturation of detection signal*					

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473688
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:06 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58500 SDG#: PH193-02MSD

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14143SLD026	05/28/2014 13:49	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14143SLD026	05/25/2014 18:15	Nicholas W Shroyer	1
13031	25a Formaldehyde by EPA 8315A	SW-846 8315A	1	141470006A	05/28/2014 19:53	Jessica L Miller	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141430013A	05/28/2014 20:47	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440034A	05/28/2014 03:13	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440034A	05/27/2014 06:30	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141430013A	05/24/2014 04:15	Olivia Arosemena	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	141470006A	05/27/2014 15:30	Wanda F Oswald	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440032A	05/28/2014 19:05	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440033A	05/30/2014 05:43	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440033A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440032A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14149004	06/03/2014 11:12	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14149004	05/29/2014 12:00	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141470637003	05/30/2014 13:18	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141470637003	05/30/2014 13:18	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141470637003	05/30/2014 13:18	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141470637003	05/30/2014 13:18	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141470637003	05/30/2014 13:18	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141470637003	05/30/2014 13:18	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141470637003	05/30/2014 13:18	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141470637003	05/30/2014 13:18	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141470637003	05/30/2014 13:18	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141470637003	05/30/2014 13:18	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141470637003	05/30/2014 13:18	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141470637003	05/30/2014 22:29	John W Yanzuk II	2
06955	Lead	SW-846 6010C	1	141470637003	05/30/2014 13:18	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141470637003	05/30/2014 13:18	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141470637003	05/30/2014 13:18	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141470637003	05/30/2014 13:18	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141470637003	05/30/2014 13:18	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473688
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:06 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58500 SDG#: PH193-02MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06961	Nickel	SW-846 6010C	1	141470637003	05/30/2014 13:18	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141470637003	05/30/2014 13:18	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141470637003	05/30/2014 13:18	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141470637003	05/30/2014 13:18	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141470637003	05/30/2014 13:18	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141470637003	05/30/2014 13:18	Eric L Eby	1
06971	Vanadium	SW-846 6010C	1	141470637003	05/30/2014 13:18	Eric L Eby	1
06972	Zinc	SW-846 6010C	1	141470637003	05/30/2014 13:18	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141470637003	05/30/2014 13:18	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141470637003B	05/28/2014 21:01	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637003A	05/28/2014 21:01	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637003A	05/28/2014 21:01	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637003A	05/28/2014 21:01	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638001	06/04/2014 19:44	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637003	05/28/2014 08:00	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638001	06/01/2014 01:30	Annamaria Kuhns	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401A	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-0.0-0.5DUP Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473689
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:06 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58500 SDG#: PH193-02DUP

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	17,300		42.3	7.62	1
06944	Antimony	7440-36-0	4.23	U	4.23	0.782	1
06935	Arsenic	7440-38-2	7.51		4.23	0.740	1
06946	Barium	7440-39-3	102		1.06	0.0349	1
06947	Beryllium	7440-41-7	0.624	J	1.06	0.0708	1
07914	Boron	7440-42-8	4.48	J	10.6	0.888	1
06949	Cadmium	7440-43-9	0.747	J	1.06	0.0803	1
01650	Calcium	7440-70-2	3,400		21.1	3.53	1
06951	Chromium	7440-47-3	24.1		3.17	0.169	1
06952	Cobalt	7440-48-4	5.99		1.06	0.105	1
06953	Copper	7440-50-8	16.9		2.11	0.307	1
01654	Iron	7439-89-6	22,900		42.3	3.83	1
06955	Lead	7439-92-1	12.6		3.17	0.529	1
01656	Lithium	7439-93-2	24.9		4.2	0.36	1
01657	Magnesium	7439-95-4	4,750		10.6	1.77	1
06958	Manganese	7439-96-5	243		1.06	0.0877	1
06960	Molybdenum	7439-98-7	0.382	J	2.11	0.180	1
06961	Nickel	7440-02-0	15.6		2.11	0.137	1
10145	Phosphorus	7723-14-0	409		10.6	3.05	1
01662	Potassium	7440-09-7	3,910		106	8.82	1
01667	Sodium	7440-23-5	102	J	106	17.7	1
06969	Tin	7440-31-5	2.56	J	10.6	0.233	1
06970	Titanium	7440-32-6	1,080		1.06	0.180	1
06971	Vanadium	7440-62-2	40.0		1.06	0.137	1
06972	Zinc	7440-66-6	97.0		4.23	0.211	1
10146	Zirconium	7440-67-7	5.30		5.29	0.888	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.156	J	0.423	0.106	2
06142	Silver	7440-22-4	0.521		0.211	0.0275	2
06144	Strontium	7440-24-6	24.2		0.423	0.0719	2
06145	Thallium	7440-28-0	0.276		0.211	0.0317	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0533		0.0175	0.0105	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.22		0.0100	0.0100	1
	The pH was measured in water at 22.7 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	5.4		0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	5.6		0.10	0.10	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-0.0-0.5DUP Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473689
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:06 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58500 SDG#: PH193-02DUP

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
06971	Vanadium	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
06972	Zinc	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141470637003	05/30/2014 13:10	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141470637003B	05/28/2014 20:57	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637003A	05/28/2014 20:57	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637003A	05/28/2014 20:57	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637003A	05/28/2014 20:57	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638001	06/04/2014 19:40	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637003	05/28/2014 08:00	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638001	06/01/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14142039402A	05/22/2014 21:20	Luz M Groff	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401A	05/28/2014 20:40	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401A	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-885-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473690
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:16 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

88500 SDG#: PH193-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70	1
12969	Acenaphthylene	208-96-8	0.49	J	1.7	0.35	1
12969	Anthracene	120-12-7	2.5		1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	7.4		1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	9.1		1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	24		1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	18		18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	20		1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	6.2		1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	20		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	3.0		1.7	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	22		19	6.3	1
12969	Fluoranthene	206-44-0	15		1.7	0.70	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	22		1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.3	J	1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	2.4		1.7	0.70	1
12969	Naphthalene	91-20-3	2.6		1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	12		1.7	0.70	1
12969	Pyrene	129-00-0	11		1.7	0.70	1
Aldehydes & Ketones	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
13031	Formaldehyde	50-00-0	21,000	U	21,000	13,000	1
Reporting limits were raised due to interference from the sample matrix.							
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.86	U	0.86	0.18	1
10590	Alpha BHC	319-84-6	0.86	U	0.86	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	0.99	1
10590	Gamma BHC - Lindane	58-89-9	0.86	U	0.86	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.1	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.40	1
10590	p,p-DDE	72-55-9	1.6	J	1.8	0.34	1
10590	p,p-DDT	50-29-3	6.1		1.8	0.36	1
10590	Delta BHC	319-86-8	0.86	U	0.86	0.46	1
10590	Dieldrin	60-57-1	1.2	J	1.8	0.34	1
10590	Endosulfan I	959-98-8	0.86	U	0.86	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.34	1
10590	Endrin	72-20-8	1.8	U	1.8	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.41	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.62	1
10590	Heptachlor	76-44-8	0.86	U	0.86	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.86	U	0.86	0.22	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-885-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473690
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:16 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

88500 SDG#: PH193-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Methoxychlor	72-43-5	6.9	U	6.9	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1
	Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	22	J	34	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.2	1
13099	PCB-1242	53469-21-9	18	U	18	4.2	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	30		18	4.5	1
13099	PCB-1260	11096-82-5	18	U	18	4.0	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	26	U	26	10	5
12952	EFH (C15-C20)	n.a.	13	J	26	10	5
12952	EFH (C21-C30)	n.a.	150		26	10	5
12952	EFH (C30-C40)	n.a.	350		52	21	5
12952	EFH (C8-C11)	n.a.	26	U	26	10	5
13197	EFH C12-C14 w/ SiGel	n.a.	10	U	10	4.2	2
13197	EFH C15-C20 w/ SiGel	n.a.	10	U	10	4.2	2
13197	EFH C21-C30 w/ SiGel	n.a.	55		10	4.2	2
13197	EFH C30-C40 w/ SiGel	n.a.	100		21	8.4	2
13197	EFH C8-C11 w/ SiGel	n.a.	10	U	10	4.2	2
	Due to the dilution of the sample extract, capric acid recovery can not be determined.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	17,900		41.1	7.41	1
06944	Antimony	7440-36-0	4.11	U	4.11	0.760	1
06935	Arsenic	7440-38-2	8.49		4.11	0.719	1
06946	Barium	7440-39-3	112		1.03	0.0339	1
06947	Beryllium	7440-41-7	0.652	J	1.03	0.0689	1
07914	Boron	7440-42-8	5.55	J	10.3	0.863	1
06949	Cadmium	7440-43-9	0.969	J	1.03	0.0781	1
01650	Calcium	7440-70-2	3,770		20.6	3.43	1
06951	Chromium	7440-47-3	26.8		3.08	0.164	1
06952	Cobalt	7440-48-4	6.64		1.03	0.102	1
06953	Copper	7440-50-8	26.7		2.06	0.298	1
01654	Iron	7439-89-6	23,000		41.1	3.72	1
06955	Lead	7439-92-1	15.0		3.08	0.514	1
01656	Lithium	7439-93-2	25.1		4.1	0.35	1
01657	Magnesium	7439-95-4	5,130		10.3	1.72	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-885-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473690
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:16 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

88500 SDG#: PH193-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
06958	Manganese	7439-96-5	290		1.03	0.0853	1
06960	Molybdenum	7439-98-7	0.331	J	2.06	0.175	1
06961	Nickel	7440-02-0	17.3		2.06	0.134	1
10145	Phosphorus	7723-14-0	448		10.3	2.97	1
01662	Potassium	7440-09-7	4,090		103	8.57	1
01667	Sodium	7440-23-5	96.9	J	103	17.2	1
06969	Tin	7440-31-5	2.30	J	10.3	0.226	1
06970	Titanium	7440-32-6	1,140		1.03	0.175	1
06971	Vanadium	7440-62-2	42.1		1.03	0.134	1
06972	Zinc	7440-66-6	111		4.11	0.206	1
10146	Zirconium	7440-67-7	4.92	J	5.14	0.863	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.189	J	0.411	0.103	2
06142	Silver	7440-22-4	0.714		0.206	0.0267	2
06144	Strontium	7440-24-6	27.0		0.411	0.0699	2
06145	Thallium	7440-28-0	0.318		0.206	0.0308	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0627		0.0167	0.0100	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.29		0.0100	0.0100	1
	The pH was measured in water at 22.6 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.6		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-885-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473690
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:16 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

88500 SDG#: PH193-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0875	JBQ	1.02	0.0543	1
11031	12378-PeCDD	40321-76-4	1.11	J	5.10	0.0862	1
11031	123478-HxCDD	39227-28-6	2.10	JB	5.10	0.0632	1
11031	123678-HxCDD	57653-85-7	8.66		5.10	0.0645	1
11031	123789-HxCDD	19408-74-3	4.30	J	5.10	0.0590	1
11031	1234678-HpCDD	35822-46-9	197	B	5.10	0.143	1
11031	OCDD	3268-87-9	2,050	B	10.2	0.0881	1
11031	2378-TCDF	51207-31-9	0.690	J	1.02	0.130	1
11031	12378-PeCDF	57117-41-6	1.81	JB	5.10	0.0525	1
11031	23478-PeCDF	57117-31-4	1.15	JB	5.10	0.0502	1
11031	123478-HxCDF	70648-26-9	1.95	J	5.10	0.0794	1
11031	123678-HxCDF	57117-44-9	1.64	JB	5.10	0.0766	1
11031	123789-HxCDF	72918-21-9	1.04	JB	5.10	0.0770	1
11031	234678-HxCDF	60851-34-5	2.15	JB	5.10	0.0743	1
11031	1234678-HpCDF	67562-39-4	32.8	B	5.10	0.0414	1
11031	1234789-HpCDF	55673-89-7	3.43	JB	5.10	0.0532	1
11031	OCDF	39001-02-0	104	B	10.2	0.0317	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	6.74				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	84	25 - 164
13C12-12378-PeCDD	94	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	89	17 - 157
13C12-2378-TCDF	87	24 - 169
13C12-12378-PeCDF	99	24 - 185
13C12-23478-PeCDF	100	21 - 178
13C12-123478-HxCDF	81	26 - 152
13C12-123678-HxCDF	84	26 - 123
13C12-234678-HxCDF	83	28 - 136
13C12-123789-HxCDF	88	29 - 147
13C12-1234678-HpCDF	94	28 - 143
13C12-1234789-HpCDF	83	26 - 138
13C12-OCDF	80	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-885-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473690
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:16 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

88500 SDG#: PH193-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-885-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473690
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:16 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

88500 SDG#: PH193-03

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14143SLD026	05/28/2014 12:13	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14143SLD026	05/25/2014 18:15	Nicholas W Shroyer	1
13031	25a Formaldehyde by EPA 8315A	SW-846 8315A	1	141470006A	05/28/2014 20:01	Jessica L Miller	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141430013A	05/28/2014 21:01	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440034A	05/28/2014 03:32	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440034A	05/27/2014 06:30	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141430013A	05/24/2014 04:15	Olivia Arosemena	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	141470006A	05/27/2014 15:30	Wanda F Oswald	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440032A	05/28/2014 20:54	Heather E Williams	5
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440033A	05/30/2014 06:26	Heather E Williams	2
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440033A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440032A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14149004	06/03/2014 12:09	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14149004	05/29/2014 12:00	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-885-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473690
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:16 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

88500 SDG#: PH193-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06961	Nickel	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1
06971	Vanadium	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1
06972	Zinc	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141470637003	05/30/2014 13:26	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141470637003B	05/28/2014 21:06	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637003A	05/28/2014 21:06	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637003A	05/28/2014 21:06	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637003A	05/28/2014 21:06	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638001	06/04/2014 19:50	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637003	05/28/2014 08:00	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638001	06/01/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14142039402A	05/22/2014 21:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401A	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473691
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:21 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58540 SDG#: PH193-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.9	U	1.9	0.76	1
12969	Acenaphthylene	208-96-8	1.9	U	1.9	0.38	1
12969	Anthracene	120-12-7	1.9	U	1.9	0.38	1
12969	Benzo(a)anthracene	56-55-3	1.9	U	1.9	0.76	1
12969	Benzo(a)pyrene	50-32-8	1.9	U	1.9	0.76	1
12969	Benzo(b)fluoranthene	205-99-2	1.9	U	1.9	0.76	1
12969	Benzo(e)pyrene	192-97-2	19	U	19	3.8	1
12969	Benzo(g,h,i)perylene	191-24-2	1.9	U	1.9	0.76	1
12969	Benzo(k)fluoranthene	207-08-9	1.9	U	1.9	0.76	1
12969	Butylbenzylphthalate	85-68-7	21	U	21	6.9	1
12969	Di-n-butylphthalate	84-74-2	21	U	21	6.9	1
12969	Chrysene	218-01-9	1.9	U	1.9	0.38	1
12969	Dibenz(a,h)anthracene	53-70-3	1.9	U	1.9	0.76	1
12969	Diethylphthalate	84-66-2	21	U	21	6.9	1
12969	Dimethylphthalate	131-11-3	21	U	21	6.9	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	21	U	21	6.9	1
12969	Fluoranthene	206-44-0	1.9	U	1.9	0.76	1
12969	Fluorene	86-73-7	1.9	U	1.9	0.76	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.9	U	1.9	0.76	1
12969	1-Methylnaphthalene	90-12-0	1.9	U	1.9	0.76	1
12969	2-Methylnaphthalene	91-57-6	1.9	U	1.9	0.76	1
12969	Naphthalene	91-20-3	1.9	U	1.9	0.76	1
12969	N-Nitrosodimethylamine	62-75-9	1.9	U	1.9	0.76	1
12969	Di-n-octylphthalate	117-84-0	21	U	21	6.9	1
12969	Phenanthrene	85-01-8	1.9	U	1.9	0.76	1
12969	Pyrene	129-00-0	1.9	U	1.9	0.76	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	24.7
Aldehydes & Ketones	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
13031	Formaldehyde	50-00-0	2,300	U	2,300	1,400	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.93	U	0.93	0.19	1
10590	Alpha BHC	319-84-6	0.93	U	0.93	0.19	1
10590	Beta BHC	319-85-7	2.1	U	2.1	1.1	1
10590	Gamma BHC - Lindane	58-89-9	0.93	U	0.93	0.19	1
10590	Chlordane	57-74-9	19	U	19	4.5	1
10590	p,p-DDD	72-54-8	1.9	U	1.9	0.37	1
10590	p,p-DDE	72-55-9	1.9	U	1.9	0.37	1
10590	p,p-DDT	50-29-3	1.9	U	1.9	0.39	1
10590	Delta BHC	319-86-8	0.93	U	0.93	0.51	1
10590	Dieldrin	60-57-1	1.9	U	1.9	0.37	1
10590	Endosulfan I	959-98-8	0.93	U	0.93	0.25	1
10590	Endosulfan II	33213-65-9	1.9	U	1.9	0.37	1
10590	Endosulfan Sulfate	1031-07-8	1.9	U	1.9	0.37	1
10590	Endrin	72-20-8	1.9	U	1.9	0.37	1
10590	Endrin Aldehyde	7421-93-4	1.9	U	1.9	0.37	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473691
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:21 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58540 SDG#: PH193-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Endrin Ketone	53494-70-5	2.0	U	2.0	0.68	1
10590	Heptachlor	76-44-8	0.93	U	0.93	0.19	1
10590	Heptachlor Epoxide	1024-57-3	0.93	U	0.93	0.19	1
10590	Methoxychlor	72-43-5	7.5	U	7.5	1.9	1
10590	Mirex	2385-85-5	1.9	U	1.9	0.39	1
10590	Toxaphene	8001-35-2	37	U	37	16	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	37	U	37	11	1
13099	Aroclor 5442	12642-23-8	37	U	37	11	1
13099	Aroclor 5460	11126-42-4	37	U	37	11	1
13099	PCB-1016	12674-11-2	19	U	19	3.7	1
13099	PCB-1221	11104-28-2	19	U	19	5.7	1
13099	PCB-1232	11141-16-5	19	U	19	4.6	1
13099	PCB-1242	53469-21-9	19	U	19	4.6	1
13099	PCB-1248	12672-29-6	19	U	19	3.7	1
13099	PCB-1254	11097-69-1	19	U	19	5.0	1
13099	PCB-1260	11096-82-5	19	U	19	4.4	1
13099	PCB-1262	37324-23-5	19	U	19	3.7	1
13099	PCB-1268	11100-14-4	19	U	19	3.7	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.7	U	5.7	2.3	1
12952	EFH (C15-C20)	n.a.	5.7	U	5.7	2.3	1
12952	EFH (C21-C30)	n.a.	5.7	U	5.7	2.3	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.6	1
12952	EFH (C8-C11)	n.a.	5.7	U	5.7	2.3	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.7	U	5.7	2.3	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.7	U	5.7	2.3	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.7	U	5.7	2.3	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.6	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.7	U	5.7	2.3	1
	The reverse surrogate, capric acid, is present at <1%.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	23,900		44.4	8.01	1
06944	Antimony	7440-36-0	4.44	U	4.44	0.822	1
06935	Arsenic	7440-38-2	11.7		4.44	0.778	1
06946	Barium	7440-39-3	136		1.11	0.0367	1
06947	Beryllium	7440-41-7	1.15		1.11	0.0744	1
07914	Boron	7440-42-8	6.03	J	11.1	0.933	1
06949	Cadmium	7440-43-9	0.763	J	1.11	0.0844	1
01650	Calcium	7440-70-2	17,000		22.2	3.71	1
06951	Chromium	7440-47-3	42.3		3.33	0.178	1
06952	Cobalt	7440-48-4	9.69		1.11	0.110	1
06953	Copper	7440-50-8	26.0		2.22	0.322	1
01654	Iron	7439-89-6	38,900		88.9	8.04	2
06955	Lead	7439-92-1	9.63		3.33	0.555	1
01656	Lithium	7439-93-2	48.5		4.4	0.38	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473691
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:21 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58540 SDG#: PH193-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01657	Magnesium	7439-95-4	8,650		11.1	1.86	1
06958	Manganese	7439-96-5	310		1.11	0.0922	1
06960	Molybdenum	7439-98-7	2.22	U	2.22	0.189	1
06961	Nickel	7440-02-0	32.9		2.22	0.144	1
10145	Phosphorus	7723-14-0	672		11.1	3.21	1
01662	Potassium	7440-09-7	2,300		111	9.26	1
01667	Sodium	7440-23-5	793		111	18.6	1
06969	Tin	7440-31-5	3.03	J	11.1	0.244	1
06970	Titanium	7440-32-6	1,180		1.11	0.189	1
06971	Vanadium	7440-62-2	56.1		1.11	0.144	1
06972	Zinc	7440-66-6	94.1		4.44	0.222	1
10146	Zirconium	7440-67-7	9.12		5.55	0.933	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.294	J	0.444	0.111	2
06142	Silver	7440-22-4	0.584		0.222	0.0289	2
06144	Strontium	7440-24-6	62.2		0.444	0.0755	2
06145	Thallium	7440-28-0	0.363		0.222	0.0333	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0123	J	0.0187	0.0112	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.24		0.0100	0.0100	1
	The pH was measured in water at 22.2 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	12.6		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473691
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:21 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58540 SDG#: PH193-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.13	U	1.13	0.0559	1
11031	12378-PeCDD	40321-76-4	0.0931	JQ	5.66	0.0491	1
11031	123478-HxCDD	39227-28-6	0.0647	JBQ	5.66	0.0273	1
11031	123678-HxCDD	57653-85-7	0.0755	J	5.66	0.0290	1
11031	123789-HxCDD	19408-74-3	0.0701	JQ	5.66	0.0271	1
11031	1234678-HpCDD	35822-46-9	0.500	JBQ	5.66	0.0340	1
11031	OCDD	3268-87-9	4.25	JB	11.3	0.0382	1
11031	2378-TCDF	51207-31-9	1.13	U	1.13	0.0411	1
11031	12378-PeCDF	57117-41-6	0.0883	JBQ	5.66	0.0208	1
11031	23478-PeCDF	57117-31-4	0.0216	JBQ	5.66	0.0203	1
11031	123478-HxCDF	70648-26-9	0.0625	J	5.66	0.0273	1
11031	123678-HxCDF	57117-44-9	0.0523	JBQ	5.66	0.0231	1
11031	123789-HxCDF	72918-21-9	0.0526	JB	5.66	0.0300	1
11031	234678-HxCDF	60851-34-5	0.0478	JBQ	5.66	0.0246	1
11031	1234678-HpCDF	67562-39-4	0.115	JBQ	5.66	0.0143	1
11031	1234789-HpCDF	55673-89-7	0.0440	JBQ	5.66	0.0269	1
11031	OCDF	39001-02-0	0.272	JBQ	11.3	0.0424	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0203				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	83	25 - 164
13C12-12378-PeCDD	95	25 - 181
13C12-123478-HxCDD	87	32 - 141
13C12-123678-HxCDD	90	28 - 130
13C12-123789-HxCDD	92	28 - 130
13C12-1234678-HpCDD	96	23 - 140
13C12-OCDD	93	17 - 157
13C12-2378-TCDF	85	24 - 169
13C12-12378-PeCDF	102	24 - 185
13C12-23478-PeCDF	95	21 - 178
13C12-123478-HxCDF	76	26 - 152
13C12-123678-HxCDF	88	26 - 123
13C12-234678-HxCDF	83	28 - 136
13C12-123789-HxCDF	75	29 - 147
13C12-1234678-HpCDF	111	28 - 143
13C12-1234789-HpCDF	68	26 - 138
13C12-OCDF	57	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473691
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:21 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58540 SDG#: PH193-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473691
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:21 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58540 SDG#: PH193-04

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14143SLD026	05/28/2014 07:58	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14143SLD026	05/25/2014 18:15	Nicholas W Shroyer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147B16A	05/29/2014 07:53	Marie D Beamenderfer	24.7
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414234587	05/22/2014 19:02	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414234587	05/22/2014 19:03	Lisa J Cooke	n.a.
13031	25a Formaldehyde by EPA 8315A	SW-846 8315A	1	141470006A	05/28/2014 20:10	Jessica L Miller	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141430013A	05/28/2014 21:15	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440034A	05/28/2014 03:50	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440034A	05/27/2014 06:30	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141430013A	05/24/2014 04:15	Olivia Arosemena	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	141470006A	05/27/2014 15:30	Wanda F Oswald	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440032A	05/28/2014 03:18	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440033A	05/30/2014 01:26	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440033A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440032A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14149004	06/03/2014 13:05	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14149004	05/29/2014 12:00	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141470637003	05/30/2014 13:30	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141470637003	05/30/2014 13:30	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141470637003	05/30/2014 13:30	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141470637003	05/30/2014 13:30	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141470637003	05/30/2014 13:30	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141470637003	05/30/2014 13:30	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141470637003	05/30/2014 13:30	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141470637003	05/30/2014 13:30	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141470637003	05/30/2014 13:30	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141470637003	05/30/2014 13:30	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141470637003	05/30/2014 13:30	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141470637003	05/30/2014 22:33	John W Yanzuk II	2
06955	Lead	SW-846 6010C	1	141470637003	05/30/2014 13:30	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-SA5D-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473691
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 09:21 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58540 SDG#: PH193-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01656	Lithium	SW-846 6010C	1	141470637003	05/30/2014 13:30	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141470637003	05/30/2014 13:30	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141470637003	05/30/2014 13:30	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141470637003	05/30/2014 13:30	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141470637003	05/30/2014 13:30	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141470637003	05/30/2014 13:30	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141470637003	05/30/2014 13:30	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141470637003	05/30/2014 13:30	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141470637003	05/30/2014 13:30	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141470637003	05/30/2014 13:30	Eric L Eby	1
06971	Vanadium	SW-846 6010C	1	141470637003	05/30/2014 13:30	Eric L Eby	1
06972	Zinc	SW-846 6010C	1	141470637003	05/30/2014 13:30	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141470637003	05/30/2014 13:30	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141470637003B	05/28/2014 21:09	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637003A	05/28/2014 21:09	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637003A	05/28/2014 21:09	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637003A	05/28/2014 21:09	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638001	06/04/2014 19:52	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637003	05/28/2014 08:00	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638001	06/01/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14142039402A	05/22/2014 21:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401A	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-584-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473692
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 07:52 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58400 SDG#: PH193-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70	1
12969	Acenaphthylene	208-96-8	1.6	J	1.7	0.35	1
12969	Anthracene	120-12-7	12		1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	25		1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	31		1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	73		1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	64		18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	97		1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	22		1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	41		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	14		1.7	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	22		19	6.3	1
12969	Fluoranthene	206-44-0	49		1.7	0.70	1
12969	Fluorene	86-73-7	0.81	J	1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	110		1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	3.7		1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	5.8		1.7	0.70	1
12969	Naphthalene	91-20-3	5.7		1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	48		1.7	0.70	1
12969	Pyrene	129-00-0	30		1.7	0.70	1
Aldehydes & Ketones	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
13031	Formaldehyde	50-00-0	2,100	U	2,100	1,300	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.85	U	0.85	0.18	1
10590	Alpha BHC	319-84-6	0.85	U	0.85	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	0.99	1
10590	Gamma BHC - Lindane	58-89-9	0.21	J	0.85	0.18	1
10590	Chlordane	57-74-9	19	U	19	19	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.95	1
10590	p,p-DDE	72-55-9	6.5		1.8	0.34	1
10590	p,p-DDT	50-29-3	12	U	12	12	1
10590	Delta BHC	319-86-8	0.85	U	0.85	0.46	1
10590	Dieldrin	60-57-1	2.8	U	2.8	2.8	1
10590	Endosulfan I	959-98-8	0.85	U	0.85	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.54	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.34	1
10590	Endrin	72-20-8	1.8	U	1.8	0.83	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.95	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.62	1
10590	Heptachlor	76-44-8	0.85	U	0.85	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.85	U	0.85	0.53	1
10590	Methoxychlor	72-43-5	6.9	U	6.9	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-584-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473692
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 07:52 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58400 SDG#: PH193-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Mirex	2385-85-5	1.8	U	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1
	Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	27	J	34	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.2	1
13099	PCB-1242	53469-21-9	18	U	18	4.2	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	110		18	4.5	1
13099	PCB-1260	11096-82-5	18	U	18	4.0	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	3.1	J	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	30		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	48		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	21		5.2	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	25		10	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
	The reverse surrogate, capric acid, is present at <1%.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	16,600		41.9	7.55	1
06944	Antimony	7440-36-0	4.19	U	4.19	0.775	1
06935	Arsenic	7440-38-2	7.07		4.19	0.733	1
06946	Barium	7440-39-3	97.4		1.05	0.0346	1
06947	Beryllium	7440-41-7	0.638	J	1.05	0.0702	1
07914	Boron	7440-42-8	5.41	J	10.5	0.880	1
06949	Cadmium	7440-43-9	1.26		1.05	0.0796	1
01650	Calcium	7440-70-2	7,920		20.9	3.50	1
06951	Chromium	7440-47-3	25.4		3.14	0.168	1
06952	Cobalt	7440-48-4	6.32		1.05	0.104	1
06953	Copper	7440-50-8	37.5		2.09	0.304	1
01654	Iron	7439-89-6	22,900		41.9	3.79	1
06955	Lead	7439-92-1	17.2		3.14	0.524	1
01656	Lithium	7439-93-2	28.6		4.2	0.36	1
01657	Magnesium	7439-95-4	5,050		10.5	1.75	1
06958	Manganese	7439-96-5	323		1.05	0.0869	1
06960	Molybdenum	7439-98-7	0.348	J	2.09	0.178	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-584-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473692
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 07:52 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58400 SDG#: PH193-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
06961	Nickel	7440-02-0	17.4		2.09	0.136	1
10145	Phosphorus	7723-14-0	483		10.5	3.03	1
01662	Potassium	7440-09-7	3,650		105	8.73	1
01667	Sodium	7440-23-5	101	J	105	17.5	1
06969	Tin	7440-31-5	2.63	J	10.5	0.230	1
06970	Titanium	7440-32-6	1,030		1.05	0.178	1
06971	Vanadium	7440-62-2	37.1		1.05	0.136	1
06972	Zinc	7440-66-6	148		4.19	0.209	1
10146	Zirconium	7440-67-7	3.63	J	5.24	0.880	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.239	J	0.419	0.105	2
06142	Silver	7440-22-4	3.33		0.209	0.0272	2
06144	Strontium	7440-24-6	42.4		0.419	0.0712	2
06145	Thallium	7440-28-0	0.309		0.209	0.0314	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.121		0.0164	0.0098	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.02		0.0100	0.0100	1
	The pH was measured in water at 22.8 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.5		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-584-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473692
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 07:52 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58400 SDG#: PH193-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.02	U	1.02	0.106	1
11031	12378-PeCDD	40321-76-4	4.35	J	5.08	0.142	1
11031	123478-HxCDD	39227-28-6	7.75	B	5.08	0.0804	1
11031	123678-HxCDD	57653-85-7	40.2		5.08	0.0869	1
11031	123789-HxCDD	19408-74-3	17.5		5.08	0.0791	1
11031	1234678-HpCDD	35822-46-9	936	B	5.08	0.232	1
11031	OCDD	3268-87-9	8,880	EB	10.2	0.150	1
11650	2378-TCDF-Conf	51207-31-9	1.64	C	1.02	0.152	1
11031	12378-PeCDF	57117-41-6	4.19	JB	5.08	0.0694	1
11031	23478-PeCDF	57117-31-4	1.79	JB	5.08	0.0647	1
11031	123478-HxCDF	70648-26-9	4.34	J	5.08	0.105	1
11031	123678-HxCDF	57117-44-9	5.11	B	5.08	0.102	1
11031	123789-HxCDF	72918-21-9	1.62	JB	5.08	0.118	1
11031	234678-HxCDF	60851-34-5	7.64	B	5.08	0.0965	1
11031	1234678-HpCDF	67562-39-4	114	B	5.08	0.0616	1
11031	1234789-HpCDF	55673-89-7	19.3	B	5.08	0.0839	1
11031	OCDF	39001-02-0	289	B	10.2	0.0512	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	27.0				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDF-Conf	73	24 - 169
13C12-2378-TCDD	83	25 - 164
13C12-12378-PeCDD	94	25 - 181
13C12-123478-HxCDD	89	32 - 141
13C12-123678-HxCDD	88	28 - 130
13C12-123789-HxCDD	91	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	97	17 - 157
13C12-12378-PeCDF	103	24 - 185
13C12-23478-PeCDF	103	21 - 178
13C12-123478-HxCDF	84	26 - 152
13C12-123678-HxCDF	88	26 - 123
13C12-234678-HxCDF	87	28 - 136
13C12-123789-HxCDF	85	29 - 147
13C12-1234678-HpCDF	96	28 - 143
13C12-1234789-HpCDF	81	26 - 138
13C12-OCDF	80	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-584-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473692
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 07:52 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58400 SDG#: PH193-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-584-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473692
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 07:52 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58400 SDG#: PH193-05

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14143SLD026	05/28/2014 11:41	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14143SLD026	05/25/2014 18:15	Nicholas W Shroyer	1
13031	25a Formaldehyde by EPA 8315A	SW-846 8315A	1	141470006A	05/28/2014 20:18	Jessica L Miller	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141430013A	05/28/2014 21:28	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440034A	05/28/2014 04:09	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440034A	05/27/2014 06:30	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141430013A	05/24/2014 04:15	Olivia Arosemena	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	141470006A	05/27/2014 15:30	Wanda F Oswald	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440032A	05/28/2014 20:10	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440033A	05/30/2014 06:05	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440033A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440032A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14149004	06/03/2014 14:02	Joseph D Anderson	1
11650	Dioxins/Furans in Solids-Conf	EPA 1613B October 1994	1	14149004	06/04/2014 05:46	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14149004	05/29/2014 12:00	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-584-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473692
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 07:52 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58400 SDG#: PH193-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06958	Manganese	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1
06971	Vanadium	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1
06972	Zinc	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141470637003	05/30/2014 13:42	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141470637003B	05/28/2014 21:16	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637003A	05/28/2014 21:16	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637003A	05/28/2014 21:16	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637003A	05/28/2014 21:16	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638001	06/04/2014 19:54	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637003	05/28/2014 08:00	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638001	06/01/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14142039402A	05/22/2014 21:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401A	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-584-SA5D-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473693
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 08:10 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58440 SDG#: PH193-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.70	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.70	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.70	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.70	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.70	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1	U	1	0.2	22.89
Aldehydes & Ketones	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
13031	Formaldehyde	50-00-0	2,100	U	2,100	1,300	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.86	U	0.86	0.18	1
10590	Alpha BHC	319-84-6	0.86	U	0.86	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.86	U	0.86	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.1	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.34	1
10590	p,p-DDE	72-55-9	1.8	U	1.8	0.34	1
10590	p,p-DDT	50-29-3	1.8	U	1.8	0.36	1
10590	Delta BHC	319-86-8	0.86	U	0.86	0.47	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.34	1
10590	Endosulfan I	959-98-8	0.86	U	0.86	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.34	1
10590	Endrin	72-20-8	1.8	U	1.8	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.34	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-584-SA5D-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473693
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 08:10 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58440 SDG#: PH193-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.62	1
10590	Heptachlor	76-44-8	0.86	U	0.86	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.86	U	0.86	0.18	1
10590	Methoxychlor	72-43-5	6.9	U	6.9	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	15	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.2	1
13099	PCB-1242	53469-21-9	18	U	18	4.2	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.0	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C21-C30)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
	The reverse surrogate, capric acid, is present at <1%.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,400		42.1	7.60	1
06944	Antimony	7440-36-0	4.21	U	4.21	0.780	1
06935	Arsenic	7440-38-2	9.61		4.21	0.738	1
06946	Barium	7440-39-3	82.1		1.05	0.0348	1
06947	Beryllium	7440-41-7	0.449	J	1.05	0.0706	1
07914	Boron	7440-42-8	3.20	J	10.5	0.885	1
06949	Cadmium	7440-43-9	0.490	J	1.05	0.0801	1
01650	Calcium	7440-70-2	3,010		21.1	3.52	1
06951	Chromium	7440-47-3	22.6		3.16	0.169	1
06952	Cobalt	7440-48-4	5.93		1.05	0.104	1
06953	Copper	7440-50-8	11.3		2.11	0.306	1
01654	Iron	7439-89-6	21,700		42.1	3.81	1
06955	Lead	7439-92-1	2.56	J	3.16	0.527	1
01656	Lithium	7439-93-2	29.9		4.2	0.36	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-584-SA5D-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473693
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 08:10 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58440 SDG#: PH193-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01657	Magnesium	7439-95-4	4,440		10.5	1.76	1
06958	Manganese	7439-96-5	456		1.05	0.0875	1
06960	Molybdenum	7439-98-7	2.11	U	2.11	0.179	1
06961	Nickel	7440-02-0	15.6		2.11	0.137	1
10145	Phosphorus	7723-14-0	390		10.5	3.05	1
01662	Potassium	7440-09-7	2,240		105	8.79	1
01667	Sodium	7440-23-5	145		105	17.6	1
06969	Tin	7440-31-5	2.44	J	10.5	0.232	1
06970	Titanium	7440-32-6	1,140		1.05	0.179	1
06971	Vanadium	7440-62-2	33.3		1.05	0.137	1
06972	Zinc	7440-66-6	51.0		4.21	0.211	1
10146	Zirconium	7440-67-7	5.17	J	5.27	0.885	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.165	J	0.421	0.105	2
06142	Silver	7440-22-4	0.211	U	0.211	0.0274	2
06144	Strontium	7440-24-6	22.9		0.421	0.0717	2
06145	Thallium	7440-28-0	0.293		0.211	0.0316	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0165	U	0.0165	0.0099	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.91		0.0100	0.0100	1
	The pH was measured in water at 22.5 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	5.1		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-584-SA5D-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473693
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 08:10 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58440 SDG#: PH193-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.04	U	1.04	0.0701	1
11031	12378-PeCDD	40321-76-4	0.0676	JQ	5.19	0.0402	1
11031	123478-HxCDD	39227-28-6	0.0551	JBQ	5.19	0.0294	1
11031	123678-HxCDD	57653-85-7	0.126	JQ	5.19	0.0311	1
11031	123789-HxCDD	19408-74-3	0.0748	JQ	5.19	0.0302	1
11031	1234678-HpCDD	35822-46-9	0.912	JBQ	5.19	0.0343	1
11031	OCDD	3268-87-9	7.55	JB	10.4	0.0291	1
11031	2378-TCDF	51207-31-9	1.04	U	1.04	0.0624	1
11031	12378-PeCDF	57117-41-6	0.0726	JBQ	5.19	0.0247	1
11031	23478-PeCDF	57117-31-4	0.0643	JBQ	5.19	0.0245	1
11031	123478-HxCDF	70648-26-9	0.0490	JQ	5.19	0.0277	1
11031	123678-HxCDF	57117-44-9	0.0578	JBQ	5.19	0.0242	1
11031	123789-HxCDF	72918-21-9	0.0572	JB	5.19	0.0313	1
11031	234678-HxCDF	60851-34-5	0.0479	JB	5.19	0.0255	1
11031	1234678-HpCDF	67562-39-4	0.136	JBQ	5.19	0.0155	1
11031	1234789-HpCDF	55673-89-7	0.0753	JBQ	5.19	0.0281	1
11031	OCDF	39001-02-0	0.543	JB	10.4	0.0434	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0129				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	77	25 - 164
13C12-12378-PeCDD	92	25 - 181
13C12-123478-HxCDD	86	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	83	17 - 157
13C12-2378-TCDF	79	24 - 169
13C12-12378-PeCDF	101	24 - 185
13C12-23478-PeCDF	93	21 - 178
13C12-123478-HxCDF	73	26 - 152
13C12-123678-HxCDF	84	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	75	29 - 147
13C12-1234678-HpCDF	104	28 - 143
13C12-1234789-HpCDF	65	26 - 138
13C12-OCDF	55	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-584-SA5D-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473693
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 08:10 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58440 SDG#: PH193-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-584-SA5D-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473693
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 08:10 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58440 SDG#: PH193-06

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14143SLD026	05/28/2014 08:30	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14143SLD026	05/25/2014 18:15	Nicholas W Shroyer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147B16A	05/29/2014 08:31	Marie D Beamenderfer	22.89
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414234587	05/22/2014 19:03	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414234587	05/22/2014 19:04	Lisa J Cooke	n.a.
13031	25a Formaldehyde by EPA 8315A	SW-846 8315A	1	141470006A	05/28/2014 20:26	Jessica L Miller	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141430013A	05/28/2014 21:42	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440034A	05/28/2014 04:27	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440034A	05/27/2014 06:30	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141430013A	05/24/2014 04:15	Olivia Arosemena	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	141470006A	05/27/2014 15:30	Wanda F Oswald	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440032A	05/28/2014 03:39	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440033A	05/30/2014 01:48	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440033A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440032A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14149004	06/03/2014 14:59	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14149004	05/29/2014 12:00	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-584-SA5D-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473693
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 08:10 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58440 SDG#: PH193-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01656	Lithium	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1
06971	Vanadium	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1
06972	Zinc	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141470637003	05/30/2014 13:46	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141470637003B	05/28/2014 21:18	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637003A	05/28/2014 21:18	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637003A	05/28/2014 21:18	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637003A	05/28/2014 21:18	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638001	06/04/2014 19:56	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637003	05/28/2014 08:00	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638001	06/01/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14142039402A	05/22/2014 21:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401A	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-586-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473694
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 10:25 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58600 SDG#: PH193-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.0	J	1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	1.2	J	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	12	J	19	6.3	1
12969	Fluoranthene	206-44-0	1.2	J	1.7	0.70	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	0.72	J	1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.3	J	1.7	0.70	1
12969	Naphthalene	91-20-3	0.77	J	1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.0	J	1.7	0.70	1
12969	Pyrene	129-00-0	0.89	J	1.7	0.70	1
Aldehydes & Ketones	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
13031	Formaldehyde	50-00-0	21,000	U	21,000	13,000	1
	Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.85	U	0.85	0.17	1
10590	Alpha BHC	319-84-6	0.85	U	0.85	0.17	1
10590	Beta BHC	319-85-7	2.0	U	2.0	0.99	1
10590	Gamma BHC - Lindane	58-89-9	0.85	U	0.85	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.1	1
10590	p,p-DDD	72-54-8	1.7	U	1.7	0.34	1
10590	p,p-DDE	72-55-9	1.7	U	1.7	0.34	1
10590	p,p-DDT	50-29-3	1.7	U	1.7	0.36	1
10590	Delta BHC	319-86-8	0.85	U	0.85	0.46	1
10590	Dieldrin	60-57-1	1.7	U	1.7	0.34	1
10590	Endosulfan I	959-98-8	0.85	U	0.85	0.23	1
10590	Endosulfan II	33213-65-9	1.7	U	1.7	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.34	1
10590	Endrin	72-20-8	1.7	U	1.7	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.7	U	1.7	0.34	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.62	1
10590	Heptachlor	76-44-8	0.85	U	0.85	0.17	1
10590	Heptachlor Epoxide	1024-57-3	0.85	U	0.85	0.17	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-586-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473694
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 10:25 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58600 SDG#: PH193-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Methoxychlor	72-43-5	6.9	U	6.9	1.7	1
10590	Mirex	2385-85-5	1.7	U	1.7	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.4	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.2	1
13099	PCB-1242	53469-21-9	17	U	17	4.2	1
13099	PCB-1248	12672-29-6	17	U	17	3.4	1
13099	PCB-1254	11097-69-1	17	U	17	4.5	1
13099	PCB-1260	11096-82-5	17	U	17	4.0	1
13099	PCB-1262	37324-23-5	17	U	17	3.4	1
13099	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	11		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	22		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	21,200		41.4	7.46	1
06944	Antimony	7440-36-0	4.14	U	4.14	0.766	1
06935	Arsenic	7440-38-2	9.90		4.14	0.724	1
06946	Barium	7440-39-3	124		1.03	0.0341	1
06947	Beryllium	7440-41-7	0.909	J	1.03	0.0693	1
07914	Boron	7440-42-8	4.32	J	10.3	0.869	1
06949	Cadmium	7440-43-9	0.701	J	1.03	0.0786	1
01650	Calcium	7440-70-2	3,220		20.7	3.46	1
06951	Chromium	7440-47-3	30.1		3.10	0.166	1
06952	Cobalt	7440-48-4	9.40		1.03	0.102	1
06953	Copper	7440-50-8	18.6		2.07	0.300	1
01654	Iron	7439-89-6	33,100		82.8	7.49	2
06955	Lead	7439-92-1	9.26		3.10	0.517	1
01656	Lithium	7439-93-2	30.5		4.1	0.35	1
01657	Magnesium	7439-95-4	5,690		10.3	1.73	1
06958	Manganese	7439-96-5	407		1.03	0.0859	1
06960	Molybdenum	7439-98-7	0.800	J	2.07	0.176	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-586-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473694
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 10:25 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58600 SDG#: PH193-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
06961	Nickel	7440-02-0	21.6		2.07	0.134	1
10145	Phosphorus	7723-14-0	576		10.3	2.99	1
01662	Potassium	7440-09-7	4,530		103	8.63	1
01667	Sodium	7440-23-5	111		103	17.3	1
06969	Tin	7440-31-5	2.65	J	10.3	0.228	1
06970	Titanium	7440-32-6	1,220		1.03	0.176	1
06971	Vanadium	7440-62-2	50.0		1.03	0.134	1
06972	Zinc	7440-66-6	81.3		4.14	0.207	1
10146	Zirconium	7440-67-7	6.83		5.17	0.869	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.243	J	0.414	0.103	2
06142	Silver	7440-22-4	0.207	U	0.207	0.0269	2
06144	Strontium	7440-24-6	27.6		0.414	0.0704	2
06145	Thallium	7440-28-0	0.374		0.207	0.0310	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0173	U	0.0173	0.0104	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.17		0.0100	0.0100	1
	The pH was measured in water at 22.4 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.3		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-586-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473694
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 10:25 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58600 SDG#: PH193-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0430 JB	1.01	0.0136	1
11031	12378-PeCDD	40321-76-4	0.314 J	5.05	0.0181	1
11031	123478-HxCDD	39227-28-6	0.0749 JB	5.05	0.0158	1
11031	123678-HxCDD	57653-85-7	1.15 J	5.05	0.0159	1
11031	123789-HxCDD	19408-74-3	1.52 J	5.05	0.0156	1
11031	1234678-HpCDD	35822-46-9	2.59 JB	5.05	0.0150	1
11031	OCDD	3268-87-9	39.2 B	10.1	0.0148	1
11031	2378-TCDF	51207-31-9	0.0941 J	1.01	0.0147	1
11031	12378-PeCDF	57117-41-6	0.531 JB	5.05	0.00750	1
11031	23478-PeCDF	57117-31-4	0.180 JB	5.05	0.00758	1
11031	123478-HxCDF	70648-26-9	0.107 J	5.05	0.0170	1
11031	123678-HxCDF	57117-44-9	0.175 JB	5.05	0.0141	1
11031	123789-HxCDF	72918-21-9	1.88 JB	5.05	0.0176	1
11031	234678-HxCDF	60851-34-5	0.0953 JB	5.05	0.0140	1
11031	1234678-HpCDF	67562-39-4	0.439 JB	5.05	0.00525	1
11031	1234789-HpCDF	55673-89-7	0.0828 JB	5.05	0.0103	1
11031	OCDF	39001-02-0	1.34 JB	10.1	0.00971	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.981			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	59	25 - 164
13C12-12378-PeCDD	68	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	73	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	72	23 - 140
13C12-OCDD	65	17 - 157
13C12-2378-TCDF	56	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	65	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	71	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	65	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	53	26 - 138
13C12-OCDF	45	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-586-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473694
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 10:25 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58600 SDG#: PH193-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-586-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473694
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 10:25 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58600 SDG#: PH193-07

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14143SLD026	05/28/2014 09:02	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14143SLD026	05/25/2014 18:15	Nicholas W Shroyer	1
13031	25a Formaldehyde by EPA 8315A	SW-846 8315A	1	141470006A	05/28/2014 20:43	Jessica L Miller	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141430013A	05/28/2014 21:56	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440034A	05/28/2014 04:46	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440034A	05/27/2014 06:30	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141430013A	05/24/2014 04:15	Olivia Arosemena	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	141470006A	05/27/2014 15:30	Wanda F Oswald	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440032A	05/28/2014 18:01	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440033A	05/30/2014 02:09	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440033A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440032A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14149004	06/04/2014 17:54	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14149004	05/29/2014 12:00	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141470637003	05/30/2014 13:50	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141470637003	05/30/2014 13:50	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141470637003	05/30/2014 13:50	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141470637003	05/30/2014 13:50	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141470637003	05/30/2014 13:50	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141470637003	05/30/2014 13:50	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141470637003	05/30/2014 13:50	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141470637003	05/30/2014 13:50	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141470637003	05/30/2014 13:50	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141470637003	05/30/2014 13:50	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141470637003	05/30/2014 13:50	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141470637003	05/30/2014 22:37	John W Yanzuk II	2
06955	Lead	SW-846 6010C	1	141470637003	05/30/2014 13:50	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141470637003	05/30/2014 13:50	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141470637003	05/30/2014 13:50	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141470637003	05/30/2014 13:50	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141470637003	05/30/2014 13:50	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-586-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473694
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 10:25 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58600 SDG#: PH193-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06961	Nickel	SW-846 6010C	1	141470637003	05/30/2014 13:50	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141470637003	05/30/2014 13:50	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141470637003	05/30/2014 13:50	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141470637003	05/30/2014 13:50	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141470637003	05/30/2014 13:50	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141470637003	05/30/2014 13:50	Eric L Eby	1
06971	Vanadium	SW-846 6010C	1	141470637003	05/30/2014 13:50	Eric L Eby	1
06972	Zinc	SW-846 6010C	1	141470637003	05/30/2014 13:50	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141470637003	05/30/2014 13:50	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141470637003B	05/28/2014 21:20	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637003A	05/28/2014 21:20	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637003A	05/28/2014 21:20	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637003A	05/28/2014 21:20	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638001	06/04/2014 19:58	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637003	05/28/2014 08:00	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638001	06/01/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14142039402A	05/22/2014 21:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401A	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-586-SA5D-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473695
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 10:32 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58620 SDG#: PH193-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.70	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.70	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.70	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.70	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.70	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2	24.65
Aldehydes & Ketones	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
13031	Formaldehyde	50-00-0	2,100	U	2,100	1,300	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.86	U	0.86	0.18	1
10590	Alpha BHC	319-84-6	0.86	U	0.86	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	0.99	1
10590	Gamma BHC - Lindane	58-89-9	0.86	U	0.86	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.1	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.34	1
10590	p,p-DDE	72-55-9	1.8	U	1.8	0.34	1
10590	p,p-DDT	50-29-3	1.8	U	1.8	0.36	1
10590	Delta BHC	319-86-8	0.86	U	0.86	0.46	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.34	1
10590	Endosulfan I	959-98-8	0.86	U	0.86	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.34	1
10590	Endrin	72-20-8	1.8	U	1.8	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.34	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-586-SA5D-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473695
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 10:32 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58620 SDG#: PH193-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.62	1
10590	Heptachlor	76-44-8	0.86	U	0.86	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.86	U	0.86	0.18	1
10590	Methoxychlor	72-43-5	6.9	U	6.9	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.2	1
13099	PCB-1242	53469-21-9	18	U	18	4.2	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	18	U	18	4.5	1
13099	PCB-1260	11096-82-5	18	U	18	4.0	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C21-C30)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
	The reverse surrogate, capric acid, is present at <1%.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,300		40.0	7.21	1
06944	Antimony	7440-36-0	4.00	U	4.00	0.740	1
06935	Arsenic	7440-38-2	5.75		4.00	0.700	1
06946	Barium	7440-39-3	84.5		1.00	0.0330	1
06947	Beryllium	7440-41-7	0.313	J	1.00	0.0670	1
07914	Boron	7440-42-8	2.56	J	10.0	0.840	1
06949	Cadmium	7440-43-9	0.458	J	1.00	0.0760	1
01650	Calcium	7440-70-2	2,920		20.0	3.34	1
06951	Chromium	7440-47-3	28.0		3.00	0.160	1
06952	Cobalt	7440-48-4	6.11		1.00	0.0990	1
06953	Copper	7440-50-8	10.3		2.00	0.290	1
01654	Iron	7439-89-6	19,000		40.0	3.62	1
06955	Lead	7439-92-1	2.99	J	3.00	0.500	1
01656	Lithium	7439-93-2	23.0		4.0	0.34	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-586-SA5D-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473695
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 10:32 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58620 SDG#: PH193-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01657	Magnesium	7439-95-4	5,110		10.0	1.67	1
06958	Manganese	7439-96-5	239		1.00	0.0830	1
06960	Molybdenum	7439-98-7	0.174	J	2.00	0.170	1
06961	Nickel	7440-02-0	21.1		2.00	0.130	1
10145	Phosphorus	7723-14-0	439		10.0	2.89	1
01662	Potassium	7440-09-7	2,630		100	8.34	1
01667	Sodium	7440-23-5	101		100	16.7	1
06969	Tin	7440-31-5	2.40	J	10.0	0.220	1
06970	Titanium	7440-32-6	1,150		1.00	0.170	1
06971	Vanadium	7440-62-2	40.9		1.00	0.130	1
06972	Zinc	7440-66-6	54.2		4.00	0.200	1
10146	Zirconium	7440-67-7	4.93	J	5.00	0.840	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.400	U	0.400	0.100	2
06142	Silver	7440-22-4	0.200	U	0.200	0.0260	2
06144	Strontium	7440-24-6	19.0		0.400	0.0680	2
06145	Thallium	7440-28-0	0.268		0.200	0.0300	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0164	U	0.0164	0.0098	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.64		0.0100	0.0100	1
	The pH was measured in water at 22.7 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.8		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-586-SA5D-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473695
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 10:32 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58620 SDG#: PH193-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.00908 JBQ	1.02	0.00729	1
11031	12378-PeCDD	40321-76-4	0.0245 JQ	5.11	0.00653	1
11031	123478-HxCDD	39227-28-6	0.0289 JBQ	5.11	0.00863	1
11031	123678-HxCDD	57653-85-7	0.0356 J	5.11	0.00865	1
11031	123789-HxCDD	19408-74-3	0.0395 J	5.11	0.00889	1
11031	1234678-HpCDD	35822-46-9	0.149 JB	5.11	0.00760	1
11031	OCDD	3268-87-9	0.984 JB	10.2	0.00694	1
11031	2378-TCDF	51207-31-9	1.02 U	1.02	0.00531	1
11031	12378-PeCDF	57117-41-6	0.0427 JB	5.11	0.00319	1
11031	23478-PeCDF	57117-31-4	5.11 U	5.11	0.00338	1
11031	123478-HxCDF	70648-26-9	0.0367 JQ	5.11	0.00533	1
11031	123678-HxCDF	57117-44-9	0.0391 JBQ	5.11	0.00459	1
11031	123789-HxCDF	72918-21-9	0.0388 JBQ	5.11	0.00576	1
11031	234678-HxCDF	60851-34-5	0.0315 JB	5.11	0.00489	1
11031	1234678-HpCDF	67562-39-4	0.0609 JB	5.11	0.00241	1
11031	1234789-HpCDF	55673-89-7	0.0332 JB	5.11	0.00434	1
11031	OCDF	39001-02-0	0.174 JB	10.2	0.00610	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0147			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	65	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	84	23 - 140
13C12-OCDD	76	17 - 157
13C12-2378-TCDF	63	24 - 169
13C12-12378-PeCDF	77	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	81	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	100	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	59	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-586-SA5D-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473695
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 10:32 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58620 SDG#: PH193-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-586-SA5D-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473695
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 10:32 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58620 SDG#: PH193-08

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14143SLD026	05/28/2014 09:34	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14143SLD026	05/25/2014 18:15	Nicholas W Shroyer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147B16A	05/29/2014 09:08	Marie D Beamenderfer	24.65
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414234587	05/22/2014 19:05	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414234587	05/22/2014 19:05	Lisa J Cooke	n.a.
13031	25a Formaldehyde by EPA 8315A	SW-846 8315A	1	141470006A	05/28/2014 20:51	Jessica L Miller	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141430013A	05/28/2014 22:10	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440034A	05/28/2014 05:04	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440034A	05/27/2014 06:30	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141430013A	05/24/2014 04:15	Olivia Arosemena	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	141470006A	05/27/2014 15:30	Wanda F Oswald	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440032A	05/28/2014 04:01	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440033A	05/30/2014 02:31	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440033A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440032A	05/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14149004	06/04/2014 18:51	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14149004	05/29/2014 12:00	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-586-SA5D-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7473695
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 10:32 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58620 SDG#: PH193-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01656	Lithium	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1
06971	Vanadium	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1
06972	Zinc	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141470637003	05/30/2014 13:54	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141470637003B	05/28/2014 21:23	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637003A	05/28/2014 21:23	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637003A	05/28/2014 21:23	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637003A	05/28/2014 21:23	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638001	06/04/2014 20:00	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637003	05/28/2014 08:00	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638001	06/01/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14142039402B	05/22/2014 21:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401A	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-623-SA8-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7473696
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 13:14 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62300 SDG#: PH193-09

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.4	U	5.4	2.2	1
12952	EFH (C15-C20)	n.a.	2.8	J	5.4	2.2	1
12952	EFH (C21-C30)	n.a.	13		5.4	2.2	1
12952	EFH (C30-C40)	n.a.	20		11	4.4	1
12952	EFH (C8-C11)	n.a.	5.4	U	5.4	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.4	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
	The reverse surrogate, capric acid, is present at <1%.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	8.2		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440032A	05/28/2014 17:39	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440033A	05/30/2014 02:52	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440033A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440032A	05/27/2014 11:00	William H Saadeh	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401A	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-623-SA8-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7473697
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 13:21 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62340 SDG#: PH193-10

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2	23.76
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C21-C30)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
	The reverse surrogate, capric acid, is present at <1%.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	6.3		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147B16A	05/29/2014 09:46	Marie D Beamenderfer	23.76
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414234587	05/22/2014 19:06	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414234587	05/22/2014 19:06	Lisa J Cooke	n.a.
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440032A	05/28/2014 04:23	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440033A	05/30/2014 03:13	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440033A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440032A	05/27/2014 11:00	William H Saadeh	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401A	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-623-SA8-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7473698
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 13:41 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62390 SDG#: PH193-11

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.70	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	11	J	19	6.3	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.70	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.70	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.70	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.70	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2	23.85
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.2	1
13099	PCB-1242	53469-21-9	18	U	18	4.2	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.0	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-623-SA8-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7473698
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 13:41 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62390 SDG#: PH193-11

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,400		41.3	7.44	1
06944	Antimony	7440-36-0	4.13	U	4.13	0.764	1
06935	Arsenic	7440-38-2	8.12		4.13	0.722	1
06946	Barium	7440-39-3	68.4		1.03	0.0341	1
06947	Beryllium	7440-41-7	0.598	J	1.03	0.0691	1
07914	Boron	7440-42-8	4.68	J	10.3	0.867	1
06949	Cadmium	7440-43-9	0.463	J	1.03	0.0784	1
01650	Calcium	7440-70-2	8,130		20.6	3.45	1
06951	Chromium	7440-47-3	16.1		3.10	0.165	1
06952	Cobalt	7440-48-4	5.63		1.03	0.102	1
06953	Copper	7440-50-8	8.83		2.06	0.299	1
01654	Iron	7439-89-6	21,600		41.3	3.74	1
06955	Lead	7439-92-1	4.67		3.10	0.516	1
01656	Lithium	7439-93-2	22.4		4.1	0.35	1
01657	Magnesium	7439-95-4	4,170		10.3	1.72	1
06958	Manganese	7439-96-5	298		1.03	0.0857	1
06960	Molybdenum	7439-98-7	0.453	J	2.06	0.175	1
06961	Nickel	7440-02-0	9.20		2.06	0.134	1
10145	Phosphorus	7723-14-0	252		10.3	2.98	1
01662	Potassium	7440-09-7	2,820		103	8.61	1
01667	Sodium	7440-23-5	80.4	J	103	17.2	1
06969	Tin	7440-31-5	2.82	J	10.3	0.227	1
06970	Titanium	7440-32-6	756		1.03	0.175	1
06971	Vanadium	7440-62-2	32.5		1.03	0.134	1
06972	Zinc	7440-66-6	53.1		4.13	0.206	1
10146	Zirconium	7440-67-7	3.26	J	5.16	0.867	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.413	U	0.413	0.103	2
06142	Silver	7440-22-4	0.206	U	0.206	0.0268	2
06144	Strontium	7440-24-6	26.8		0.413	0.0702	2
06145	Thallium	7440-28-0	0.289		0.206	0.0310	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0164	U	0.0164	0.0098	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-623-SA8-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7473698
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 13:41 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62390 SDG#: PH193-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 22.3 C.	n.a.	8.09	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	5.0	0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14143SLD026	05/28/2014 10:06	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14143SLD026	05/25/2014 18:15	Nicholas W Shroyer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147B16A	05/29/2014 10:24	Marie D Beamenderfer	23.85
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414234587	05/22/2014 19:07	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414234587	05/22/2014 19:07	Lisa J Cooke	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440034A	05/28/2014 05:22	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440034A	05/27/2014 06:30	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440032A	05/28/2014 04:44	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440033A	05/30/2014 03:35	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440033A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440032A	05/27/2014 11:00	William H Saadeh	1
01643	Aluminum	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-623-SA8-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7473698
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 13:41 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62390 SDG#: PH193-11

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06953	Copper	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1
06971	Vanadium	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1
06972	Zinc	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141470637003	05/30/2014 13:58	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141470637003B	05/28/2014 21:25	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637003A	05/28/2014 21:25	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637003A	05/28/2014 21:25	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637003A	05/28/2014 21:25	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638001	06/04/2014 20:02	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637003	05/28/2014 08:00	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638001	06/01/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14142039402B	05/22/2014 21:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401A	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-623-SA8-SB-14.0-15.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7473699
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 13:56 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62314 SDG#: PH193-12

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.71	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.71	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.71	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.71	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.71	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.71	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.4	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.4	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.71	1
12969	Diethylphthalate	84-66-2	19	U	19	6.4	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.4	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.4	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.71	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.71	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.71	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.71	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.71	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.71	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.71	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.4	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.71	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.71	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	25.15
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	10	1
13099	Aroclor 5442	12642-23-8	35	U	35	10	1
13099	Aroclor 5460	11126-42-4	35	U	35	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-623-SA8-SB-14.0-15.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7473699
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 13:56 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62314 SDG#: PH193-12

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	17,200		42.6	7.67	1
06944	Antimony	7440-36-0	4.26	U	4.26	0.787	1
06935	Arsenic	7440-38-2	6.59		4.26	0.745	1
06946	Barium	7440-39-3	89.8		1.06	0.0351	1
06947	Beryllium	7440-41-7	0.616	J	1.06	0.0713	1
07914	Boron	7440-42-8	5.90	J	10.6	0.894	1
06949	Cadmium	7440-43-9	0.487	J	1.06	0.0809	1
01650	Calcium	7440-70-2	6,050		21.3	3.55	1
06951	Chromium	7440-47-3	19.3		3.19	0.170	1
06952	Cobalt	7440-48-4	6.49		1.06	0.105	1
06953	Copper	7440-50-8	9.58		2.13	0.309	1
01654	Iron	7439-89-6	22,800		42.6	3.85	1
06955	Lead	7439-92-1	4.74		3.19	0.532	1
01656	Lithium	7439-93-2	22.6		4.3	0.36	1
01657	Magnesium	7439-95-4	4,880		10.6	1.78	1
06958	Manganese	7439-96-5	378		1.06	0.0883	1
06960	Molybdenum	7439-98-7	0.396	J	2.13	0.181	1
06961	Nickel	7440-02-0	10.6		2.13	0.138	1
10145	Phosphorus	7723-14-0	295		10.6	3.07	1
01662	Potassium	7440-09-7	3,280		106	8.87	1
01667	Sodium	7440-23-5	252		106	17.8	1
06969	Tin	7440-31-5	2.91	J	10.6	0.234	1
06970	Titanium	7440-32-6	892		1.06	0.181	1
06971	Vanadium	7440-62-2	38.6		1.06	0.138	1
06972	Zinc	7440-66-6	54.6		4.26	0.213	1
10146	Zirconium	7440-67-7	4.11	J	5.32	0.894	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.426	U	0.426	0.106	2
06142	Silver	7440-22-4	0.0306	J	0.213	0.0277	2
06144	Strontium	7440-24-6	31.9		0.426	0.0723	2
06145	Thallium	7440-28-0	0.280		0.213	0.0319	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0169	U	0.0169	0.0101	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-623-SA8-SB-14.0-15.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7473699
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 13:56 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62314 SDG#: PH193-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 22.4 C.	n.a.	8.61	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	6.0	0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14143SLD026	05/28/2014 10:38	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14143SLD026	05/25/2014 18:15	Nicholas W Shroyer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147B16A	05/29/2014 11:02	Marie D Beamenderfer	25.15
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414234587	05/22/2014 19:08	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414234587	05/22/2014 19:08	Lisa J Cooke	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440034A	05/28/2014 05:41	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440034A	05/27/2014 06:30	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440032A	05/28/2014 05:06	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440033A	05/30/2014 03:56	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440033A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440032A	05/27/2014 11:00	William H Saadeh	1
01643	Aluminum	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-623-SA8-SB-14.0-15.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7473699
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 13:56 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62314 SDG#: PH193-12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06953	Copper	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1
06971	Vanadium	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1
06972	Zinc	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141470637003	05/30/2014 14:02	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141470637003B	05/28/2014 21:28	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637003A	05/28/2014 21:28	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637003A	05/28/2014 21:28	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637003A	05/28/2014 21:28	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638001	06/04/2014 20:04	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637003	05/28/2014 08:00	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638001	06/01/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14142039402B	05/22/2014 21:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401A	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-623-SA8-SB-19.0-20.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7473700
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 14:14 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62319 SDG#: PH193-13*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	1.7	U	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.70	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.70	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.70	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.70	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	25.25
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.4	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.2	1
13099	PCB-1242	53469-21-9	17	U	17	4.2	1
13099	PCB-1248	12672-29-6	17	U	17	3.4	1
13099	PCB-1254	11097-69-1	17	U	17	4.5	1
13099	PCB-1260	11096-82-5	17	U	17	4.0	1
13099	PCB-1262	37324-23-5	17	U	17	3.4	1
13099	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-623-SA8-SB-19.0-20.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7473700
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 14:14 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62319 SDG#: PH193-13*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C30-C40)	n.a.	10	U	10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,000		41.0	7.39	1
06944	Antimony	7440-36-0	4.10	U	4.10	0.758	1
06935	Arsenic	7440-38-2	5.81		4.10	0.717	1
06946	Barium	7440-39-3	55.5		1.02	0.0338	1
06947	Beryllium	7440-41-7	0.457	J	1.02	0.0686	1
07914	Boron	7440-42-8	5.60	J	10.2	0.861	1
06949	Cadmium	7440-43-9	0.454	J	1.02	0.0779	1
01650	Calcium	7440-70-2	2,790		20.5	3.42	1
06951	Chromium	7440-47-3	13.9		3.07	0.164	1
06952	Cobalt	7440-48-4	4.47		1.02	0.101	1
06953	Copper	7440-50-8	6.49		2.05	0.297	1
01654	Iron	7439-89-6	20,000		41.0	3.71	1
06955	Lead	7439-92-1	2.96	J	3.07	0.512	1
01656	Lithium	7439-93-2	22.5		4.1	0.35	1
01657	Magnesium	7439-95-4	4,360		10.2	1.71	1
06958	Manganese	7439-96-5	275		1.02	0.0850	1
06960	Molybdenum	7439-98-7	0.339	J	2.05	0.174	1
06961	Nickel	7440-02-0	7.06		2.05	0.133	1
10145	Phosphorus	7723-14-0	224		10.2	2.96	1
01662	Potassium	7440-09-7	3,010		102	8.54	1
01667	Sodium	7440-23-5	278		102	17.1	1
06969	Tin	7440-31-5	2.77	J	10.2	0.225	1
06970	Titanium	7440-32-6	911		1.02	0.174	1
06971	Vanadium	7440-62-2	30.6		1.02	0.133	1
06972	Zinc	7440-66-6	48.7		4.10	0.205	1
10146	Zirconium	7440-67-7	3.01	J	5.12	0.861	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.410	U	0.410	0.102	2
06142	Silver	7440-22-4	0.205	U	0.205	0.0266	2
06144	Strontium	7440-24-6	19.2		0.410	0.0697	2
06145	Thallium	7440-28-0	0.259		0.205	0.0307	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0166	U	0.0166	0.0099	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-623-SA8-SB-19.0-20.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7473700
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 14:14 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62319 SDG#: PH193-13*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 22.4 C.	n.a.	8.80	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	4.3	0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14143SLD026	05/28/2014 11:09	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14143SLD026	05/25/2014 18:15	Nicholas W Shroyer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147B16A	05/29/2014 11:39	Marie D Beamenderfer	25.25
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414234587	05/22/2014 19:01	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414234587	05/22/2014 19:01	Lisa J Cooke	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440034A	05/28/2014 05:59	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440034A	05/27/2014 06:30	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440032A	05/28/2014 05:28	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141440033A	05/30/2014 04:18	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141440033A	05/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141440032A	05/27/2014 11:00	William H Saadeh	1
01643	Aluminum	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-623-SA8-SB-19.0-20.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7473700
LL Group # 1476433
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/21/2014 14:14 by RR

Submitted: 05/22/2014 09:25
Reported: 06/06/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62319 SDG#: PH193-13*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06953	Copper	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1
06971	Vanadium	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1
06972	Zinc	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141470637003	05/30/2014 14:06	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141470637003B	05/28/2014 21:30	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637003A	05/28/2014 21:30	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637003A	05/28/2014 21:30	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637003A	05/28/2014 21:30	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638001	06/04/2014 20:06	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637003	05/28/2014 08:00	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638001	06/01/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14142039402B	05/22/2014 21:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401A	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476433
Reported: 06/06/14 at 12:21 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14143SLD026	Sample number(s): 7473686-7473688,7473690-7473695,7473698-7473700									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	121*		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	98		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	106		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	111		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	92		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	109		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	84		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	98		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	87		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	105		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	111		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	95		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	102		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	93		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	90		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	113		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	109		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	95		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	98		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	96		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	102		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	99		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	104		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	108		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	104		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	96		80-119		
Batch number: 14147B16A	Sample number(s): 7473691,7473693,7473695,7473697-7473700									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	88		67-120		
Batch number: 14149A94A	Sample number(s): 7473685									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	96	95	80-133	1	30
Batch number: 141470006A	Sample number(s): 7473686-7473688,7473690-7473695									
Formaldehyde	2,000 U		2,000.	1,200	ug/kg	101		68-122		
Batch number: 141430013A	Sample number(s): 7473686-7473688,7473690-7473695									
Aldrin	0.83	U	0.83	0.17	ug/kg	62		60-118		
Alpha BHC	0.83	U	0.83	0.17	ug/kg	72		55-135		
Beta BHC	1.9	U	1.9	0.96	ug/kg	81		67-129		
Gamma BHC - Lindane	0.83	U	0.83	0.17	ug/kg	78		56-138		
Chlordane	17	U	17.	4.0	ug/kg					

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476433
Reported: 06/06/14 at 12:21 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
p,p-DDD	1.7	U	1.7	0.33	ug/kg	103		69-141		
p,p-DDE	1.7	U	1.7	0.33	ug/kg	98		69-130		
p,p-DDT	1.7	U	1.7	0.35	ug/kg	107		64-139		
Delta BHC	0.83	U	0.83	0.45	ug/kg	88		59-137		
Dieldrin	1.7	U	1.7	0.33	ug/kg	90		68-134		
Endosulfan I	0.83	U	0.83	0.22	ug/kg	82		56-128		
Endosulfan II	1.7	U	1.7	0.33	ug/kg	97		68-128		
Endosulfan Sulfate	1.7	U	1.7	0.33	ug/kg	103		71-132		
Endrin	1.7	U	1.7	0.33	ug/kg	88		70-132		
Endrin Aldehyde	1.7	U	1.7	0.33	ug/kg	85		61-125		
Endrin Ketone	1.8	U	1.8	0.60	ug/kg	98		69-126		
Heptachlor	0.83	U	0.83	0.17	ug/kg	73		57-130		
Heptachlor Epoxide	0.83	U	0.83	0.17	ug/kg	90		69-125		
Methoxychlor	6.7	U	6.7	1.7	ug/kg	112		67-136		
Mirex	1.7	U	1.7	0.35	ug/kg					
Toxaphene	33	U	33.	14	ug/kg					
Batch number: 141440034A	Sample number(s): 7473686-7473688,7473690-7473695,7473698-7473700									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	91	92	36-106	1	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	100		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	107		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141440032A	Sample number(s): 7473686-7473688,7473690-7473700									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	92		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	95		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	95		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	84		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	77		60-115		
Batch number: 141440033A	Sample number(s): 7473686-7473688,7473690-7473700									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	101		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	104		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	104		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	91		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	77		60-115		
Batch number: 141470637003	Sample number(s): 7473686-7473695,7473698-7473700									
Aluminum	40.0	U	40.0	7.21	mg/kg	114		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	107		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	104		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	105		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	104		80-120		
Boron	1.59	J	10.0	0.840	mg/kg	104		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	105		80-120		
Calcium	27.9		20.0	3.34	mg/kg	114		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	106		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	107		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476433
Reported: 06/06/14 at 12:21 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Copper	2.00	U	2.00	0.290	mg/kg	108		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	110		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	105		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	106		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	106		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	107		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	105		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	109		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	106		80-120		
Potassium	100 U		100.	8.34	mg/kg	108		80-120		
Sodium	100 U		100.	16.7	mg/kg	107		80-120		
Tin	1.57	J	10.0	0.220	mg/kg	103		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	107		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	109		80-120		
Zinc	4.00	U	4.00	0.200	mg/kg	104		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	105		80-120		
Batch number: 141470637003A	Sample number(s): 7473686-7473695,7473698-7473700									
Silver	0.200	U	0.200	0.0260	mg/kg	105		80-120		
Strontium	0.125	J	0.400	0.0680	mg/kg	111		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	112		80-120		
Batch number: 141470637003B	Sample number(s): 7473686-7473695,7473698-7473700									
Selenium	0.400	U	0.400	0.100	mg/kg	110		80-120		
Batch number: 141480638001	Sample number(s): 7473686-7473695,7473698-7473700									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	86		85-120		
Batch number: 14142039402A	Sample number(s): 7473686,7473689-7473694									
15a pH by 9045D						100		95-105		
Batch number: 14142039402B	Sample number(s): 7473695,7473698-7473700									
15a pH by 9045D						100		95-105		
Batch number: 14148162401A	Sample number(s): 7473686-7473700									
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14149004	Sample number(s): 7473686-7473688,7473690-7473695									
2378-TCDD	0.0770	J	1.00	0.0464	ng/kg	97		67-158		
12378-PeCDD	5.00	U	5.00	0.0245	ng/kg	100		70-142		
123478-HxCDD	0.0301	J	5.00	0.0178	ng/kg	97		70-164		
123678-HxCDD	5.00	U	5.00	0.0185	ng/kg	97		76-134		
123789-HxCDD	5.00	U	5.00	0.0172	ng/kg	97		64-162		
1234678-HpCDD	0.138	J	5.00	0.0201	ng/kg	94		70-140		
OCDD	0.831	J	10.0	0.0191	ng/kg	92		78-144		
2378-TCDF	1.00	U	1.00	0.0394	ng/kg	107		75-158		
2378-TCDF-Conf	1.00	U	1.00	0.0322	ng/kg	107		75-158		
12378-PeCDF	0.0624	J	5.00	0.0153	ng/kg	97		80-134		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476433
Reported: 06/06/14 at 12:21 PM

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
23478-PeCDF	0.0410 J	5.00	0.0156	ng/kg	97		68-160		
123478-HxCDF	5.00 U	5.00	0.0171	ng/kg	94		72-134		
123678-HxCDF	0.0424 J	5.00	0.0148	ng/kg	94		84-130		
123789-HxCDF	0.0302 J	5.00	0.0180	ng/kg	95		78-130		
234678-HxCDF	0.0252 J	5.00	0.0159	ng/kg	93		70-156		
1234678-HpCDF	0.0309 J	5.00	0.00716	ng/kg	90		82-122		
1234789-HpCDF	0.0568 J	5.00	0.0125	ng/kg	94		78-138		
OCDF	0.119 J	10.0	0.0371	ng/kg	92		63-170		
TEQ WHO 2005 - EDLx0.0	0.00360			ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14143SLD026	Sample number(s): 7473686-7473688,7473690-7473695,7473698-7473700 UNSPK: 7473686								
Acenaphthene	106	99	48-127	7	30				
Acenaphthylene	97	93	60-128	4	30				
Anthracene	106	96	52-126	9	30				
Benzo(a)anthracene	119	91	44-143	23	30				
Benzo(a)pyrene	100	73	49-137	25	30				
Benzo(b)fluoranthene	127	71	26-142	38*	30				
Benzo(e)pyrene	105	50*	63-111	47*	30				
Benzo(g,h,i)perylene	72	22*	33-141	63*	30				
Benzo(k)fluoranthene	106	85	49-144	19	30				
Butylbenzylphthalate	112	111	64-156	1	30				
Di-n-butylphthalate	93	91	52-147	2	30				
Chrysene	99	56	43-141	37*	30				
Dibenz(a,h)anthracene	68	62	25-145	8	30				
Diethylphthalate	100	97	66-140	2	30				
Dimethylphthalate	90	84	70-123	7	30				
Bis(2-Ethylhexyl)phthalate	50	100	48-164	29	30				
Fluoranthene	115	73	38-153	34*	30				
Fluorene	81	82	57-130	1	30				
Indeno(1,2,3-cd)pyrene	92	29	26-139	65*	30				
1-Methylnaphthalene	90	84	59-139	6	30				
2-Methylnaphthalene	96	88	46-147	8	30				
Naphthalene	94	87	52-136	8	30				
N-Nitrosodimethylamine	88	85	39-134	4	30				
Di-n-octylphthalate	136	235*	52-162	54*	30				
Phenanthrene	115	75	50-137	34*	30				
Pyrene	91	65	26-143	26	30				
Batch number: 14147B16A	Sample number(s): 7473691,7473693,7473695,7473697-7473700 UNSPK: P471505								
11a TPH by EPA 8015B GRO	76	79	69-123	1	30				
Batch number: 141470006A	Sample number(s): 7473686-7473688,7473690-7473695 UNSPK: 7473686								

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476433
Reported: 06/06/14 at 12:21 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc		DUP Conc		DUP RPD	Dup RPD Max
Formaldehyde	98	99	62-126	2	50						
Batch number: 141430013A	Sample number(s): 7473686-7473688,7473690-7473695 UNSPK: 7473686										
Aldrin	85	74	16-126	14	50						
Alpha BHC	83	72	14-140	15	50						
Beta BHC	93	86	42-133	8	50						
Gamma BHC - Lindane	88	77	30-137	13	50						
p,p-DDD	114	94	43-149	19	50						
p,p-DDE	104	63	35-152	35	50						
p,p-DDT	76	0*	12-193	54*	50						
Delta BHC	103	90	13-153	13	50						
Dieldrin	105	87	41-153	20	50						
Endosulfan I	90	78	26-146	14	50						
Endosulfan II	100	81	34-141	21	50						
Endosulfan Sulfate	98	86	10-181	13	50						
Endrin	91	82	30-152	11	50						
Endrin Aldehyde	91	73	23-138	22	50						
Endrin Ketone	87	77	30-148	13	50						
Heptachlor	86	75	16-152	13	50						
Heptachlor Epoxide	110	85	33-144	26	50						
Methoxychlor	109	95	41-161	13	50						
Batch number: 141440034A	Sample number(s): 7473686-7473688,7473690-7473695,7473698-7473700 UNSPK: 7473686										
PCB-1016	73	85	41-135	15	50						
PCB-1260	89	87	40-134	3	50						
Batch number: 141440032A	Sample number(s): 7473686-7473688,7473690-7473700 UNSPK: 7473686										
EFH (C12-C14)	101	97	49-123	4	20						
EFH (C15-C20)	140*	120	49-123	16	20						
EFH (C21-C30)	353*	130*	49-123	75*	20						
EFH (C30-C40)	484*	156*	49-123	76*	20						
EFH (C8-C11)	97	90	49-123	7	20						
Batch number: 141440033A	Sample number(s): 7473686-7473688,7473690-7473700 UNSPK: 7473686										
EFH C12-C14 w/ SiGel	81	70	49-123	14	20						
EFH C15-C20 w/ SiGel	90	75	49-123	18	20						
EFH C21-C30 w/ SiGel	196*	74	49-123	79*	20						
EFH C30-C40 w/ SiGel	216*	72	49-123	80*	20						
EFH C8-C11 w/ SiGel	67	55	49-123	18	20						
Batch number: 141470637003	Sample number(s): 7473686-7473695,7473698-7473700 UNSPK: 7473686 BKG: 7473686										
Aluminum	2775 (2)	5957 (2)	75-125	25*	20	15,400		16,400		6	20
Antimony	43*	27*	75-125	46*	20	4.00	U	4.00	U	0 (1)	20
Arsenic	117	122	75-125	2	20	5.99		7.10		17 (1)	20
Barium	108	128*	75-125	11	20	88.8		96.5		8	20
Beryllium	104	110	75-125	3	20	0.561	J	0.590	J	5 (1)	20
Boron	99	97	75-125	3	20	4.86	J	4.24	J	14 (1)	20
Cadmium	115	102	75-125	13	20	0.558	J	0.707	J	24* (1)	20
Calcium	191 (2)	284 (2)	75-125	9	20	3,040		3,210		6	20
Chromium	120	145*	75-125	9	20	22.3		22.8		2	20
Cobalt	108	106	75-125	4	20	4.88		5.67		15 (1)	20

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476433
Reported: 06/06/14 at 12:21 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Copper	120	114	75-125	5	20	15.2	16.0	5	20
Iron	3043 (2)	11499 (2)	75-125	31*	20	19,100	21,700	13	20
Lead	124	80	75-125	25*	20	11.3	11.9	5 (1)	20
Lithium	104	111	75-125	3	20	20.9	23.6	12	20
Magnesium	365 (2)	902 (2)	75-125	19	20	4,070	4,490	10	20
Manganese	280 (2)	632 (2)	75-125	39*	20	206	230	11	20
Molybdenum	102	93	75-125	11	20	0.401 J	0.361 J	10 (1)	20
Nickel	113	110	75-125	4	20	13.3	14.7	10	20
Phosphorus	158*	154*	75-125	1	20	332	387	15	20
Potassium	177*	254*	75-125	13	20	3,400	3,700	8	20
Sodium	103	104	75-125	1	20	86.3 J	96.2 J	11 (1)	20
Tin	96	87	75-125	11	20	2.13 J	2.43 J	13 (1)	20
Titanium	420 (2)	599 (2)	75-125	11	20	975	1,020	4	20
Vanadium	118	141*	75-125	10	20	35.1	37.8	7	20
Zinc	190*	82	75-125	36*	20	83.4	91.8	10	20
Zirconium	97	97	75-125	2	20	4.20 J	5.01	18 (1)	20
Batch number: 141470637003A	Sample number(s): 7473686-7473695,7473698-7473700 UNSPK: 7473686 BKG: 7473686								
Silver	103	100	75-125	5	20	0.352	0.493	33* (1)	20
Strontium	147*	195*	75-125	10	20	23.1	22.9	1	20
Thallium	114	120	75-125	2	20	0.284	0.261	8 (1)	20
Batch number: 141470637003B	Sample number(s): 7473686-7473695,7473698-7473700 UNSPK: 7473686 BKG: 7473686								
Selenium	99	96	75-125	5	20	0.173 J	0.147 J	16 (1)	20
Batch number: 141480638001	Sample number(s): 7473686-7473695,7473698-7473700 UNSPK: 7473686 BKG: 7473686								
3a Mercury 7471A	96	118	65-135	14	20	0.0559	0.0505	10 (1)	20
Batch number: 14142039402A	Sample number(s): 7473686,7473689-7473694 BKG: 7473686								
15a pH by 9045D						7.24	7.22	0	3
Batch number: 14142039402B	Sample number(s): 7473695,7473698-7473700 BKG: 7473700								
15a pH by 9045D						8.80	8.78	0	3
Batch number: 14148162401A	Sample number(s): 7473686-7473700 BKG: 7473686								
14a Moisture Content by 160.3						5.4	5.6	4	20
14a Moisture Content by 160.3						5.4	5.6	4	20
14a Moisture Content by 160.3						5.4	5.6	4	20
Batch number: 14149004	Sample number(s): 7473686-7473688,7473690-7473695 UNSPK: 7473686								
2378-TCDD	99	100	40-135	3	20				
12378-PeCDD	99	100	40-135	2	20				
123478-HxCDD	96	98	40-135	3	20				
123678-HxCDD	95	91	40-135	4	20				
123789-HxCDD	95	94	40-135	0	20				
1234678-HpCDD	129	-26*	40-135	82*	20				
OCDD	166 (2)	-605 (2)	40-135	133*	20				
2378-TCDF	98	98	40-135	1	20				
2378-TCDF-Conf	98	98	40-135	1	20				
12378-PeCDF	97	97	40-135	1	20				

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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476433
Reported: 06/06/14 at 12:21 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
23478-PeCDF	96	97	40-135	1	20				
123478-HxCDF	94	95	40-135	1	20				
123678-HxCDF	94	97	40-135	4	20				
123789-HxCDF	92	94	40-135	4	20				
234678-HxCDF	95	96	40-135	2	20				
1234678-HpCDF	98	80	40-135	16	20				
1234789-HpCDF	94	91	40-135	2	20				
OCDF	96	69	40-135	24*	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14143SLD026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7473686	99	100	82
7473687	100	104	84
7473688	95	107	84
7473690	92	92	79
7473691	92	104	79
7473692	92	95	78
7473693	97	109	85
7473694	98	101	87
7473695	98	107	87
7473698	98	110	87
7473699	97	111	88
7473700	100	111	86
Blank	104	114	93
LCS	102	114	90
MS	100	104	84
MSD	95	107	84
Limits:	59-115	61-118	70-127

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 14147B16A

	Trifluorotoluene-F
7473691	78
7473693	77
7473695	80
7473697	87
7473698	76
7473699	84
7473700	83

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476433
Reported: 06/06/14 at 12:21 PM

Surrogate Quality Control

Blank	98
LCS	101
MS	90
MSD	83
Limits:	50-142

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14149A94A

	Trifluorotoluene-F
7473685	83
Blank	82
LCS	91
LCSD	90
Limits:	63-135

Analysis Name: 20a Pesticides by EPA 8081B
Batch number: 141430013A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7473686	69	93
7473687	75	98
7473688	63	82
7473690	71	93
7473691	64	81
7473692	73	104
7473693	65	84
7473694	78	87
7473695	78	102
Blank	60	100
LCS	63	106
MS	75	98
MSD	63	82
Limits:	50-130	20-120

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141440034A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7473686	90	95
7473687	84	94
7473688	96	98
7473690	98	102
7473691	97	96
7473692	90	94
7473693	103	107
7473694	87	92
7473695	111	110
7473698	104	108
7473699	97	107
7473700	106	113
Blank	112	122*
LCS	110	120

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476433
Reported: 06/06/14 at 12:21 PM

Surrogate Quality Control

LCSD	104	116
MS	84	94
MSD	96	98
Limits:	45-120	45-120

Analysis Name: 25a Formaldehyde by EPA 8315A
Batch number: 141470006A

	Butyraldehyde
7473686	114
7473687	115
7473688	115
7473690	126
7473691	111
7473692	120
7473693	115
7473694	125
7473695	118
Blank	109
LCS	113
MS	115
MSD	115
Limits:	64-126

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141440032A

	Chlorobenzene	Orthoterphenyl
7473686	77	96
7473687	82	101
7473688	80	98
7473690	96	100
7473691	84	89
7473692	78	92
7473693	87	93
7473694	84	103
7473695	80	94
7473696	75	90
7473697	85	91
7473698	84	101
7473699	86	93
7473700	88	96
Blank	82	96
LCS	87	95
MS	82	101
MSD	80	98
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141440033A

	Chlorobenzene	Orthoterphenyl
7473686	75	85

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476433
Reported: 06/06/14 at 12:21 PM

Surrogate Quality Control

7473687	73	80
7473688	63	76
7473690	72	83
7473691	74	83
7473692	82	98
7473693	74	83
7473694	72	83
7473695	78	89
7473696	69	77
7473697	74	86
7473698	71	84
7473699	81	91
7473700	75	84
Blank	79	87
LCS	92	107
MS	73	80
MSD	63	76
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 14149004

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7473686	84	88	81	81	83	80
7473687	82	93	85	86	87	96
7473688	85	94	88	90	101	98
7473690	84	94	84	84	87	91
7473691	83	95	87	90	92	96
7473692	83	94	89	88	91	91
7473693	77	92	86	86	86	87
7473694	59	68	73	73	73	72
7473695	65	73	82	84	83	84
Blank	74	87	82	83	84	82
MS	82	93	85	86	87	96
MSD	85	94	88	90	101	98
OPR	72	79	73	73	73	67
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7473686	76	90	96	94	79	83
7473687	99	87	99	99	79	85
7473688	92	90	101	98	85	91
7473690	89	87	99	100	81	84
7473691	93	85	102	95	76	88
7473692	97		103	103	84	88
7473693	83	79	101	93	73	84
7473694	65	56	71	65	64	71
7473695	76	63	77	69	72	81
Blank	71	72	90	83	72	84
MS	99	87	99	99	79	85
MSD	92	90	101	98	85	91
OPR	56	70	82	77	64	74

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476433
Reported: 06/06/14 at 12:21 PM

Surrogate Quality Control

Limits:	17-157	24-169	24-185	21-178	26-152	26-123
	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-2378-TCDF-Conf
7473686	81	82	84	75	69	
7473687	83	86	99	82	79	
7473688	87	83	103	77	67	
7473690	83	88	94	83	80	
7473691	83	75	111	68	57	
7473692	87	85	96	81	80	73
7473693	78	75	104	65	55	
7473694	69	65	88	53	45	
7473695	76	71	100	64	59	
Blank	76	72	98	61	51	57
MS	83	86	99	82	79	87
MSD	87	83	103	77	67	90
OPR	68	61	81	50	40	70
Limits:	28-136	29-147	28-143	26-138	17-157	24-169

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SSFL Phase 3 Chain of Custody

A-13013
G-1476433
S-7473685-700

CDM Smith

DateShipped: 5/21/2014
CarrierName: FedEx
AirbillNo: 770058142099

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140521-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc. Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
TB1-052114	5/21/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																			X																For all EFH, silica gel
FDG2-SL-585-SA5D-SB-0.0-0.5M	5/21/14 09:06	SO	None	6 - SS-Sleeve	10 day	X	X					X		X	X							X			X						X							clean up required on one half
FDG2-SL-585-SA5D-SB-0.0-0.5M	5/21/14 09:06	SO	None	3 - 4 oz glass	10 day													X																				the extract. Analyze both
FDG2-SL-885-SA5D-SB-0.0-0.5	5/21/14 09:16	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X							X			X						X							extracts for EFH.
FDG2-SL-885-SA5D-SB-0.0-0.5	5/21/14 09:16	SO	None	1 - 4 oz glass	10 day													X																				
FDG2-SL-585-SA5D-SB-4.0-5.0	5/21/14 09:21	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X				X			X						X							
FDG2-SL-584-SA5D-SB-0.0-0.5	5/21/14 07:52	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X							X			X						X							
FDG2-SL-584-SA5D-SB-0.0-0.5	5/21/14 07:52	SO	None	1 - 4 oz glass	10 day													X																				
FDG2-SL-584-SA5D-SB-4.0-5.0	5/21/14 08:10	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X				X			X						X							
FDG2-SL-586-SA5D-SB-0.0-0.5	5/21/14 10:25	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X							X			X						X							
FDG2-SL-586-SA5D-SB-0.0-0.5	5/21/14 10:25	SO	None	1 - 4 oz glass	10 day													X																				
FDG2-SL-586-SA5D-SB-2.0-3.0	5/21/14 10:32	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X				X			X						X							
FDG2-SL-586-SA5D-SB-2.0-3.0	5/21/14 10:32	SO	None	2 - Encore	10 day																			X														
FDG2-SL-584-SA5D-SB-4.0-5.0	5/21/14 08:10	SO	None	2 - Encore	10 day																			X														
FDG2-SL-585-SA5D-SB-4.0-5.0	5/21/14 09:21	SO	None	2 - Encore	10 day																			X														
FDG2-SL-623-SA8-SB-4.0-5.0	5/21/14 13:21	SO	None	2 - Encore	10 day																			X														
FDG2-SL-623-SA8-SB-9.0-10.0	5/21/14 13:41	SO	None	2 - Encore	10 day																			X														
FDG2-SL-623-SA8-SB-14.0-15.0	5/21/14 13:56	SO	None	2 - Encore	10 day																			X														
FDG2-SL-623-SA8-SB-19.0-20.0	5/21/14 14:14	SO	None	2 - Encore	10 day																			X														
FDG2-SL-623-SA8-SB-0.0-0.5	5/21/14 13:14	SO	None	1 - SS-Sleeve	10 day																				X													

FINAL DATA GAP BLOCK 2

Received by: [illegible] 5/22/14 0925

SSFL Phase 3 Chain of Custody

CDM Smith

A-13013
G-1476433
S-747368S-700

DateShipped: 5/21/2014
CarrierName: FedEx
AirbillNo: 770058142099

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140521-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc. Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes

Special Instructions:

Sampler: Randall Roberson

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[signature]	05/21/2014	1600									
									[signature]	5/22/14	0925

FINAL DATA GAP BLOCK 2

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/21/2014
CarrierName: FedEx
AirbillNo: 770058142099

A-13013
G-1476433
S-747385-700

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140521-08
Cooler #: 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
FDG2-SL-623-SA8-SB-4.0-5.0	5/21/14 13:21	SO	None	1 - 16 oz glass	10 day																				X															For all EFH, silica gel clean up
FDG2-SL-623-SA8-SB-9.0-10.0	5/21/14 13:41	SO	None	2 - 16 oz glass	10 day	X	X					X			X			X							X															required on half the extract.
FDG2-SL-623-SA8-SB-14.0-15.0	5/21/14 13:56	SO	None	2 - 16 oz glass	10 day	X	X					X			X			X							X															Analyze all the extract for EFH.
FDG2-SL-623-SA8-SB-19.0-20.0	5/21/14 14:14	SO	None	2 - 16 oz glass	10 day	X	X					X			X			X							X															

Special Instructions:

Sampler: Randy Roberts

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Randy Roberts	5/21/2014	1600									
										5/22/14	0925

Final data gap block 2

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Sample Administration Receipt Documentation Log

Doc Log ID: 15293

Group Number(s): 1476433

Client: CDM Smith

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/22/2014 9:25
Number of Packages:	4	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	9
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	No		
VOA Vial Headspace ≥ 6mm:	N/A		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Joseph Gruber (5200) at 11:54 on 05/22/2014

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT131	0.9	DT	Wet	Y	Bagged	N	N
2	DT131	0.8	DT	Wet	Y	Bagged	N	N
3	DT131	1.2	DT	Wet	Y	Bagged	N	N
4	DT131	1.0	DT	Wet	Y	Bagged	N	N

Sample Date/Time Discrepancy Details

Sample ID on COC	Date/Time on Label	Comments
FDG2-SL-584SA5D-SB-4.0-5.0	5/21/2014 08:18	1 16 oz. container

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

REVISED

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 17, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/23/2014
Group Number: 1476755
SDG: PH194
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB2-052214 Water	7475236
SVL-511-SA5D-4.5-5.5 Soil	7475237
SVL-511-SA5D-4.5-5.5MS Soil	7475238
SVL-511-SA5D-4.5-5.5MSD Soil	7475239
SVL-811-SA5D-4.5-5.5 Soil	7475240

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

REVISED

Sample Description: TB2-052214 Water
SSFL Phase 3 Subarea 5D

LL Sample # WW 7475236
LL Group # 1476755
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 08:00 by VV

Submitted: 05/23/2014 09:50
Reported: 06/17/2014 16:37

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB2-- SDG#: PH194-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	5	U	5	0.5	1
10335	Benzene	71-43-2	5	U	5	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	5	U	5	0.5	1
10335	Bromoform	75-25-2	5	U	5	0.5	1
10335	Bromomethane	74-83-9	5	U	5	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	5	U	5	0.5	1
10335	Chlorobenzene	108-90-7	5	U	5	0.5	1
10335	Chloroethane	75-00-3	5	U	5	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	5	U	5	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	5	U	5	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	5	U	5	0.5	1
10335	1,2-Dibromoethane	106-93-4	5	U	5	0.5	1
10335	Dibromomethane	74-95-3	5	U	5	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	5	U	5	0.5	1
10335	1,1-Dichloroethane	75-34-3	5	U	5	0.5	1
10335	1,2-Dichloroethane	107-06-2	5	U	5	0.5	1
10335	1,1-Dichloroethene	75-35-4	5	U	5	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.5	1
10335	1,2-Dichloropropane	78-87-5	5	U	5	0.5	1
10335	1,3-Dichloropropane	142-28-9	5	U	5	0.5	1
10335	2,2-Dichloropropane	594-20-7	5	U	5	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.5	1
10335	Ethyl t-butyl ether	637-92-3	5	U	5	0.5	1
10335	Ethylbenzene	100-41-4	5	U	5	0.5	1
10335	Freon 113	76-13-1	5	U	5	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: TB2-052214 Water
SSFL Phase 3 Subarea 5D

LL Sample # WW 7475236
LL Group # 1476755
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 08:00 by VV

Submitted: 05/23/2014 09:50
Reported: 06/17/2014 16:37

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB2-- SDG#: PH194-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	5	U	5	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	5	U	5	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	5	U	5	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.5	1
10335	Tetrachloroethene	127-18-4	5	U	5	0.5	1
10335	Toluene	108-88-3	5	U	5	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	5	U	5	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	5	U	5	0.5	1
10335	Trichloroethene	79-01-6	5	U	5	0.5	1
10335	Trichlorofluoromethane	75-69-4	5	U	5	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	5	U	5	0.5	1
10335	m+p-Xylene	179601-23-1	5	U	5	0.5	1
10335	o-Xylene	95-47-6	5	U	5	0.5	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: chlorotrifluoroethene.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141471AA	05/27/2014 13:50	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141471AA	05/27/2014 13:50	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: SVL-511-SA5D-4.5-5.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7475237
LL Group # 1476755
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 08:30 by VV

Submitted: 05/23/2014 09:50
Reported: 06/17/2014 16:37

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

5115D SDG#: PH194-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	20	U	20	7	0.88
10237	Acrolein	107-02-8	100	U	100	20	0.88
10237	Acrylonitrile	107-13-1	20	U	20	4	0.88
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.88
10237	Benzene	71-43-2	5	U	5	0.5	0.88
10237	Bromobenzene	108-86-1	5	U	5	1	0.88
10237	Bromochloromethane	74-97-5	5	U	5	1	0.88
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.88
10237	Bromoform	75-25-2	5	U	5	1	0.88
10237	Bromomethane	74-83-9	5	U	5	2	0.88
10237	2-Butanone	78-93-3	10	U	10	4	0.88
10237	t-Butyl alcohol	75-65-0	50	U	50	20	0.88
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.88
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.88
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.88
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.88
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.88
10237	Chlorobenzene	108-90-7	5	U	5	1	0.88
10237	Chloroethane	75-00-3	5	U	5	2	0.88
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.88
10237	Chloroform	67-66-3	5	U	5	1	0.88
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.88
10237	Chloromethane	74-87-3	5	U	5	2	0.88
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.88
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.88
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.88
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.88
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.88
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.88
10237	Dibromomethane	74-95-3	5	U	5	1	0.88
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.88
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.88
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.88
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.88
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.88
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.88
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.88
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.88
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.88
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.88
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.88
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.88
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.88
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.88
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.88
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.88
10237	Ethylbenzene	100-41-4	5	U	5	1	0.88
10237	Freon 113	76-13-1	5	U	5	2	0.88
10237	Freon 133a	75-88-7	5	U	5	2	0.88
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.88
10237	2-Hexanone	591-78-6	10	U	10	3	0.88

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: SVL-511-SA5D-4.5-5.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7475237
LL Group # 1476755
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 08:30 by VV

Submitted: 05/23/2014 09:50
Reported: 06/17/2014 16:37

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

5115D SDG#: PH194-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.88
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.88
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.88
10237	Methyl Iodide	74-88-4	5	U	5	3	0.88
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.88
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.88
10237	Methylene Chloride	75-09-2	5	U	5	2	0.88
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.88
10237	Styrene	100-42-5	5	U	5	1	0.88
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.88
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.88
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.88
10237	Toluene	108-88-3	5	U	5	1	0.88
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.88
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.88
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.88
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.88
10237	Trichloroethene	79-01-6	5	U	5	1	0.88
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.88
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.88
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.88
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.88
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.88
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.88
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.88
10237	o-Xylene	95-47-6	5	U	5	1	0.88
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	11.6		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141491AA	05/29/2014 07:04	Stephanie A Selis	0.88
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201414334606	05/23/2014 19:52	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: SVL-511-SA5D-4.5-5.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7475237
LL Group # 1476755
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 08:30 by VV

Submitted: 05/23/2014 09:50
Reported: 06/17/2014 16:37

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

5115D SDG#: PH194-02BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201414334606	05/23/2014 19:52	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201414334606	05/23/2014 19:45	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401B	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: SVL-511-SA5D-4.5-5.5MS Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7475238
LL Group # 1476755
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 08:30 by VV

Submitted: 05/23/2014 09:50
Reported: 06/17/2014 16:37

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

5115D SDG#: PH194-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg	ug/kg	ug/kg	
10237	Acetone	67-64-1	180	21	8	0.95
10237	Acrolein	107-02-8	140	110	21	0.95
10237	Acrylonitrile	107-13-1	81	21	4	0.95
10237	t-Amyl methyl ether	994-05-8	18	5	1	0.95
10237	Benzene	71-43-2	22	5	0.5	0.95
10237	Bromobenzene	108-86-1	23	5	1	0.95
10237	Bromochloromethane	74-97-5	25	5	1	0.95
10237	Bromodichloromethane	75-27-4	21	5	1	0.95
10237	Bromoform	75-25-2	20	5	1	0.95
10237	Bromomethane	74-83-9	26	5	2	0.95
10237	2-Butanone	78-93-3	140	11	4	0.95
10237	t-Butyl alcohol	75-65-0	200	54	21	0.95
10237	n-Butylbenzene	104-51-8	25	5	1	0.95
10237	sec-Butylbenzene	135-98-8	23	5	1	0.95
10237	tert-Butylbenzene	98-06-6	23	5	1	0.95
10237	Carbon Disulfide	75-15-0	17	5	1	0.95
10237	Carbon Tetrachloride	56-23-5	23	5	1	0.95
10237	Chlorobenzene	108-90-7	22	5	1	0.95
10237	Chloroethane	75-00-3	24	5	2	0.95
10237	2-Chloroethyl Vinyl Ether	110-75-8	16	11	2	0.95
10237	Chloroform	67-66-3	24	5	1	0.95
10237	1-Chlorohexane	544-10-5	23	5	1	0.95
10237	Chloromethane	74-87-3	22	5	2	0.95
10237	2-Chlorotoluene	95-49-8	23	5	1	0.95
10237	4-Chlorotoluene	106-43-4	23	5	1	0.95
10237	Chlorotrifluoroethene	79-38-9	21	5	2	0.86
10237	1,2-Dibromo-3-chloropropane	96-12-8	17	5	2	0.95
10237	Dibromochloromethane	124-48-1	21	5	1	0.95
10237	1,2-Dibromoethane	106-93-4	20	5	1	0.95
10237	Dibromomethane	74-95-3	20	5	1	0.95
10237	1,2-Dichlorobenzene	95-50-1	24	5	1	0.95
10237	1,3-Dichlorobenzene	541-73-1	23	5	1	0.95
10237	1,4-Dichlorobenzene	106-46-7	23	5	1	0.95
10237	Dichlorodifluoromethane	75-71-8	23	5	2	0.95
10237	1,1-Dichloroethane	75-34-3	22	5	1	0.95
10237	1,2-Dichloroethane	107-06-2	23	5	1	0.95
10237	1,1-Dichloroethene	75-35-4	24	5	1	0.95
10237	cis-1,2-Dichloroethene	156-59-2	22	5	1	0.95
10237	trans-1,2-Dichloroethene	156-60-5	24	5	1	0.95
10237	1,2-Dichloropropane	78-87-5	21	5	1	0.95
10237	1,3-Dichloropropane	142-28-9	20	5	1	0.95
10237	2,2-Dichloropropane	594-20-7	20	5	1	0.95
10237	1,1-Dichloropropene	563-58-6	23	5	1	0.95
10237	cis-1,3-Dichloropropene	10061-01-5	19	5	1	0.95
10237	trans-1,3-Dichloropropene	10061-02-6	18	5	1	0.95
10237	Ethyl t-butyl ether	637-92-3	18	5	1	0.95
10237	Ethylbenzene	100-41-4	22	5	1	0.95
10237	Freon 113	76-13-1	22	5	2	0.95
10237	Freon 133a	75-88-7	23	5	2	0.86
10237	Hexachlorobutadiene	87-68-3	27	5	2	0.95
10237	2-Hexanone	591-78-6	80	11	3	0.95

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: SVL-511-SA5D-4.5-5.5MS Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7475238
LL Group # 1476755
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 08:30 by VV

Submitted: 05/23/2014 09:50
Reported: 06/17/2014 16:37

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

5115D SDG#: PH194-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg	ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	20	5	1	0.95
10237	Isopropylbenzene	98-82-8	23	5	1	0.95
10237	p-Isopropyltoluene	99-87-6	22	5	1	0.95
10237	Methyl Iodide	74-88-4	23	5	3	0.95
10237	Methyl Tertiary Butyl Ether	1634-04-4	18	5	0.5	0.95
10237	4-Methyl-2-pentanone	108-10-1	80	11	3	0.95
10237	Methylene Chloride	75-09-2	23	5	2	0.95
10237	n-Propylbenzene	103-65-1	24	5	1	0.95
10237	Styrene	100-42-5	23	5	1	0.95
10237	1,1,1,2-Tetrachloroethane	630-20-6	22	5	1	0.95
10237	1,1,2,2-Tetrachloroethane	79-34-5	19	5	1	0.95
10237	Tetrachloroethene	127-18-4	29	5	1	0.95
10237	Toluene	108-88-3	22	5	1	0.95
10237	1,2,3-Trichlorobenzene	87-61-6	22	5	1	0.95
10237	1,2,4-Trichlorobenzene	120-82-1	22	5	1	0.95
10237	1,1,1-Trichloroethane	71-55-6	21	5	1	0.95
10237	1,1,2-Trichloroethane	79-00-5	21	5	1	0.95
10237	Trichloroethene	79-01-6	23	5	1	0.95
10237	Trichlorofluoromethane	75-69-4	25	5	2	0.95
10237	1,2,3-Trichloropropane	96-18-4	20	5	1	0.95
10237	1,2,4-Trimethylbenzene	95-63-6	22	5	1	0.95
10237	1,3,5-Trimethylbenzene	108-67-8	23	5	1	0.95
10237	Vinyl Acetate	108-05-4	45	10	2	0.86
10237	Vinyl Chloride	75-01-4	24	5	1	0.95
10237	m+p-Xylene	179601-23-1	45	5	1	0.95
10237	o-Xylene	95-47-6	22	5	1	0.95
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	14a Moisture Content by 160.3	n.a.	11.6	0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141491AA	05/29/2014 07:27	Stephanie A Selis	0.95
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141491AA	05/29/2014 08:12	Stephanie A Selis	0.86
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201414334606	05/23/2014 19:52	Mitchell R Washel	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201414334606	05/23/2014 19:52	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: SVL-511-SA5D-4.5-5.5MS Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7475238
LL Group # 1476755
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 08:30 by VV

Submitted: 05/23/2014 09:50
Reported: 06/17/2014 16:37

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

5115D SDG#: PH194-02MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201414334606	05/23/2014 19:47	Mitchell R Washel	n.a.
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401B	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: SVL-511-SA5D-4.5-5.5MSD Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7475239
LL Group # 1476755
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 08:30 by VV

Submitted: 05/23/2014 09:50
Reported: 06/17/2014 16:37

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

5115D SDG#: PH194-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg	ug/kg	ug/kg	
10237	Acetone	67-64-1	190	21	7	0.94
10237	Acrolein	107-02-8	110	110	21	0.94
10237	Acrylonitrile	107-13-1	88	21	4	0.94
10237	t-Amyl methyl ether	994-05-8	18	5	1	0.94
10237	Benzene	71-43-2	20	5	0.5	0.94
10237	Bromobenzene	108-86-1	20	5	1	0.94
10237	Bromochloromethane	74-97-5	23	5	1	0.94
10237	Bromodichloromethane	75-27-4	19	5	1	0.94
10237	Bromoform	75-25-2	19	5	1	0.94
10237	Bromomethane	74-83-9	24	5	2	0.94
10237	2-Butanone	78-93-3	150	11	4	0.94
10237	t-Butyl alcohol	75-65-0	190	53	21	0.94
10237	n-Butylbenzene	104-51-8	16	5	1	0.94
10237	sec-Butylbenzene	135-98-8	19	5	1	0.94
10237	tert-Butylbenzene	98-06-6	18	5	1	0.94
10237	Carbon Disulfide	75-15-0	15	5	1	0.94
10237	Carbon Tetrachloride	56-23-5	21	5	1	0.94
10237	Chlorobenzene	108-90-7	20	5	1	0.94
10237	Chloroethane	75-00-3	23	5	2	0.94
10237	2-Chloroethyl Vinyl Ether	110-75-8	16	11	2	0.94
10237	Chloroform	67-66-3	22	5	1	0.94
10237	1-Chlorohexane	544-10-5	19	5	1	0.94
10237	Chloromethane	74-87-3	20	5	2	0.94
10237	2-Chlorotoluene	95-49-8	19	5	1	0.94
10237	4-Chlorotoluene	106-43-4	18	5	1	0.94
10237	Chlorotrifluoroethene	79-38-9	21	5	2	0.89
10237	1,2-Dibromo-3-chloropropane	96-12-8	16	5	2	0.94
10237	Dibromochloromethane	124-48-1	19	5	1	0.94
10237	1,2-Dibromoethane	106-93-4	19	5	1	0.94
10237	Dibromomethane	74-95-3	20	5	1	0.94
10237	1,2-Dichlorobenzene	95-50-1	19	5	1	0.94
10237	1,3-Dichlorobenzene	541-73-1	18	5	1	0.94
10237	1,4-Dichlorobenzene	106-46-7	18	5	1	0.94
10237	Dichlorodifluoromethane	75-71-8	22	5	2	0.94
10237	1,1-Dichloroethane	75-34-3	20	5	1	0.94
10237	1,2-Dichloroethane	107-06-2	22	5	1	0.94
10237	1,1-Dichloroethene	75-35-4	22	5	1	0.94
10237	cis-1,2-Dichloroethene	156-59-2	21	5	1	0.94
10237	trans-1,2-Dichloroethene	156-60-5	22	5	1	0.94
10237	1,2-Dichloropropane	78-87-5	20	5	1	0.94
10237	1,3-Dichloropropane	142-28-9	19	5	1	0.94
10237	2,2-Dichloropropane	594-20-7	19	5	1	0.94
10237	1,1-Dichloropropene	563-58-6	21	5	1	0.94
10237	cis-1,3-Dichloropropene	10061-01-5	18	5	1	0.94
10237	trans-1,3-Dichloropropene	10061-02-6	17	5	1	0.94
10237	Ethyl t-butyl ether	637-92-3	19	5	1	0.94
10237	Ethylbenzene	100-41-4	19	5	1	0.94
10237	Freon 113	76-13-1	19	5	2	0.94
10237	Freon 133a	75-88-7	23	5	2	0.89
10237	Hexachlorobutadiene	87-68-3	16	5	2	0.94
10237	2-Hexanone	591-78-6	86	11	3	0.94

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: SVL-511-SA5D-4.5-5.5MSD Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7475239
LL Group # 1476755
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 08:30 by VV

Submitted: 05/23/2014 09:50
Reported: 06/17/2014 16:37

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

5115D SDG#: PH194-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg	ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	19	5	1	0.94
10237	Isopropylbenzene	98-82-8	19	5	1	0.94
10237	p-Isopropyltoluene	99-87-6	17	5	1	0.94
10237	Methyl Iodide	74-88-4	21	5	3	0.94
10237	Methyl Tertiary Butyl Ether	1634-04-4	19	5	0.5	0.94
10237	4-Methyl-2-pentanone	108-10-1	88	11	3	0.94
10237	Methylene Chloride	75-09-2	21	5	2	0.94
10237	n-Propylbenzene	103-65-1	19	5	1	0.94
10237	Styrene	100-42-5	19	5	1	0.94
10237	1,1,1,2-Tetrachloroethane	630-20-6	20	5	1	0.94
10237	1,1,2,2-Tetrachloroethane	79-34-5	18	5	1	0.94
10237	Tetrachloroethene	127-18-4	24	5	1	0.94
10237	Toluene	108-88-3	19	5	1	0.94
10237	1,2,3-Trichlorobenzene	87-61-6	16	5	1	0.94
10237	1,2,4-Trichlorobenzene	120-82-1	16	5	1	0.94
10237	1,1,1-Trichloroethane	71-55-6	20	5	1	0.94
10237	1,1,2-Trichloroethane	79-00-5	20	5	1	0.94
10237	Trichloroethene	79-01-6	21	5	1	0.94
10237	Trichlorofluoromethane	75-69-4	22	5	2	0.94
10237	1,2,3-Trichloropropane	96-18-4	19	5	1	0.94
10237	1,2,4-Trimethylbenzene	95-63-6	18	5	1	0.94
10237	1,3,5-Trimethylbenzene	108-67-8	18	5	1	0.94
10237	Vinyl Acetate	108-05-4	40	10	2	0.89
10237	Vinyl Chloride	75-01-4	21	5	1	0.94
10237	m+p-Xylene	179601-23-1	37	5	1	0.94
10237	o-Xylene	95-47-6	19	5	1	0.94
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	14a Moisture Content by 160.3	n.a.	11.6	0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	12.3	0.10	0.10	1

The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141491AA	05/29/2014 07:49	Stephanie A Selis	0.94
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141491AA	05/29/2014 08:34	Stephanie A Selis	0.89

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: SVL-511-SA5D-4.5-5.5MSD Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7475239
LL Group # 1476755
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 08:30 by VV

Submitted: 05/23/2014 09:50
Reported: 06/17/2014 16:37

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

5115D SDG#: PH194-02MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201414334606	05/23/2014 19:52	Mitchell R Washel	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201414334606	05/23/2014 19:52	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201414334606	05/23/2014 19:49	Mitchell R Washel	n.a.
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401B	05/28/2014 20:40	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401B	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: SVL-811-SA5D-4.5-5.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7475240
LL Group # 1476755
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 08:35 by VV

Submitted: 05/23/2014 09:50
Reported: 06/17/2014 16:37

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

8115D SDG#: PH194-03*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	21	U	21	7	0.95
10237	Acrolein	107-02-8	110	U	110	21	0.95
10237	Acrylonitrile	107-13-1	21	U	21	4	0.95
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.95
10237	Benzene	71-43-2	5	U	5	0.5	0.95
10237	Bromobenzene	108-86-1	5	U	5	1	0.95
10237	Bromochloromethane	74-97-5	5	U	5	1	0.95
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.95
10237	Bromoform	75-25-2	5	U	5	1	0.95
10237	Bromomethane	74-83-9	5	U	5	2	0.95
10237	2-Butanone	78-93-3	11	U	11	4	0.95
10237	t-Butyl alcohol	75-65-0	53	U	53	21	0.95
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.95
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.95
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.95
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.95
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.95
10237	Chlorobenzene	108-90-7	5	U	5	1	0.95
10237	Chloroethane	75-00-3	5	U	5	2	0.95
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	0.95
10237	Chloroform	67-66-3	5	U	5	1	0.95
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.95
10237	Chloromethane	74-87-3	5	U	5	2	0.95
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.95
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.95
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.95
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.95
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.95
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.95
10237	Dibromomethane	74-95-3	5	U	5	1	0.95
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.95
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.95
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.95
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.95
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.95
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.95
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.95
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.95
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.95
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.95
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.95
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.95
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.95
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.95
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.95
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.95
10237	Ethylbenzene	100-41-4	5	U	5	1	0.95
10237	Freon 113	76-13-1	5	U	5	2	0.95
10237	Freon 133a	75-88-7	5	U	5	2	0.95
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.95
10237	2-Hexanone	591-78-6	11	U	11	3	0.95

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: SVL-811-SA5D-4.5-5.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7475240
LL Group # 1476755
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 08:35 by VV

Submitted: 05/23/2014 09:50
Reported: 06/17/2014 16:37

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

8115D SDG#: PH194-03*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.95
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.95
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.95
10237	Methyl Iodide	74-88-4	5	U	5	3	0.95
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.95
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	0.95
10237	Methylene Chloride	75-09-2	5	U	5	2	0.95
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.95
10237	Styrene	100-42-5	5	U	5	1	0.95
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.95
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.95
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.95
10237	Toluene	108-88-3	5	U	5	1	0.95
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.95
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.95
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.95
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.95
10237	Trichloroethene	79-01-6	5	U	5	1	0.95
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.95
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.95
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.95
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.95
10237	Vinyl Acetate	108-05-4	11	U	11	2	0.95
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.95
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.95
10237	o-Xylene	95-47-6	5	U	5	1	0.95
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	11.5		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141491AA	05/29/2014 08:57	Stephanie A Selis	0.95
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201414334606	05/23/2014 19:52	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: SVL-811-SA5D-4.5-5.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7475240
LL Group # 1476755
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 08:35 by VV

Submitted: 05/23/2014 09:50
Reported: 06/17/2014 16:37

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

8115D SDG#: PH194-03*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201414334606	05/23/2014 19:52	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201414334606	05/23/2014 19:51	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401B	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476755
Reported: 06/17/14 at 04:37 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B141491AA	Sample number(s): 7475237-7475240								
Acetone	20 U	20.	7	ug/kg	108	112	41-149	3	30
Acrolein	100 U	100.	20	ug/kg	92	88	50-137	5	30
Acrylonitrile	20 U	20.	4	ug/kg	91	88	58-123	3	30
t-Amyl methyl ether	5 U	5.	1	ug/kg	86	88	63-130	2	30
Benzene	5 U	5.	0.5	ug/kg	96	93	80-120	3	30
Bromobenzene	5 U	5.	1	ug/kg	96	99	78-120	3	30
Bromochloromethane	5 U	5.	1	ug/kg	120	117	75-129	2	30
Bromodichloromethane	5 U	5.	1	ug/kg	96	95	75-120	1	30
Bromoform	5 U	5.	1	ug/kg	102	96	70-126	6	30
Bromomethane	5 U	5.	2	ug/kg	109	108	32-162	1	30
2-Butanone	10 U	10.	4	ug/kg	98	99	47-136	1	30
t-Butyl alcohol	50 U	50.	20	ug/kg	93	99	66-133	6	30
n-Butylbenzene	5 U	5.	1	ug/kg	95	93	72-120	2	30
sec-Butylbenzene	5 U	5.	1	ug/kg	97	93	69-120	4	30
tert-Butylbenzene	5 U	5.	1	ug/kg	94	95	75-120	1	30
Carbon Disulfide	5 U	5.	1	ug/kg	73	71	63-128	3	30
Carbon Tetrachloride	5 U	5.	1	ug/kg	98	96	69-130	2	30
Chlorobenzene	5 U	5.	1	ug/kg	100	95	80-120	5	30
Chloroethane	5 U	5.	2	ug/kg	102	101	17-171	1	30
2-Chloroethyl Vinyl Ether	10 U	10.	2	ug/kg	87	90	52-134	3	30
Chloroform	5 U	5.	1	ug/kg	108	106	80-120	2	30
1-Chlorohexane	5 U	5.	1	ug/kg	91	85	70-130	6	30
Chloromethane	5 U	5.	2	ug/kg	89	85	56-120	4	30
2-Chlorotoluene	5 U	5.	1	ug/kg	93	93	78-120	0	30
4-Chlorotoluene	5 U	5.	1	ug/kg	94	96	79-120	2	30
Chlorotrifluoroethene	5 U	5.	2	ug/kg	95	89	22-131	6	30
1,2-Dibromo-3-chloropropane	5 U	5.	2	ug/kg	79	90	50-132	13	30
Dibromochloromethane	5 U	5.	1	ug/kg	99	95	77-120	4	30
1,2-Dibromoethane	5 U	5.	1	ug/kg	98	97	80-120	2	30
Dibromomethane	5 U	5.	1	ug/kg	101	99	75-120	2	30
1,2-Dichlorobenzene	5 U	5.	1	ug/kg	99	98	80-120	1	30
1,3-Dichlorobenzene	5 U	5.	1	ug/kg	93	98	80-120	5	30
1,4-Dichlorobenzene	5 U	5.	1	ug/kg	93	102	80-120	10	30
Dichlorodifluoromethane	5 U	5.	2	ug/kg	74	71	26-137	5	30
1,1-Dichloroethane	5 U	5.	1	ug/kg	99	96	71-122	2	30
1,2-Dichloroethane	5 U	5.	1	ug/kg	110	108	66-136	1	30
1,1-Dichloroethene	5 U	5.	1	ug/kg	103	100	73-129	3	30
cis-1,2-Dichloroethene	5 U	5.	1	ug/kg	104	100	80-120	4	30
trans-1,2-Dichloroethene	5 U	5.	1	ug/kg	106	103	79-120	3	30
1,2-Dichloropropane	5 U	5.	1	ug/kg	96	97	77-120	0	30
1,3-Dichloropropane	5 U	5.	1	ug/kg	93	92	73-120	1	30
2,2-Dichloropropane	5 U	5.	1	ug/kg	90	88	72-123	2	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476755
Reported: 06/17/14 at 04:37 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/kg	100	96	77-120	4	30
cis-1,3-Dichloropropene	5	U	5.	1	ug/kg	92	92	74-120	1	30
trans-1,3-Dichloropropene	5	U	5.	1	ug/kg	88	86	69-120	2	30
Ethyl t-butyl ether	5	U	5.	1	ug/kg	88	89	59-134	1	30
Ethylbenzene	5	U	5.	1	ug/kg	98	94	80-120	4	30
Freon 113	5	U	5.	2	ug/kg	74	71	64-137	3	30
Freon 133a	5	U	5.	2	ug/kg	118	113	78-120	3	30
Hexachlorobutadiene	5	U	5.	2	ug/kg	105	105	46-130	0	30
2-Hexanone	10	U	10.	3	ug/kg	86	85	40-129	0	30
di-Isopropyl ether	5	U	5.	1	ug/kg	92	92	68-128	0	30
Isopropylbenzene	5	U	5.	1	ug/kg	101	97	76-120	4	30
p-Isopropyltoluene	5	U	5.	1	ug/kg	89	88	69-120	2	30
Methyl Iodide	5	U	5.	3	ug/kg	102	99	72-130	3	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/kg	93	91	69-126	2	30
4-Methyl-2-pentanone	10	U	10.	3	ug/kg	91	92	43-133	1	30
Methylene Chloride	5	U	5.	2	ug/kg	104	103	80-124	1	30
n-Propylbenzene	5	U	5.	1	ug/kg	95	96	77-120	1	30
Styrene	5	U	5.	1	ug/kg	101	96	76-120	4	30
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/kg	98	95	80-120	3	30
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/kg	86	93	71-123	8	30
Tetrachloroethene	5	U	5.	1	ug/kg	106	103	78-120	3	30
Toluene	5	U	5.	1	ug/kg	94	89	80-120	5	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/kg	105	100	64-120	5	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/kg	97	99	68-120	3	30
1,1,1-Trichloroethane	5	U	5.	1	ug/kg	95	93	63-135	2	30
1,1,2-Trichloroethane	5	U	5.	1	ug/kg	98	100	80-120	1	30
Trichloroethene	5	U	5.	1	ug/kg	102	101	80-120	1	30
Trichlorofluoromethane	5	U	5.	2	ug/kg	91	86	58-133	5	30
1,2,3-Trichloropropane	5	U	5.	1	ug/kg	94	100	71-123	6	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/kg	95	93	79-120	2	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/kg	94	95	78-120	2	30
Vinyl Acetate	10	U	10.	2	ug/kg	74	70	40-127	6	30
Vinyl Chloride	5	U	5.	1	ug/kg	93	92	59-120	1	30
m+p-Xylene	5	U	5.	1	ug/kg	99	97	80-120	2	30
o-Xylene	5	U	5.	1	ug/kg	97	94	80-120	3	30
Batch number: Y141471AA	Sample number(s): 7475236									
Acetone	20	U	20.	6	ug/l	78	84	43-149	7	30
Acrolein	100 U		100.	40	ug/l	94	89	52-129	4	30
Acrylonitrile	20	U	20.	4	ug/l	77	83	62-120	7	30
t-Amyl methyl ether	5	U	5.	0.5	ug/l	98	99	75-120	1	30
Benzene	5	U	5.	0.5	ug/l	104	105	78-120	1	30
Bromobenzene	5	U	5.	1	ug/l	103	103	80-120	0	30
Bromochloromethane	5	U	5.	1	ug/l	102	103	80-121	0	30
Bromodichloromethane	5	U	5.	0.5	ug/l	99	99	73-120	0	30
Bromoform	5	U	5.	0.5	ug/l	86	85	61-120	1	30
Bromomethane	5	U	5.	0.5	ug/l	104	105	58-120	1	30
2-Butanone	10	U	10.	3	ug/l	72	79	54-133	9	30
t-Butyl alcohol	50	U	50.	5	ug/l	97	103	75-120	7	30
n-Butylbenzene	5	U	5.	1	ug/l	100	100	68-120	0	30
sec-Butylbenzene	5	U	5.	1	ug/l	102	104	80-120	2	30
tert-Butylbenzene	5	U	5.	1	ug/l	100	103	73-120	3	30
Carbon Disulfide	5	U	5.	1	ug/l	69	68	58-126	2	30
Carbon Tetrachloride	5	U	5.	0.5	ug/l	107	109	74-130	2	30
Chlorobenzene	5	U	5.	0.5	ug/l	104	103	80-120	1	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476755
Reported: 06/17/14 at 04:37 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroethane	5	U	5.	0.5	ug/l	89	89	56-120	1	30
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/l	102	103	54-126	1	30
Chloroform	5	U	5.	0.5	ug/l	106	107	80-122	1	30
1-Chlorohexane	5	U	5.	1	ug/l	104	105	80-120	1	30
Chloromethane	5	U	5.	0.5	ug/l	118	120	63-120	2	30
2-Chlorotoluene	5	U	5.	1	ug/l	100	101	80-120	1	30
4-Chlorotoluene	5	U	5.	1	ug/l	100	101	80-120	1	30
Chlorotrifluoroethene	5	U	5.	2	ug/l	46*	48	47-120	5	30
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/l	75	83	56-120	10	30
Dibromochloromethane	5	U	5.	0.5	ug/l	101	98	72-120	3	30
1,2-Dibromoethane	5	U	5.	0.5	ug/l	100	101	76-120	1	30
Dibromomethane	5	U	5.	0.5	ug/l	98	99	80-120	1	30
1,2-Dichlorobenzene	5	U	5.	1	ug/l	101	102	80-120	1	30
1,3-Dichlorobenzene	5	U	5.	1	ug/l	101	102	80-120	1	30
1,4-Dichlorobenzene	5	U	5.	1	ug/l	103	103	80-120	1	30
Dichlorodifluoromethane	5	U	5.	0.5	ug/l	115	116	48-132	1	30
1,1-Dichloroethane	5	U	5.	0.5	ug/l	98	99	80-120	1	30
1,2-Dichloroethane	5	U	5.	0.5	ug/l	106	106	65-135	0	30
1,1-Dichloroethene	5	U	5.	0.5	ug/l	112	113	76-124	1	30
cis-1,2-Dichloroethene	5	U	5.	0.5	ug/l	105	106	80-120	1	30
trans-1,2-Dichloroethene	5	U	5.	0.5	ug/l	116	118	80-120	2	30
1,2-Dichloropropane	5	U	5.	0.5	ug/l	101	101	80-120	0	30
1,3-Dichloropropane	5	U	5.	0.5	ug/l	99	99	80-120	0	30
2,2-Dichloropropane	5	U	5.	0.5	ug/l	104	104	67-124	1	30
1,1-Dichloropropene	5	U	5.	1	ug/l	110	110	80-120	1	30
cis-1,3-Dichloropropene	5	U	5.	0.5	ug/l	96	96	80-120	0	30
trans-1,3-Dichloropropene	5	U	5.	0.5	ug/l	95	95	76-120	0	30
Ethyl t-butyl ether	5	U	5.	0.5	ug/l	97	98	74-120	1	30
Ethylbenzene	5	U	5.	0.5	ug/l	102	103	79-120	0	30
Freon 113	5	U	5.	2	ug/l	101	100	67-127	0	30
Freon 133a	5	U	5.	2	ug/l	79	82	46-152	3	30
Hexachlorobutadiene	5	U	5.	2	ug/l	100	98	51-125	2	30
2-Hexanone	10	U	10.	3	ug/l	74	80	44-126	8	30
di-Isopropyl ether	5	U	5.	0.5	ug/l	98	98	65-120	1	30
Isopropylbenzene	5	U	5.	1	ug/l	104	104	77-120	0	30
p-Isopropyltoluene	5	U	5.	1	ug/l	100	101	80-120	1	30
Methyl Iodide	5	U	5.	0.5	ug/l	105	106	75-128	1	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/l	108	108	75-120	0	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	78	84	51-124	6	30
Methylene Chloride	5	U	5.	2	ug/l	116	116	80-120	0	30
n-Propylbenzene	5	U	5.	1	ug/l	102	102	80-120	0	30
Styrene	5	U	5.	1	ug/l	104	103	80-120	0	30
1,1,1,2-Tetrachloroethane	5	U	5.	0.5	ug/l	103	101	80-120	2	30
1,1,2,2-Tetrachloroethane	5	U	5.	0.5	ug/l	89	92	70-120	4	30
Tetrachloroethene	5	U	5.	0.5	ug/l	107	108	80-120	1	30
Toluene	5	U	5.	0.5	ug/l	104	104	80-120	0	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	102	104	58-126	2	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	103	104	65-120	1	30
1,1,1-Trichloroethane	5	U	5.	0.5	ug/l	96	94	66-126	1	30
1,1,2-Trichloroethane	5	U	5.	0.5	ug/l	98	100	80-120	2	30
Trichloroethene	5	U	5.	0.5	ug/l	106	109	80-120	3	30
Trichlorofluoromethane	5	U	5.	0.5	ug/l	117	115	65-130	2	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	89	94	76-120	5	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	103	103	74-120	0	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	102	104	74-120	1	30
Vinyl Acetate	10	U	10.	2	ug/l	74	74	56-135	0	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476755
Reported: 06/17/14 at 04:37 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vinyl Chloride	5	U	5.	0.5	ug/l	111	112	63-120	1	30
m+p-Xylene	5	U	5.	0.5	ug/l	102	102	80-120	0	30
o-Xylene	5	U	5.	0.5	ug/l	102	102	80-120	0	30
Batch number: 14148162401B	Sample number(s): 7475237-7475240									
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: B141491AA	Sample number(s): 7475237-7475240 UNSPK: 7475237								
Acetone	109	118	31-195	7	30				
Acrolein	87	71	10-165	22	30				
Acrylonitrile	75	82	48-139	8	30				
t-Amyl methyl ether	83	85	50-132	2	30				
Benzene	101	94	55-143	8	30				
Bromobenzene	109	92	43-139	18	30				
Bromochloromethane	118	110	60-137	8	30				
Bromodichloromethane	98	91	53-136	8	30				
Bromoform	94	91	50-144	4	30				
Bromomethane	121	111	42-168	9	30				
2-Butanone	85	93	37-163	8	30				
t-Butyl alcohol	95	88	47-153	8	30				
n-Butylbenzene	115	76	30-146	42*	30				
sec-Butylbenzene	109	88	33-157	23	30				
tert-Butylbenzene	108	86	41-152	23	30				
Carbon Disulfide	78	71	48-146	9	30				
Carbon Tetrachloride	109	100	51-165	9	30				
Chlorobenzene	105	93	49-135	13	30				
Chloroethane	114	106	39-152	8	30				
2-Chloroethyl Vinyl Ether	73	76	32-139	3	30				
Chloroform	111	105	61-142	7	30				
1-Chlorohexane	106	89	70-130	18	30				
Chloromethane	102	93	36-143	9	30				
2-Chlorotoluene	105	88	42-146	18	30				
4-Chlorotoluene	108	85	39-145	24	30				
Chlorotrifluoroethene	109	105	70-130	0	30				
1,2-Dibromo-3-chloropropane	79	74	34-165	7	30				
Dibromochloromethane	97	90	51-128	8	30				
1,2-Dibromoethane	95	91	54-129	5	30				
Dibromomethane	95	93	57-130	3	30				
1,2-Dichlorobenzene	111	89	36-133	24	30				
1,3-Dichlorobenzene	108	86	34-134	24	30				
1,4-Dichlorobenzene	108	83	35-136	27	30				
Dichlorodifluoromethane	106	102	26-151	5	30				
1,1-Dichloroethane	100	95	63-142	7	30				
1,2-Dichloroethane	108	104	54-143	5	30				

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476755
Reported: 06/17/14 at 04:37 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
1,1-Dichloroethene	111	105	61-149	6	30				
cis-1,2-Dichloroethene	103	98	67-135	6	30				
trans-1,2-Dichloroethene	111	103	64-144	9	30				
1,2-Dichloropropane	97	93	54-144	6	30				
1,3-Dichloropropane	94	89	51-140	6	30				
2,2-Dichloropropane	94	88	53-147	8	30				
1,1-Dichloropropene	106	97	54-145	10	30				
cis-1,3-Dichloropropene	88	86	45-137	3	30				
trans-1,3-Dichloropropene	85	82	51-134	5	30				
Ethyl t-butyl ether	85	87	58-124	2	30				
Ethylbenzene	102	91	44-141	13	30				
Freon 113	102	91	56-156	12	30				
Freon 133a	118	116	61-131	2	30				
Hexachlorobutadiene	127	75	10-155	53*	30				
2-Hexanone	74	81	32-160	8	30				
di-Isopropyl ether	91	90	59-133	3	30				
Isopropylbenzene	108	89	38-144	21	30				
p-Isopropyltoluene	103	79	29-152	28	30				
Methyl Iodide	106	99	52-139	8	30				
Methyl Tertiary Butyl Ether	86	90	55-129	4	30				
4-Methyl-2-pentanone	75	82	46-139	9	30				
Methylene Chloride	107	100	60-149	7	30				
n-Propylbenzene	111	88	39-157	23	30				
Styrene	105	90	35-134	16	30				
1,1,1,2-Tetrachloroethane	101	92	55-139	11	30				
1,1,2,2-Tetrachloroethane	88	87	29-182	2	30				
Tetrachloroethene	134	112	42-149	19	30				
Toluene	102	87	50-146	16	30				
1,2,3-Trichlorobenzene	104	75	10-140	33*	30				
1,2,4-Trichlorobenzene	102	73	10-136	33*	30				
1,1,1-Trichloroethane	99	93	52-146	7	30				
1,1,2-Trichloroethane	99	95	58-152	5	30				
Trichloroethene	105	97	53-144	9	30				
Trichlorofluoromethane	116	104	47-163	12	30				
1,2,3-Trichloropropane	95	91	36-180	5	30				
1,2,4-Trimethylbenzene	104	86	37-149	20	30				
1,3,5-Trimethylbenzene	109	87	38-150	24	30				
Vinyl Acetate	46	40	21-139	12	30				
Vinyl Chloride	111	100	50-154	11	30				
m+p-Xylene	104	88	44-137	18	30				
o-Xylene	101	89	42-137	14	30				
Batch number: 14148162401B	Sample number(s): 7475237-7475240					BKG: 7475237			
14a Moisture Content by 160.3						11.6	12.3	6	20
14a Moisture Content by 160.3						11.6	12.3	6	20
14a Moisture Content by 160.3						11.6	12.3	6	20

Surrogate Quality Control

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476755
Reported: 06/17/14 at 04:37 PM

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12a Volatile Organics EPA8260B
Batch number: B141491AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7475237	106	102	97	94
7475238	104	98	103	100
7475239	106	105	102	102
7475240	105	107	97	92
Blank	109	104	97	94
LCS	106	105	97	109
LCSD	106	103	98	102
MS	104	98	103	100
MSD	106	105	102	102
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141471AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7475236	102	102	99	95
Blank	101	100	99	96
LCS	101	99	100	100
LCSD	101	101	100	99
Limits:	86-118	80-120	88-110	86-115

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/22/2014
CarrierName: FedEx
AirbillNo: 770073250078

A-13013
G-1476755
S-7475236-40

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140522-03
Cooler #: 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
TB2-052214	5/22/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																		X																	
SVL-511-SA5D-SB-4.5-5.5MS	5/22/14 08:30	SO	None	9 - Encore	10 day																		X																	
SVL-511-SA5D-SB-4.5-5.5MS	5/22/14 08:30	SO	None	1 - 8 oz glass	10 day																		X																	Soil Moisture
SVL-811-SA5D-SB-4.5-5.5	5/22/14 08:35	SO	None	3 - Encore	10 day																		X																	
SVL-811-SA5D-SB-4.5-5.5	5/22/14 08:35	SO	None	1 - 4 oz glass	10 day																		X																	Soil Moisture

Special Instructions:

Sampler: Va Vathavooran

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Shaya Mupedes	5/22/14	1600									
									Brandy Ray	5.23.14	950

Soil Vapor

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 15429

Group Number(s): 1476755

Client: CDM

SSFL

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/23/2014 9:50
Number of Packages:	3	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	9
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Brandy Barclay (2299) at 10:58 on 05/23/2014

Samples Chilled Details: SSFL

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT146	1.6	DT	Wet	Y	Bagged	N	N
2	DT146	1.0	DT	Wet	Y	Bagged	N	N
3	DT146	1.5	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 09, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/23/2014
Group Number: 1476783
SDG: PH195
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB3-052214 Water	7475533
SL-730-SA5A-TR-0.5 Soil	7475534
SL-730-SA5A-TR-6.0 Soil	7475535
SL-587-SA5A-TR-0.5 Soil	7475536
SL-587-SA5A-TR-5.5 Soil	7475537
SL-587-SA5A-TR-5.5MS Soil	7475538
SL-587-SA5A-TR-5.5MSD Soil	7475539
SL-587-SA5A-TR-5.5DUP Soil	7475540
SL-887-SA5A-TR-5.5 Soil	7475541
EB3-052214 Water	7475542

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: TB3-052214 Water
SSFL Phase 3 Subarea 5A

LL Sample # WW 7475533
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 08:00

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

3-TB- SDG#: PH195-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14149A94A	05/29/2014 23:46	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14149A94A	05/29/2014 23:46	Miranda P Tillinghast	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-730-SA5A-TR-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475534
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 09:56 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

73005 SDG#: PH195-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	0.55	J	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.0	J	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	2.9		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.4	J	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	1.1	J	1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	6.2	J	18	6.1	1
12969	Chrysene	218-01-9	7.1		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	16	J	18	6.1	1
12969	Fluoranthene	206-44-0	3.9		1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.0	J	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.68	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	1.7		1.7	0.68	1
12969	Pyrene	129-00-0	3.1		1.7	0.68	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: benzo(e)pyrene

Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	41		33	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.1	1
13099	PCB-1232	11141-16-5	17	U	17	4.1	1
13099	PCB-1242	53469-21-9	17	U	17	4.1	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	44		17	4.4	1
13099	PCB-1260	11096-82-5	17	U	17	3.9	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1

For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.

GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

Sample Description: SL-730-SA5A-TR-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475534
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 09:56 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

73005 SDG#: PH195-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	10	U	10	4.1	2
12952	EFH (C15-C20)	n.a.	10	U	10	4.1	2
12952	EFH (C21-C30)	n.a.	18		10	4.1	2
12952	EFH (C30-C40)	n.a.	50		20	8.2	2
12952	EFH (C8-C11)	n.a.	10	U	10	4.1	2
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	2.1	J	5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,700		40.2	7.24	1
06944	Antimony	7440-36-0	4.02	U	4.02	0.743	1
06935	Arsenic	7440-38-2	3.09	J	4.02	0.703	1
06946	Barium	7440-39-3	98.4		1.00	0.0331	1
06947	Beryllium	7440-41-7	0.628	J	1.00	0.0673	1
07914	Boron	7440-42-8	5.72	J	10.0	0.844	1
06949	Cadmium	7440-43-9	0.697	J	1.00	0.0763	1
01650	Calcium	7440-70-2	2,600		20.1	3.36	1
06951	Chromium	7440-47-3	18.0		3.01	0.161	1
06952	Cobalt	7440-48-4	4.73		1.00	0.0994	1
06953	Copper	7440-50-8	11.0		2.01	0.291	1
01654	Iron	7439-89-6	18,700		40.2	3.64	1
06955	Lead	7439-92-1	16.2		3.01	0.502	1
01656	Lithium	7439-93-2	19.5		4.0	0.34	1
01657	Magnesium	7439-95-4	4,100		10.0	1.68	1
06958	Manganese	7439-96-5	295		1.00	0.0834	1
06960	Molybdenum	7439-98-7	0.455	J	2.01	0.171	1
06961	Nickel	7440-02-0	9.71		2.01	0.131	1
10145	Phosphorus	7723-14-0	341		10.0	2.90	1
01662	Potassium	7440-09-7	3,660		100	8.38	1
01667	Sodium	7440-23-5	83.0	J	100	16.8	1
06969	Tin	7440-31-5	2.89	J	10.0	0.221	1
06970	Titanium	7440-32-6	1,130		1.00	0.171	1
06971	Vanadium	7440-62-2	34.2		1.00	0.131	1
06972	Zinc	7440-66-6	123		4.02	0.201	1
10146	Zirconium	7440-67-7	3.39	J	5.02	0.844	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.237	J	0.402	0.100	2
06142	Silver	7440-22-4	2.47		0.201	0.0261	2
06144	Strontium	7440-24-6	17.9		0.402	0.0683	2
06145	Thallium	7440-28-0	0.233		0.201	0.0301	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0409		0.0166	0.0099	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-730-SA5A-TR-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475534
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 09:56 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

73005 SDG#: PH195-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 21.9 C.	n.a.	6.36	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	2.4	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-730-SA5A-TR-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475534
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 09:56 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

73005 SDG#: PH195-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.99	B	1.02	0.0491	1
11031	12378-PeCDD	40321-76-4	0.885	JB	5.08	0.0472	1
11031	123478-HxCDD	39227-28-6	1.21	JB	5.08	0.0422	1
11031	123678-HxCDD	57653-85-7	3.68	JB	5.08	0.0435	1
11031	123789-HxCDD	19408-74-3	2.33	JB	5.08	0.0397	1
11031	1234678-HpCDD	35822-46-9	90.2	B	5.08	0.0827	1
11031	OCDD	3268-87-9	1,050	B	10.2	0.0515	1
11031	2378-TCDF	51207-31-9	0.863	JB	1.02	0.100	1
11031	12378-PeCDF	57117-41-6	1.95	JBQ	5.08	0.0412	1
11031	23478-PeCDF	57117-31-4	1.37	JB	5.08	0.0408	1
11031	123478-HxCDF	70648-26-9	1.34	JB	5.08	0.0521	1
11031	123678-HxCDF	57117-44-9	1.55	JB	5.08	0.0467	1
11031	123789-HxCDF	72918-21-9	0.692	JB	5.08	0.0551	1
11031	234678-HxCDF	60851-34-5	1.63	JB	5.08	0.0499	1
11031	1234678-HpCDF	67562-39-4	23.4	B	5.08	0.0291	1
11031	1234789-HpCDF	55673-89-7	2.29	JB	5.08	0.0430	1
11031	OCDF	39001-02-0	68.2	B	10.2	0.0301	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	6.11				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	85	25 - 164
13C12-12378-PeCDD	93	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	90	28 - 130
13C12-1234678-HpCDD	83	23 - 140
13C12-OCDD	77	17 - 157
13C12-2378-TCDF	95	24 - 169
13C12-12378-PeCDF	102	24 - 185
13C12-23478-PeCDF	96	21 - 178
13C12-123478-HxCDF	79	26 - 152
13C12-123678-HxCDF	87	26 - 123
13C12-234678-HxCDF	82	28 - 136
13C12-123789-HxCDF	79	29 - 147
13C12-1234678-HpCDF	96	28 - 143
13C12-1234789-HpCDF	71	26 - 138
13C12-OCDF	61	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-730-SA5A-TR-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475534
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 09:56 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

73005 SDG#: PH195-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-730-SA5A-TR-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475534
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 09:56 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

73005 SDG#: PH195-02

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14155SLA026	06/06/2014 08:42	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	14155SLA026	06/05/2014 02:15	Sherry L Morrow	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440035A	05/28/2014 08:45	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440035A	05/27/2014 06:30	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141470033A	05/29/2014 20:45	Heather E Williams	2
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141470034A	05/31/2014 01:10	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141470034A	05/28/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141470033A	05/28/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14153005	06/05/2014 11:08	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14153005	06/02/2014 11:45	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141490637001	06/02/2014 09:20	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141490637001	06/02/2014 09:20	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141490637001	06/02/2014 09:20	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141490637001	06/02/2014 09:20	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141490637001	06/02/2014 09:20	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141490637001	06/02/2014 09:20	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141490637001	06/02/2014 09:20	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141490637001	06/02/2014 09:20	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141490637001	06/02/2014 09:20	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141490637001	06/02/2014 09:20	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141490637001	06/02/2014 09:20	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141490637001	06/02/2014 09:20	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141490637001	06/02/2014 09:20	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141490637001	06/02/2014 09:20	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141490637001	06/02/2014 09:20	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141490637001	06/02/2014 09:20	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141490637001	06/02/2014 09:20	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141490637001	06/02/2014 09:20	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141490637001	06/02/2014 09:20	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141490637001	06/02/2014 09:20	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141490637001	06/02/2014 09:20	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141490637001	06/02/2014 09:20	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141490637001	06/02/2014 22:10	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141490637001	06/02/2014 22:10	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141490637001	06/02/2014 09:20	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141490637001	06/02/2014 09:20	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-730-SA5A-TR-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475534
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 09:56 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

73005 SDG#: PH195-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	141490637001B	06/02/2014 14:21	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141490637001A	06/02/2014 14:21	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141490637001A	06/02/2014 14:21	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141490637001A	06/02/2014 14:21	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638002	06/04/2014 20:16	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141490637001	06/01/2014 22:20	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638002	06/02/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14144039401A	05/24/2014 10:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401C	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-730-SA5A-TR-6.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475535
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 10:09 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

73060 SDG#: PH195-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.72	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.72	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.72	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.72	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.72	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.72	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.5	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.5	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.72	1
12969	Diethylphthalate	84-66-2	20	U	20	6.5	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.5	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20	U	20	6.5	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.72	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.72	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.72	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.72	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.72	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.72	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.72	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.5	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.72	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.72	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	0.9	U	0.9	0.2	21.74
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.4	1
13099	PCB-1242	53469-21-9	18	U	18	4.4	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.7	1
13099	PCB-1260	11096-82-5	18	U	18	4.2	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1

For all QC parameters which are outside project defined limits,

*=This limit was used in the evaluation of the final result

Sample Description: SL-730-SA5A-TR-6.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475535
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 10:09 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

73060 SDG#: PH195-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	but within the laboratory statistical limits, no corrective action is taken.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.4	U	5.4	2.2	1
12952	EFH (C15-C20)	n.a.	5.4	U	5.4	2.2	1
12952	EFH (C21-C30)	n.a.	5.4	U	5.4	2.2	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.3	1
12952	EFH (C8-C11)	n.a.	5.4	U	5.4	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.3	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
	The reverse surrogate, capric acid, is present at <1%.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	21,500		42.9	7.73	1
06944	Antimony	7440-36-0	4.29	U	4.29	0.794	1
06935	Arsenic	7440-38-2	5.45		4.29	0.751	1
06946	Barium	7440-39-3	103		1.07	0.0354	1
06947	Beryllium	7440-41-7	1.03	J	1.07	0.0719	1
07914	Boron	7440-42-8	5.74	J	10.7	0.901	1
06949	Cadmium	7440-43-9	1.07	U	1.07	0.0815	1
01650	Calcium	7440-70-2	2,390		21.5	3.58	1
06951	Chromium	7440-47-3	22.6		3.22	0.172	1
06952	Cobalt	7440-48-4	5.57		1.07	0.106	1
06953	Copper	7440-50-8	7.20		2.15	0.311	1
01654	Iron	7439-89-6	25,000		42.9	3.88	1
06955	Lead	7439-92-1	5.70		3.22	0.536	1
01656	Lithium	7439-93-2	22.5		4.3	0.36	1
01657	Magnesium	7439-95-4	4,940		10.7	1.79	1
06958	Manganese	7439-96-5	195		1.07	0.0890	1
06960	Molybdenum	7439-98-7	0.516	J	2.15	0.182	1
06961	Nickel	7440-02-0	9.84		2.15	0.139	1
10145	Phosphorus	7723-14-0	126		10.7	3.10	1
01662	Potassium	7440-09-7	1,950		107	8.95	1
01667	Sodium	7440-23-5	118		107	17.9	1
06969	Tin	7440-31-5	3.29	J	10.7	0.236	1
06970	Titanium	7440-32-6	1,410		1.07	0.182	1
06971	Vanadium	7440-62-2	48.2		1.07	0.139	1
06972	Zinc	7440-66-6	42.3		4.29	0.215	1
10146	Zirconium	7440-67-7	4.65	J	5.36	0.901	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.313	J	0.429	0.107	2
06142	Silver	7440-22-4	0.0418	J	0.215	0.0279	2
06144	Strontium	7440-24-6	23.1		0.429	0.0729	2
06145	Thallium	7440-28-0	0.281		0.215	0.0322	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

Sample Description: SL-730-SA5A-TR-6.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475535
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 10:09 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

73060 SDG#: PH195-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 7471B**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.313	0.0179	0.0107	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 21.9 C.	n.a.	5.95	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	7.7	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-730-SA5A-TR-6.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475535
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 10:09 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

73060 SDG#: PH195-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0781 JBQ	1.07	0.0515	1
11031	12378-PeCDD	40321-76-4	0.0399 JBQ	5.35	0.0317	1
11031	123478-HxCDD	39227-28-6	0.0855 JBQ	5.35	0.0236	1
11031	123678-HxCDD	57653-85-7	0.0705 JBQ	5.35	0.0236	1
11031	123789-HxCDD	19408-74-3	0.0816 JBQ	5.35	0.0223	1
11031	1234678-HpCDD	35822-46-9	0.538 JB	5.35	0.0268	1
11031	OCDD	3268-87-9	4.80 JB	10.7	0.0201	1
11031	2378-TCDF	51207-31-9	1.07 U	1.07	0.0467	1
11031	12378-PeCDF	57117-41-6	0.108 JBQ	5.35	0.0167	1
11031	23478-PeCDF	57117-31-4	0.0459 JBQ	5.35	0.0172	1
11031	123478-HxCDF	70648-26-9	0.0382 JBQ	5.35	0.0238	1
11031	123678-HxCDF	57117-44-9	0.0850 JBQ	5.35	0.0194	1
11031	123789-HxCDF	72918-21-9	0.0950 JBQ	5.35	0.0280	1
11031	234678-HxCDF	60851-34-5	0.0681 JBQ	5.35	0.0216	1
11031	1234678-HpCDF	67562-39-4	0.178 JBQ	5.35	0.0110	1
11031	1234789-HpCDF	55673-89-7	0.0847 JBQ	5.35	0.0213	1
11031	OCDF	39001-02-0	0.573 JB	10.7	0.0324	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.00699			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	85	25 - 164
13C12-12378-PeCDD	96	25 - 181
13C12-123478-HxCDD	86	32 - 141
13C12-123678-HxCDD	90	28 - 130
13C12-123789-HxCDD	92	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	86	17 - 157
13C12-2378-TCDF	89	24 - 169
13C12-12378-PeCDF	106	24 - 185
13C12-23478-PeCDF	95	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	90	26 - 123
13C12-234678-HxCDF	80	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	117	28 - 143
13C12-1234789-HpCDF	65	26 - 138
13C12-OCDF	56	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-730-SA5A-TR-6.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475535
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 10:09 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

73060 SDG#: PH195-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-730-SA5A-TR-6.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475535
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 10:09 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

73060 SDG#: PH195-03

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14155SLA026	06/06/2014 03:21	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	14155SLA026	06/05/2014 02:15	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147C16A	05/29/2014 20:04	Marie D Beamenderfer	21.74
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414334607	05/23/2014 19:50	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414334607	05/23/2014 19:50	Lisa J Cooke	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440035A	05/28/2014 09:04	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440035A	05/27/2014 06:30	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141470033A	05/28/2014 18:22	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141470034A	05/30/2014 18:42	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141470034A	05/28/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141470033A	05/28/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14153005	06/05/2014 12:05	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14153005	06/02/2014 11:45	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141490637001	06/02/2014 09:24	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141490637001	06/02/2014 09:24	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141490637001	06/02/2014 09:24	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141490637001	06/02/2014 09:24	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141490637001	06/02/2014 09:24	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141490637001	06/02/2014 09:24	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141490637001	06/02/2014 09:24	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141490637001	06/02/2014 09:24	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141490637001	06/02/2014 09:24	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141490637001	06/02/2014 09:24	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141490637001	06/02/2014 09:24	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141490637001	06/02/2014 09:24	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141490637001	06/02/2014 09:24	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141490637001	06/02/2014 09:24	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141490637001	06/02/2014 09:24	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141490637001	06/02/2014 09:24	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141490637001	06/02/2014 09:24	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141490637001	06/02/2014 09:24	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141490637001	06/02/2014 09:24	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141490637001	06/02/2014 09:24	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141490637001	06/02/2014 09:24	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141490637001	06/02/2014 09:24	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-730-SA5A-TR-6.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475535
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 10:09 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

73060 SDG#: PH195-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010C	1	141490637001	06/02/2014 22:14	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141490637001	06/02/2014 22:14	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141490637001	06/02/2014 09:24	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141490637001	06/02/2014 09:24	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141490637001B	06/02/2014 14:23	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141490637001A	06/02/2014 14:23	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141490637001A	06/02/2014 14:23	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141490637001A	06/02/2014 14:23	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638002	06/04/2014 20:18	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141490637001	06/01/2014 22:20	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638002	06/02/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14144039401A	05/24/2014 10:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401C	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475536
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 12:14 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

73005 SDG#: PH195-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	0.85	J	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	0.77	J	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	2.4		1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	2.4		1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	J	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	2.8		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	0.75	J	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.2	1
12969	Fluoranthene	206-44-0	0.70	J	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.77	J	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69	1
12969	Pyrene	129-00-0	0.99	J	1.7	0.69	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.4	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.2	1
13099	PCB-1242	53469-21-9	17	U	17	4.2	1
13099	PCB-1248	12672-29-6	17	U	17	3.4	1
13099	PCB-1254	11097-69-1	17	U	17	4.5	1
13099	PCB-1260	11096-82-5	7.3	J	17	4.0	1
13099	PCB-1262	37324-23-5	17	U	17	3.4	1
13099	PCB-1268	11100-14-4	17	U	17	3.4	1

For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.

GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475536
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 12:14 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

73005 SDG#: PH195-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	10	U	10	4.1	2
12952	EFH (C15-C20)	n.a.	10	U	10	4.1	2
12952	EFH (C21-C30)	n.a.	29		10	4.1	2
12952	EFH (C30-C40)	n.a.	87		21	8.3	2
12952	EFH (C8-C11)	n.a.	10	U	10	4.1	2
13197	EFH C12-C14 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	15		5.2	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	37		10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	16,700		40.1	7.23	1
06944	Antimony	7440-36-0	4.01	U	4.01	0.742	1
06935	Arsenic	7440-38-2	3.34	J	4.01	0.702	1
06946	Barium	7440-39-3	98.6		1.00	0.0331	1
06947	Beryllium	7440-41-7	0.725	J	1.00	0.0672	1
07914	Boron	7440-42-8	6.50	J	10.0	0.842	1
06949	Cadmium	7440-43-9	0.264	J	1.00	0.0762	1
01650	Calcium	7440-70-2	2,540		20.1	3.35	1
06951	Chromium	7440-47-3	19.3		3.01	0.160	1
06952	Cobalt	7440-48-4	4.96		1.00	0.0993	1
06953	Copper	7440-50-8	8.86		2.01	0.291	1
01654	Iron	7439-89-6	22,200		40.1	3.63	1
06955	Lead	7439-92-1	6.81		3.01	0.501	1
01656	Lithium	7439-93-2	22.0		4.0	0.34	1
01657	Magnesium	7439-95-4	4,120		10.0	1.67	1
06958	Manganese	7439-96-5	298		1.00	0.0832	1
06960	Molybdenum	7439-98-7	0.347	J	2.01	0.171	1
06961	Nickel	7440-02-0	10.9		2.01	0.130	1
10145	Phosphorus	7723-14-0	302		10.0	2.90	1
01662	Potassium	7440-09-7	3,120		100	8.36	1
01667	Sodium	7440-23-5	146		100	16.7	1
06969	Tin	7440-31-5	2.85	J	10.0	0.221	1
06970	Titanium	7440-32-6	1,190		1.00	0.171	1
06971	Vanadium	7440-62-2	37.2		1.00	0.130	1
06972	Zinc	7440-66-6	210		4.01	0.201	1
10146	Zirconium	7440-67-7	3.89	J	5.01	0.842	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.219	J	0.401	0.100	2
06142	Silver	7440-22-4	0.0415	J	0.201	0.0261	2
06144	Strontium	7440-24-6	19.6		0.401	0.0682	2
06145	Thallium	7440-28-0	0.260		0.201	0.0301	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0161	J	0.0169	0.0101	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475536
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 12:14 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

73005 SDG#: PH195-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 22.5 C.	n.a.	7.79	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	3.2	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475536
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 12:14 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

73005 SDG#: PH195-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0660 JBQ	1.00	0.0590	1
11031	12378-PeCDD	40321-76-4	0.229 JB	5.02	0.0449	1
11031	123478-HxCDD	39227-28-6	0.105 JBQ	5.02	0.0432	1
11031	123678-HxCDD	57653-85-7	0.431 JB	5.02	0.0445	1
11031	123789-HxCDD	19408-74-3	0.488 JBQ	5.02	0.0423	1
11031	1234678-HpCDD	35822-46-9	8.39 B	5.02	0.0563	1
11031	OCDD	3268-87-9	115 B	10.0	0.0536	1
11031	2378-TCDF	51207-31-9	0.0843 JBQ	1.00	0.0591	1
11031	12378-PeCDF	57117-41-6	0.350 JB	5.02	0.0284	1
11031	23478-PeCDF	57117-31-4	0.330 JB	5.02	0.0257	1
11031	123478-HxCDF	70648-26-9	0.147 JB	5.02	0.0350	1
11031	123678-HxCDF	57117-44-9	0.198 JB	5.02	0.0332	1
11031	123789-HxCDF	72918-21-9	0.311 JBQ	5.02	0.0356	1
11031	234678-HxCDF	60851-34-5	0.198 JB	5.02	0.0343	1
11031	1234678-HpCDF	67562-39-4	1.03 JB	5.02	0.0276	1
11031	1234789-HpCDF	55673-89-7	0.230 JB	5.02	0.0338	1
11031	OCDF	39001-02-0	2.24 JB	10.0	0.0572	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.567			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	93	25 - 164
13C12-12378-PeCDD	98	25 - 181
13C12-123478-HxCDD	90	32 - 141
13C12-123678-HxCDD	91	28 - 130
13C12-123789-HxCDD	91	28 - 130
13C12-1234678-HpCDD	83	23 - 140
13C12-OCDD	69	17 - 157
13C12-2378-TCDF	100	24 - 169
13C12-12378-PeCDF	96	24 - 185
13C12-23478-PeCDF	98	21 - 178
13C12-123478-HxCDF	83	26 - 152
13C12-123678-HxCDF	83	26 - 123
13C12-234678-HxCDF	85	28 - 136
13C12-123789-HxCDF	87	29 - 147
13C12-1234678-HpCDF	82	28 - 143
13C12-1234789-HpCDF	78	26 - 138
13C12-OCDF	64	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475536
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 12:14 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

73005 SDG#: PH195-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475536
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 12:14 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

73005 SDG#: PH195-04

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14155SLA026	06/06/2014 09:14	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	14155SLA026	06/05/2014 02:15	Sherry L Morrow	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440035A	05/28/2014 09:22	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440035A	05/27/2014 06:30	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141470033A	05/29/2014 21:07	Heather E Williams	2
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141470034A	05/31/2014 01:53	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141470034A	05/28/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141470033A	05/28/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14153005	06/05/2014 17:58	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14153005	06/02/2014 11:45	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141490637001	06/02/2014 09:35	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141490637001	06/02/2014 09:35	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141490637001	06/02/2014 09:35	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141490637001	06/02/2014 09:35	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141490637001	06/02/2014 09:35	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141490637001	06/02/2014 09:35	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141490637001	06/02/2014 09:35	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141490637001	06/02/2014 09:35	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141490637001	06/02/2014 09:35	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141490637001	06/02/2014 09:35	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141490637001	06/02/2014 09:35	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141490637001	06/02/2014 09:35	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141490637001	06/02/2014 09:35	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141490637001	06/02/2014 09:35	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141490637001	06/02/2014 09:35	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141490637001	06/02/2014 09:35	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141490637001	06/02/2014 09:35	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141490637001	06/02/2014 09:35	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141490637001	06/02/2014 09:35	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141490637001	06/02/2014 09:35	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141490637001	06/02/2014 09:35	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141490637001	06/02/2014 09:35	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141490637001	06/02/2014 22:26	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141490637001	06/02/2014 22:26	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141490637001	06/02/2014 09:35	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141490637001	06/02/2014 09:35	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475536
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 12:14 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

73005 SDG#: PH195-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	141490637001B	06/02/2014 14:30	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141490637001A	06/02/2014 14:30	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141490637001A	06/02/2014 14:30	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141490637001A	06/02/2014 14:30	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638002	06/04/2014 20:20	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141490637001	06/01/2014 22:20	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638002	06/02/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14144039401A	05/24/2014 10:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401C	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-5.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475537
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:03 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58755 SDG#: PH195-05BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.9	U	1.9	0.74	1
12969	Acenaphthylene	208-96-8	1.9	U	1.9	0.37	1
12969	Anthracene	120-12-7	1.9	U	1.9	0.37	1
12969	Benzo(a)anthracene	56-55-3	1.9	U	1.9	0.74	1
12969	Benzo(a)pyrene	50-32-8	1.9	U	1.9	0.74	1
12969	Benzo(b)fluoranthene	205-99-2	1.9	U	1.9	0.74	1
12969	Benzo(e)pyrene	192-97-2	19	U	19	3.7	1
12969	Benzo(g,h,i)perylene	191-24-2	1.9	U	1.9	0.74	1
12969	Benzo(k)fluoranthene	207-08-9	1.9	U	1.9	0.74	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.7	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.7	1
12969	Chrysene	218-01-9	1.9	U	1.9	0.37	1
12969	Dibenz(a,h)anthracene	53-70-3	1.9	U	1.9	0.74	1
12969	Diethylphthalate	84-66-2	20	U	20	6.7	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.7	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20	U	20	6.7	1
12969	Fluoranthene	206-44-0	1.9	U	1.9	0.74	1
12969	Fluorene	86-73-7	1.9	U	1.9	0.74	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.9	U	1.9	0.74	1
12969	1-Methylnaphthalene	90-12-0	1.9	U	1.9	0.74	1
12969	2-Methylnaphthalene	91-57-6	1.9	U	1.9	0.74	1
12969	Naphthalene	91-20-3	1.9	U	1.9	0.74	1
12969	N-Nitrosodimethylamine	62-75-9	1.9	U	1.9	0.74	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.7	1
12969	Phenanthrene	85-01-8	1.9	U	1.9	0.74	1
12969	Pyrene	129-00-0	1.9	U	1.9	0.74	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1	U	1	0.2	22.32
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	19	U	19	3.6	1
13099	PCB-1221	11104-28-2	19	U	19	5.6	1
13099	PCB-1232	11141-16-5	19	U	19	4.5	1
13099	PCB-1242	53469-21-9	19	U	19	4.5	1
13099	PCB-1248	12672-29-6	19	U	19	3.6	1
13099	PCB-1254	11097-69-1	19	U	19	4.8	1
13099	PCB-1260	11096-82-5	19	U	19	4.3	1
13099	PCB-1262	37324-23-5	19	U	19	3.6	1
13099	PCB-1268	11100-14-4	19	U	19	3.6	1

For all QC parameters which are outside project defined limits,

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-5.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475537
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:03 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58755 SDG#: PH195-05BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	but within the laboratory statistical limits, no corrective action is taken.						
GC Petroleum Hydrocarbons		**SW-846 8015B modified**	**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C21-C30)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.4	1
12952	EFH (C8-C11)	n.a.	5.5	U	5.5	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.4	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
	The reverse surrogate, capric acid, is present at <1%.						
Metals		**SW-846 6010C**	**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	19,600		43.2	7.79	1
06944	Antimony	7440-36-0	4.32	U	4.32	0.799	1
06935	Arsenic	7440-38-2	4.32		4.32	0.756	1
06946	Barium	7440-39-3	94.0		1.08	0.0356	1
06947	Beryllium	7440-41-7	0.836	J	1.08	0.0724	1
07914	Boron	7440-42-8	6.66	J	10.8	0.907	1
06949	Cadmium	7440-43-9	0.193	J	1.08	0.0821	1
01650	Calcium	7440-70-2	2,560		21.6	3.61	1
06951	Chromium	7440-47-3	20.0		3.24	0.173	1
06952	Cobalt	7440-48-4	4.69		1.08	0.107	1
06953	Copper	7440-50-8	7.98		2.16	0.313	1
01654	Iron	7439-89-6	22,900		43.2	3.91	1
06955	Lead	7439-92-1	5.45		3.24	0.540	1
01656	Lithium	7439-93-2	26.3		4.3	0.37	1
01657	Magnesium	7439-95-4	4,210		10.8	1.80	1
06958	Manganese	7439-96-5	261		1.08	0.0896	1
06960	Molybdenum	7439-98-7	0.599	J	2.16	0.184	1
06961	Nickel	7440-02-0	10.7		2.16	0.140	1
10145	Phosphorus	7723-14-0	226		10.8	3.12	1
01662	Potassium	7440-09-7	2,190		108	9.01	1
01667	Sodium	7440-23-5	147		108	18.0	1
06969	Tin	7440-31-5	3.03	J	10.8	0.238	1
06970	Titanium	7440-32-6	1,140		1.08	0.184	1
06971	Vanadium	7440-62-2	39.9		1.08	0.140	1
06972	Zinc	7440-66-6	45.8		4.32	0.216	1
10146	Zirconium	7440-67-7	4.42	J	5.40	0.907	1
		SW-846 6020A	**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.209	J	0.432	0.108	2
06142	Silver	7440-22-4	0.0419	J	0.216	0.0281	2
06144	Strontium	7440-24-6	21.4		0.432	0.0734	2
06145	Thallium	7440-28-0	0.242		0.216	0.0324	2
		SW-846 7471B	**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-5.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475537
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:03 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58755 SDG#: PH195-05BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 7471B**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0123 J	0.0182	0.0109	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 22.1 C.	n.a.	7.72	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	10.1	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-5.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475537
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:03 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58755 SDG#: PH195-05BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.08	U	1.08	0.0382	1
11031	12378-PeCDD	40321-76-4	0.0362	JB	5.40	0.0296	1
11031	123478-HxCDD	39227-28-6	0.0783	JBQ	5.40	0.0369	1
11031	123678-HxCDD	57653-85-7	0.420	JBQ	5.40	0.0388	1
11031	123789-HxCDD	19408-74-3	0.203	JBQ	5.40	0.0360	1
11031	1234678-HpCDD	35822-46-9	17.4	B	5.40	0.0659	1
11031	OCDD	3268-87-9	301	B	10.8	0.0490	1
11031	2378-TCDF	51207-31-9	1.08	U	1.08	0.0411	1
11031	12378-PeCDF	57117-41-6	0.179	JBQ	5.40	0.0189	1
11031	23478-PeCDF	57117-31-4	0.0773	JBQ	5.40	0.0200	1
11031	123478-HxCDF	70648-26-9	0.397	JBQ	5.40	0.0462	1
11031	123678-HxCDF	57117-44-9	0.255	JB	5.40	0.0374	1
11031	123789-HxCDF	72918-21-9	0.298	JB	5.40	0.0499	1
11031	234678-HxCDF	60851-34-5	0.331	JB	5.40	0.0427	1
11031	1234678-HpCDF	67562-39-4	3.75	JB	5.40	0.0184	1
11031	1234789-HpCDF	55673-89-7	0.592	JB	5.40	0.0376	1
11031	OCDF	39001-02-0	8.04	JB	10.8	0.0492	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.435				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	87	25 - 164
13C12-12378-PeCDD	91	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	67	17 - 157
13C12-2378-TCDF	90	24 - 169
13C12-12378-PeCDF	102	24 - 185
13C12-23478-PeCDF	90	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	88	26 - 123
13C12-234678-HxCDF	79	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	103	28 - 143
13C12-1234789-HpCDF	55	26 - 138
13C12-OCDF	44	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-5.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475537
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:03 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58755 SDG#: PH195-05BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-5.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475537
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:03 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58755 SDG#: PH195-05BKG

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14155SLA026	06/06/2014 01:45	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	14155SLA026	06/05/2014 02:15	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147C16A	05/29/2014 21:57	Marie D Beamenderfer	22.32
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414334607	05/23/2014 19:52	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414334607	05/23/2014 19:53	Lisa J Cooke	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440035A	05/28/2014 09:41	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440035A	05/27/2014 06:30	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141470033A	05/28/2014 18:44	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141470034A	05/30/2014 19:04	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141470034A	05/28/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141470033A	05/28/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14153005	06/05/2014 08:18	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14153005	06/02/2014 11:45	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141490637001	06/02/2014 08:57	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141490637001	06/02/2014 08:57	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141490637001	06/02/2014 08:57	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141490637001	06/02/2014 08:57	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141490637001	06/02/2014 08:57	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141490637001	06/02/2014 08:57	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141490637001	06/02/2014 08:57	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141490637001	06/02/2014 08:57	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141490637001	06/02/2014 08:57	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141490637001	06/02/2014 08:57	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141490637001	06/02/2014 08:57	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141490637001	06/02/2014 08:57	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141490637001	06/02/2014 08:57	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141490637001	06/02/2014 08:57	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141490637001	06/02/2014 08:57	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141490637001	06/02/2014 08:57	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141490637001	06/02/2014 08:57	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141490637001	06/02/2014 08:57	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141490637001	06/02/2014 08:57	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141490637001	06/02/2014 08:57	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141490637001	06/02/2014 08:57	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141490637001	06/02/2014 08:57	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-5.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475537
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:03 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58755 SDG#: PH195-05BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010C	1	141490637001	06/02/2014 21:46	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141490637001	06/02/2014 21:46	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141490637001	06/02/2014 08:57	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141490637001	06/02/2014 08:57	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141490637001B	06/02/2014 14:07	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141490637001A	06/02/2014 14:07	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141490637001A	06/02/2014 14:07	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141490637001A	06/02/2014 14:07	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638002	06/04/2014 20:22	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141490637001	06/01/2014 22:20	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638002	06/02/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14144039401A	05/24/2014 10:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401C	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-5.5MS Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475538
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:03 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58755 SDG#: PH195-05MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	41		1.9	0.74	1
12969	Acenaphthylene	208-96-8	37		1.9	0.37	1
12969	Anthracene	120-12-7	39		1.9	0.37	1
12969	Benzo(a)anthracene	56-55-3	35		1.9	0.74	1
12969	Benzo(a)pyrene	50-32-8	31		1.9	0.74	1
12969	Benzo(b)fluoranthene	205-99-2	35		1.9	0.74	1
12969	Benzo(e)pyrene	192-97-2	28		19	3.7	1
12969	Benzo(g,h,i)perylene	191-24-2	36		1.9	0.74	1
12969	Benzo(k)fluoranthene	207-08-9	30		1.9	0.74	1
12969	Butylbenzylphthalate	85-68-7	36		20	6.7	1
12969	Di-n-butylphthalate	84-74-2	36		20	6.7	1
12969	Chrysene	218-01-9	33		1.9	0.37	1
12969	Dibenz(a,h)anthracene	53-70-3	37		1.9	0.74	1
12969	Diethylphthalate	84-66-2	34		20	6.7	1
12969	Dimethylphthalate	131-11-3	30		20	6.7	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	37		20	6.7	1
12969	Fluoranthene	206-44-0	35		1.9	0.74	1
12969	Fluorene	86-73-7	36		1.9	0.74	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	36		1.9	0.74	1
12969	1-Methylnaphthalene	90-12-0	35		1.9	0.74	1
12969	2-Methylnaphthalene	91-57-6	37		1.9	0.74	1
12969	Naphthalene	91-20-3	36		1.9	0.74	1
12969	N-Nitrosodimethylamine	62-75-9	32		1.9	0.74	1
12969	Di-n-octylphthalate	117-84-0	37		20	6.7	1
12969	Phenanthrene	85-01-8	37		1.9	0.74	1
12969	Pyrene	129-00-0	31		1.9	0.74	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	8.3		1.0	0.2	22.89
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	170		19	3.6	1
13099	PCB-1221	11104-28-2	19	U	19	5.6	1
13099	PCB-1232	11141-16-5	19	U	19	4.5	1
13099	PCB-1242	53469-21-9	19	U	19	4.5	1
13099	PCB-1248	12672-29-6	19	U	19	3.6	1
13099	PCB-1254	11097-69-1	19	U	19	4.8	1
13099	PCB-1260	11096-82-5	180		19	4.3	1
13099	PCB-1262	37324-23-5	19	U	19	3.6	1
13099	PCB-1268	11100-14-4	19	U	19	3.6	1

For all QC parameters which are outside project defined limits,

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-5.5MS Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475538
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:03 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58755 SDG#: PH195-05MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	but within the laboratory statistical limits, no corrective action is taken.						
GC Petroleum Hydrocarbons		**SW-846 8015B modified**	**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	4.6	J	5.6	2.2	1
12952	EFH (C15-C20)	n.a.	7.1		5.6	2.2	1
12952	EFH (C21-C30)	n.a.	12		5.6	2.2	1
12952	EFH (C30-C40)	n.a.	12		11	4.4	1
12952	EFH (C8-C11)	n.a.	4.1	J	5.6	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	4.0	J	5.6	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	6.2		5.6	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	10		5.6	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	11		11	4.4	1
13197	EFH C8-C11 w/ SiGel	n.a.	3.1	J	5.6	2.2	1
	The reverse surrogate, capric acid, is present at <1%.						
Metals		**SW-846 6010C**	**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	24,900		43.2	7.79	1
06944	Antimony	7440-36-0	41.8		4.32	0.799	1
06935	Arsenic	7440-38-2	20.7		4.32	0.756	1
06946	Barium	7440-39-3	316		1.08	0.0356	1
06947	Beryllium	7440-41-7	6.37		1.08	0.0724	1
07914	Boron	7440-42-8	218		10.8	0.907	1
06949	Cadmium	7440-43-9	5.38		1.08	0.0821	1
01650	Calcium	7440-70-2	3,260		21.6	3.61	1
06951	Chromium	7440-47-3	44.2		3.24	0.173	1
06952	Cobalt	7440-48-4	56.7		1.08	0.107	1
06953	Copper	7440-50-8	36.8		2.16	0.313	1
01654	Iron	7439-89-6	23,600		43.2	3.91	1
06955	Lead	7439-92-1	21.1		3.24	0.540	1
01656	Lithium	7439-93-2	141		4.3	0.37	1
01657	Magnesium	7439-95-4	4,850		10.8	1.80	1
06958	Manganese	7439-96-5	330		1.08	0.0896	1
06960	Molybdenum	7439-98-7	207		2.16	0.184	1
06961	Nickel	7440-02-0	65.1		2.16	0.140	1
10145	Phosphorus	7723-14-0	339		10.8	3.12	1
01662	Potassium	7440-09-7	3,700		108	9.01	1
01667	Sodium	7440-23-5	1,280		108	18.0	1
06969	Tin	7440-31-5	402		10.8	0.238	1
06970	Titanium	7440-32-6	1,460		1.08	0.184	1
06971	Vanadium	7440-62-2	98.8		1.08	0.140	1
06972	Zinc	7440-66-6	99.6		4.32	0.216	1
10146	Zirconium	7440-67-7	109		5.40	0.907	1
		SW-846 6020A	**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.42		0.432	0.108	2
06142	Silver	7440-22-4	11.2		0.216	0.0281	2
06144	Strontium	7440-24-6	32.4		0.432	0.0734	2
06145	Thallium	7440-28-0	0.675		0.216	0.0324	2
		SW-846 7471B	**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-5.5MS Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475538
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:03 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58755 SDG#: PH195-05MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 7471B**		mg/kg	mg/kg	mg/kg	
00159	3a Mercury 7471A	7439-97-6	0.175	0.0179	0.0107	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	14a Moisture Content by 160.3	n.a.	10.1	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-5.5MS Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475538
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:03 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
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Fairfax VA 22030

58755 SDG#: PH195-05MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	22.5	B	1.10	0.0632	1
11031	12378-PeCDD	40321-76-4	111	B	5.50	0.0544	1
11031	123478-HxCDD	39227-28-6	106	B	5.50	0.0448	1
11031	123678-HxCDD	57653-85-7	105	B	5.50	0.0467	1
11031	123789-HxCDD	19408-74-3	106	B	5.50	0.0442	1
11031	1234678-HpCDD	35822-46-9	105	B	5.50	0.0615	1
11031	OCDD	3268-87-9	265	B	11.0	0.0455	1
11031	2378-TCDF	51207-31-9	23.4	B	1.10	0.0634	1
11031	12378-PeCDF	57117-41-6	106	B	5.50	0.0363	1
11031	23478-PeCDF	57117-31-4	107	B	5.50	0.0365	1
11031	123478-HxCDF	70648-26-9	102	B	5.50	0.0930	1
11031	123678-HxCDF	57117-44-9	103	B	5.50	0.0766	1
11031	123789-HxCDF	72918-21-9	100	B	5.50	0.0977	1
11031	234678-HxCDF	60851-34-5	104	B	5.50	0.0846	1
11031	1234678-HpCDF	67562-39-4	99.5	B	5.50	0.0498	1
11031	1234789-HpCDF	55673-89-7	101	B	5.50	0.0870	1
11031	OCDF	39001-02-0	200	B	11.0	0.0474	1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	77	25 - 164
13C12-12378-PeCDD	87	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	82	23 - 140
13C12-OCDD	76	17 - 157
13C12-2378-TCDF	80	24 - 169
13C12-12378-PeCDF	95	24 - 185
13C12-23478-PeCDF	89	21 - 178
13C12-123478-HxCDF	74	26 - 152
13C12-123678-HxCDF	84	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	75	29 - 147
13C12-1234678-HpCDF	99	28 - 143
13C12-1234789-HpCDF	65	26 - 138
13C12-OCDF	57	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-5.5MS Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475538
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:03 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58755 SDG#: PH195-05MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
S	*Saturation of detection signal*					

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-5.5MS Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475538
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:03 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58755 SDG#: PH195-05MS

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14155SLA026	06/06/2014 02:17	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	14155SLA026	06/05/2014 02:15	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147C16A	05/29/2014 22:35	Marie D Beamenderfer	22.89
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414334607	05/23/2014 19:53	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414334607	05/23/2014 19:53	Lisa J Cooke	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440035A	05/28/2014 09:59	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440035A	05/27/2014 06:30	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141470033A	05/28/2014 19:05	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141470034A	05/30/2014 19:25	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141470034A	05/28/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141470033A	05/28/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14153005	06/05/2014 09:15	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14153005	06/02/2014 11:45	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141490637001	06/02/2014 09:09	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141490637001	06/02/2014 09:09	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141490637001	06/02/2014 09:09	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141490637001	06/02/2014 09:09	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141490637001	06/02/2014 09:09	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141490637001	06/02/2014 09:09	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141490637001	06/02/2014 09:09	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141490637001	06/02/2014 09:09	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141490637001	06/02/2014 09:09	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141490637001	06/02/2014 09:09	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141490637001	06/02/2014 09:09	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141490637001	06/02/2014 09:09	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141490637001	06/02/2014 09:09	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141490637001	06/02/2014 09:09	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141490637001	06/02/2014 09:09	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141490637001	06/02/2014 09:09	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141490637001	06/02/2014 09:09	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141490637001	06/02/2014 09:09	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141490637001	06/02/2014 09:09	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141490637001	06/02/2014 09:09	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141490637001	06/02/2014 09:09	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141490637001	06/02/2014 09:09	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-5.5MS Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475538
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:03 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58755 SDG#: PH195-05MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010C	1	141490637001	06/02/2014 21:58	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141490637001	06/02/2014 21:58	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141490637001	06/02/2014 09:09	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141490637001	06/02/2014 21:58	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141490637001B	06/02/2014 14:14	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141490637001A	06/02/2014 14:14	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141490637001A	06/02/2014 14:14	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141490637001A	06/02/2014 14:14	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638002	06/04/2014 20:29	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141490637001	06/01/2014 22:20	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638002	06/02/2014 01:30	Annamaria Kuhns	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401C	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-5.5MSD Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475539
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:03 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58755 SDG#: PH195-05MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	40		1.9	0.74	1
12969	Acenaphthylene	208-96-8	37		1.9	0.37	1
12969	Anthracene	120-12-7	38		1.9	0.37	1
12969	Benzo(a)anthracene	56-55-3	35		1.9	0.74	1
12969	Benzo(a)pyrene	50-32-8	31		1.9	0.74	1
12969	Benzo(b)fluoranthene	205-99-2	34		1.9	0.74	1
12969	Benzo(e)pyrene	192-97-2	28		19	3.7	1
12969	Benzo(g,h,i)perylene	191-24-2	35		1.9	0.74	1
12969	Benzo(k)fluoranthene	207-08-9	30		1.9	0.74	1
12969	Butylbenzylphthalate	85-68-7	36		20	6.7	1
12969	Di-n-butylphthalate	84-74-2	37		20	6.7	1
12969	Chrysene	218-01-9	33		1.9	0.37	1
12969	Dibenz(a,h)anthracene	53-70-3	38		1.9	0.74	1
12969	Diethylphthalate	84-66-2	34		20	6.7	1
12969	Dimethylphthalate	131-11-3	30		20	6.7	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	37		20	6.7	1
12969	Fluoranthene	206-44-0	36		1.9	0.74	1
12969	Fluorene	86-73-7	36		1.9	0.74	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	35		1.9	0.74	1
12969	1-Methylnaphthalene	90-12-0	34		1.9	0.74	1
12969	2-Methylnaphthalene	91-57-6	37		1.9	0.74	1
12969	Naphthalene	91-20-3	35		1.9	0.74	1
12969	N-Nitrosodimethylamine	62-75-9	32		1.9	0.74	1
12969	Di-n-octylphthalate	117-84-0	37		20	6.7	1
12969	Phenanthrene	85-01-8	36		1.9	0.74	1
12969	Pyrene	129-00-0	31		1.9	0.74	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	10		1.1	0.2	24.18
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	170		19	3.6	1
13099	PCB-1221	11104-28-2	19	U	19	5.6	1
13099	PCB-1232	11141-16-5	19	U	19	4.5	1
13099	PCB-1242	53469-21-9	19	U	19	4.5	1
13099	PCB-1248	12672-29-6	19	U	19	3.6	1
13099	PCB-1254	11097-69-1	19	U	19	4.8	1
13099	PCB-1260	11096-82-5	180		19	4.3	1
13099	PCB-1262	37324-23-5	19	U	19	3.6	1
13099	PCB-1268	11100-14-4	19	U	19	3.6	1

For all QC parameters which are outside project defined limits,

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-5.5MSD Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475539
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:03 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58755 SDG#: PH195-05MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	but within the laboratory statistical limits, no corrective action is taken.						
GC Petroleum Hydrocarbons		**SW-846 8015B modified**	**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.0	J	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	7.8		5.5	2.2	1
12952	EFH (C21-C30)	n.a.	13		5.5	2.2	1
12952	EFH (C30-C40)	n.a.	12		11	4.4	1
12952	EFH (C8-C11)	n.a.	4.6	J	5.5	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	4.5	J	5.5	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	6.9		5.5	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	12		5.5	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	12		11	4.4	1
13197	EFH C8-C11 w/ SiGel	n.a.	3.6	J	5.5	2.2	1
	The reverse surrogate, capric acid, is present at <1%.						
Metals		**SW-846 6010C**	**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	25,500		43.2	7.79	1
06944	Antimony	7440-36-0	43.2		4.32	0.799	1
06935	Arsenic	7440-38-2	20.9		4.32	0.756	1
06946	Barium	7440-39-3	316		1.08	0.0356	1
06947	Beryllium	7440-41-7	6.31		1.08	0.0724	1
07914	Boron	7440-42-8	218		10.8	0.907	1
06949	Cadmium	7440-43-9	5.48		1.08	0.0821	1
01650	Calcium	7440-70-2	3,390		21.6	3.61	1
06951	Chromium	7440-47-3	46.7		3.24	0.173	1
06952	Cobalt	7440-48-4	56.0		1.08	0.107	1
06953	Copper	7440-50-8	45.0		2.16	0.313	1
01654	Iron	7439-89-6	24,200		43.2	3.91	1
06955	Lead	7439-92-1	23.1		3.24	0.540	1
01656	Lithium	7439-93-2	139		4.3	0.37	1
01657	Magnesium	7439-95-4	5,020		10.8	1.80	1
06958	Manganese	7439-96-5	333		1.08	0.0896	1
06960	Molybdenum	7439-98-7	206		2.16	0.184	1
06961	Nickel	7440-02-0	64.5		2.16	0.140	1
10145	Phosphorus	7723-14-0	398		10.8	3.12	1
01662	Potassium	7440-09-7	3,570		108	9.01	1
01667	Sodium	7440-23-5	1,240		108	18.0	1
06969	Tin	7440-31-5	397		10.8	0.238	1
06970	Titanium	7440-32-6	1,570		1.08	0.184	1
06971	Vanadium	7440-62-2	102		1.08	0.140	1
06972	Zinc	7440-66-6	123		4.32	0.216	1
10146	Zirconium	7440-67-7	109		5.40	0.907	1
		SW-846 6020A	**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.41		0.432	0.108	2
06142	Silver	7440-22-4	11.1		0.216	0.0281	2
06144	Strontium	7440-24-6	31.5		0.432	0.0734	2
06145	Thallium	7440-28-0	0.690		0.216	0.0324	2
		SW-846 7471B	**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-5.5MSD Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475539
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:03 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58755 SDG#: PH195-05MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 7471B**		mg/kg	mg/kg	mg/kg	
00159	3a Mercury 7471A	7439-97-6	0.179	0.0181	0.0109	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	14a Moisture Content by 160.3	n.a.	10.1	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-5.5MSD Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475539
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:03 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58755 SDG#: PH195-05MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	22.4	B	1.09	0.0601	1
11031	12378-PeCDD	40321-76-4	110	B	5.44	0.0499	1
11031	123478-HxCDD	39227-28-6	103	B	5.44	0.0425	1
11031	123678-HxCDD	57653-85-7	106	B	5.44	0.0468	1
11031	123789-HxCDD	19408-74-3	105	B	5.44	0.0432	1
11031	1234678-HpCDD	35822-46-9	109	B	5.44	0.0607	1
11031	OCDD	3268-87-9	291	B	10.9	0.0371	1
11031	2378-TCDF	51207-31-9	22.8	B	1.09	0.0569	1
11031	12378-PeCDF	57117-41-6	104	B	5.44	0.0350	1
11031	23478-PeCDF	57117-31-4	107	B	5.44	0.0380	1
11031	123478-HxCDF	70648-26-9	102	B	5.44	0.0631	1
11031	123678-HxCDF	57117-44-9	101	B	5.44	0.0549	1
11031	123789-HxCDF	72918-21-9	101	B	5.44	0.0727	1
11031	234678-HxCDF	60851-34-5	103	B	5.44	0.0597	1
11031	1234678-HpCDF	67562-39-4	98.7	B	5.44	0.0359	1
11031	1234789-HpCDF	55673-89-7	101	B	5.44	0.0687	1
11031	OCDF	39001-02-0	202	B	10.9	0.0407	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	82	25 - 164
13C12-12378-PeCDD	89	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	81	23 - 140
13C12-OCDD	76	17 - 157
13C12-2378-TCDF	84	24 - 169
13C12-12378-PeCDF	101	24 - 185
13C12-23478-PeCDF	89	21 - 178
13C12-123478-HxCDF	74	26 - 152
13C12-123678-HxCDF	86	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	75	29 - 147
13C12-1234678-HpCDF	103	28 - 143
13C12-1234789-HpCDF	61	26 - 138
13C12-OCDF	53	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-5.5MSD Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475539
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:03 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58755 SDG#: PH195-05MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
S	*Saturation of detection signal*					

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-5.5MSD Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475539
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:03 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58755 SDG#: PH195-05MSD

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14155SLA026	06/06/2014 02:49	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	14155SLA026	06/05/2014 02:15	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147C16A	05/29/2014 23:13	Marie D Beamenderfer	24.18
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414334607	05/23/2014 19:53	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414334607	05/23/2014 19:54	Lisa J Cooke	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440035A	05/28/2014 10:18	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440035A	05/27/2014 06:30	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141470033A	05/28/2014 19:27	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141470034A	05/30/2014 19:47	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141470034A	05/28/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141470033A	05/28/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14153005	06/05/2014 10:11	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14153005	06/02/2014 11:45	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141490637001	06/02/2014 09:13	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141490637001	06/02/2014 09:13	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141490637001	06/02/2014 09:13	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141490637001	06/02/2014 09:13	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141490637001	06/02/2014 09:13	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141490637001	06/02/2014 09:13	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141490637001	06/02/2014 09:13	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141490637001	06/02/2014 09:13	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141490637001	06/02/2014 09:13	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141490637001	06/02/2014 09:13	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141490637001	06/02/2014 09:13	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141490637001	06/02/2014 09:13	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141490637001	06/02/2014 09:13	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141490637001	06/02/2014 09:13	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141490637001	06/02/2014 09:13	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141490637001	06/02/2014 09:13	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141490637001	06/02/2014 09:13	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141490637001	06/02/2014 09:13	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141490637001	06/02/2014 09:13	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141490637001	06/02/2014 09:13	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141490637001	06/02/2014 09:13	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141490637001	06/02/2014 09:13	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-5.5MSD Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475539
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:03 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58755 SDG#: PH195-05MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010C	1	141490637001	06/02/2014 22:02	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141490637001	06/02/2014 22:02	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141490637001	06/02/2014 09:13	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141490637001	06/02/2014 22:02	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141490637001B	06/02/2014 14:16	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141490637001A	06/02/2014 14:16	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141490637001A	06/02/2014 14:16	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141490637001A	06/02/2014 14:16	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638002	06/04/2014 20:31	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141490637001	06/01/2014 22:20	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638002	06/02/2014 01:30	Annamaria Kuhns	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401C	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-5.5DUP Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475540
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:03 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58755 SDG#: PH195-05DUP

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	19,800		43.2	7.79	1
06944	Antimony	7440-36-0	4.32	U	4.32	0.799	1
06935	Arsenic	7440-38-2	4.60		4.32	0.756	1
06946	Barium	7440-39-3	96.2		1.08	0.0356	1
06947	Beryllium	7440-41-7	0.863	J	1.08	0.0724	1
07914	Boron	7440-42-8	6.99	J	10.8	0.907	1
06949	Cadmium	7440-43-9	0.140	J	1.08	0.0821	1
01650	Calcium	7440-70-2	2,640		21.6	3.61	1
06951	Chromium	7440-47-3	20.2		3.24	0.173	1
06952	Cobalt	7440-48-4	9.63		1.08	0.107	1
06953	Copper	7440-50-8	8.32		2.16	0.313	1
01654	Iron	7439-89-6	22,300		43.2	3.91	1
06955	Lead	7439-92-1	5.86		3.24	0.540	1
01656	Lithium	7439-93-2	26.3		4.3	0.37	1
01657	Magnesium	7439-95-4	4,350		10.8	1.80	1
06958	Manganese	7439-96-5	303		1.08	0.0896	1
06960	Molybdenum	7439-98-7	0.428	J	2.16	0.184	1
06961	Nickel	7440-02-0	11.0		2.16	0.140	1
10145	Phosphorus	7723-14-0	236		10.8	3.12	1
01662	Potassium	7440-09-7	2,260		108	9.01	1
01667	Sodium	7440-23-5	154		108	18.0	1
06969	Tin	7440-31-5	3.17	J	10.8	0.238	1
06970	Titanium	7440-32-6	1,140		1.08	0.184	1
06971	Vanadium	7440-62-2	40.1		1.08	0.140	1
06972	Zinc	7440-66-6	46.5		4.32	0.216	1
10146	Zirconium	7440-67-7	5.34	J	5.40	0.907	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.205	J	0.432	0.108	2
06142	Silver	7440-22-4	0.0410	J	0.216	0.0281	2
06144	Strontium	7440-24-6	21.5		0.432	0.0734	2
06145	Thallium	7440-28-0	0.237		0.216	0.0324	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0117	J	0.0182	0.0109	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.74		0.0100	0.0100	1
	The pH was measured in water at 22.2 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	10.1		0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	9.8		0.10	0.10	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-587-SA5A-TR-5.5DUP Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475540
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:03 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58755 SDG#: PH195-05DUP

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010C	1	141490637001	06/02/2014 09:05	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141490637001	06/02/2014 09:05	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141490637001	06/02/2014 09:05	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141490637001	06/02/2014 09:05	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141490637001	06/02/2014 09:05	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141490637001	06/02/2014 09:05	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141490637001	06/02/2014 09:05	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141490637001	06/02/2014 09:05	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141490637001	06/02/2014 09:05	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141490637001	06/02/2014 09:05	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141490637001	06/02/2014 09:05	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141490637001	06/02/2014 09:05	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141490637001	06/02/2014 09:05	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141490637001	06/02/2014 09:05	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141490637001	06/02/2014 09:05	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141490637001	06/02/2014 09:05	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141490637001	06/02/2014 09:05	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141490637001	06/02/2014 09:05	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141490637001	06/02/2014 09:05	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141490637001	06/02/2014 09:05	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141490637001	06/02/2014 09:05	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141490637001	06/02/2014 09:05	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141490637001	06/02/2014 21:54	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141490637001	06/02/2014 21:54	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141490637001	06/02/2014 09:05	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141490637001	06/02/2014 09:05	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141490637001B	06/02/2014 14:12	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141490637001A	06/02/2014 14:12	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141490637001A	06/02/2014 14:12	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141490637001A	06/02/2014 14:12	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638002	06/04/2014 20:26	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141490637001	06/01/2014 22:20	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638002	06/02/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14144039401A	05/24/2014 10:00	Luz M Groff	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401C	05/28/2014 20:40	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401C	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-887-SA5A-TR-5.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475541
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:08 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

88755 SDG#: PH195-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.9	U	1.9	0.75	1
12969	Acenaphthylene	208-96-8	1.9	U	1.9	0.37	1
12969	Anthracene	120-12-7	1.9	U	1.9	0.37	1
12969	Benzo(a)anthracene	56-55-3	1.9	U	1.9	0.75	1
12969	Benzo(a)pyrene	50-32-8	1.9	U	1.9	0.75	1
12969	Benzo(b)fluoranthene	205-99-2	1.9	U	1.9	0.75	1
12969	Benzo(e)pyrene	192-97-2	19	U	19	3.7	1
12969	Benzo(g,h,i)perylene	191-24-2	1.9	U	1.9	0.75	1
12969	Benzo(k)fluoranthene	207-08-9	1.9	U	1.9	0.75	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.7	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.7	1
12969	Chrysene	218-01-9	1.9	U	1.9	0.37	1
12969	Dibenz(a,h)anthracene	53-70-3	1.9	U	1.9	0.75	1
12969	Diethylphthalate	84-66-2	20	U	20	6.7	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.7	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20	U	20	6.7	1
12969	Fluoranthene	206-44-0	1.9	U	1.9	0.75	1
12969	Fluorene	86-73-7	1.9	U	1.9	0.75	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.9	U	1.9	0.75	1
12969	1-Methylnaphthalene	90-12-0	1.9	U	1.9	0.75	1
12969	2-Methylnaphthalene	91-57-6	1.9	U	1.9	0.75	1
12969	Naphthalene	91-20-3	1.9	U	1.9	0.75	1
12969	N-Nitrosodimethylamine	62-75-9	1.9	U	1.9	0.75	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.7	1
12969	Phenanthrene	85-01-8	1.9	U	1.9	0.75	1
12969	Pyrene	129-00-0	1.9	U	1.9	0.75	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: benzo(e)pyrene

GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	23.9
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	19	U	19	3.6	1
13099	PCB-1221	11104-28-2	19	U	19	5.6	1
13099	PCB-1232	11141-16-5	19	U	19	4.5	1
13099	PCB-1242	53469-21-9	19	U	19	4.5	1
13099	PCB-1248	12672-29-6	19	U	19	3.6	1
13099	PCB-1254	11097-69-1	19	U	19	4.9	1
13099	PCB-1260	11096-82-5	19	U	19	4.3	1
13099	PCB-1262	37324-23-5	19	U	19	3.6	1
13099	PCB-1268	11100-14-4	19	U	19	3.6	1

For all QC parameters which are outside project defined limits,

*=This limit was used in the evaluation of the final result

Sample Description: SL-887-SA5A-TR-5.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475541
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:08 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

88755 SDG#: PH195-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	but within the laboratory statistical limits, no corrective action is taken.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C21-C30)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.4	1
12952	EFH (C8-C11)	n.a.	5.5	U	5.5	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.4	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
	The reverse surrogate, capric acid, is present at <1%.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	22,000		43.6	7.87	1
06944	Antimony	7440-36-0	4.36	U	4.36	0.807	1
06935	Arsenic	7440-38-2	5.26		4.36	0.764	1
06946	Barium	7440-39-3	98.0		1.09	0.0360	1
06947	Beryllium	7440-41-7	0.948	J	1.09	0.0731	1
07914	Boron	7440-42-8	6.87	J	10.9	0.916	1
06949	Cadmium	7440-43-9	0.262	J	1.09	0.0829	1
01650	Calcium	7440-70-2	2,810		21.8	3.64	1
06951	Chromium	7440-47-3	23.0		3.27	0.175	1
06952	Cobalt	7440-48-4	4.60		1.09	0.108	1
06953	Copper	7440-50-8	9.48		2.18	0.316	1
01654	Iron	7439-89-6	23,500		43.6	3.95	1
06955	Lead	7439-92-1	6.55		3.27	0.545	1
01656	Lithium	7439-93-2	28.1		4.4	0.37	1
01657	Magnesium	7439-95-4	4,300		10.9	1.82	1
06958	Manganese	7439-96-5	228		1.09	0.0905	1
06960	Molybdenum	7439-98-7	0.472	J	2.18	0.185	1
06961	Nickel	7440-02-0	11.7		2.18	0.142	1
10145	Phosphorus	7723-14-0	258		10.9	3.15	1
01662	Potassium	7440-09-7	2,240		109	9.10	1
01667	Sodium	7440-23-5	159		109	18.2	1
06969	Tin	7440-31-5	3.08	J	10.9	0.240	1
06970	Titanium	7440-32-6	1,180		1.09	0.185	1
06971	Vanadium	7440-62-2	44.1		1.09	0.142	1
06972	Zinc	7440-66-6	46.4		4.36	0.218	1
10146	Zirconium	7440-67-7	4.28	J	5.45	0.916	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.238	J	0.436	0.109	2
06142	Silver	7440-22-4	0.0434	J	0.218	0.0284	2
06144	Strontium	7440-24-6	21.9		0.436	0.0742	2
06145	Thallium	7440-28-0	0.240		0.218	0.0327	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

Sample Description: SL-887-SA5A-TR-5.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475541
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:08 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

88755 SDG#: PH195-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 7471B**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0230	0.0180	0.0108	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 21.9 C.	n.a.	7.55	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	11.0	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-887-SA5A-TR-5.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475541
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:08 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

88755 SDG#: PH195-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.11	U	1.11	0.0681	1
11031	12378-PeCDD	40321-76-4	0.0544	JBQ	5.53	0.0476	1
11031	123478-HxCDD	39227-28-6	0.0729	JBQ	5.53	0.0493	1
11031	123678-HxCDD	57653-85-7	0.341	JBQ	5.53	0.0522	1
11031	123789-HxCDD	19408-74-3	0.245	JBQ	5.53	0.0493	1
11031	1234678-HpCDD	35822-46-9	10.3	B	5.53	0.0704	1
11031	OCDD	3268-87-9	175	B	11.1	0.0807	1
11031	2378-TCDF	51207-31-9	1.11	U	1.11	0.0586	1
11031	12378-PeCDF	57117-41-6	0.198	JB	5.53	0.0272	1
11031	23478-PeCDF	57117-31-4	0.104	JB	5.53	0.0287	1
11031	123478-HxCDF	70648-26-9	0.197	JBQ	5.53	0.0466	1
11031	123678-HxCDF	57117-44-9	0.249	JBQ	5.53	0.0405	1
11031	123789-HxCDF	72918-21-9	0.286	JB	5.53	0.0555	1
11031	234678-HxCDF	60851-34-5	0.251	JB	5.53	0.0433	1
11031	1234678-HpCDF	67562-39-4	2.45	JB	5.53	0.0235	1
11031	1234789-HpCDF	55673-89-7	0.400	JB	5.53	0.0479	1
11031	OCDF	39001-02-0	5.35	JB	11.1	0.107	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.276				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	83	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	65	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	86	24 - 185
13C12-23478-PeCDF	80	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	81	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	64	29 - 147
13C12-1234678-HpCDF	97	28 - 143
13C12-1234789-HpCDF	53	26 - 138
13C12-OCDF	41	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-887-SA5A-TR-5.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475541
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:08 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

88755 SDG#: PH195-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-887-SA5A-TR-5.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475541
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:08 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

88755 SDG#: PH195-06

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14155SLA026	06/06/2014 03:53	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	14155SLA026	06/05/2014 02:15	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147C16A	05/29/2014 20:42	Marie D Beamenderfer	23.9
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414334607	05/23/2014 19:49	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414334607	05/23/2014 19:49	Lisa J Cooke	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440035A	05/28/2014 10:36	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440035A	05/27/2014 06:30	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141470033A	05/28/2014 22:42	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141470034A	05/30/2014 20:08	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141470034A	05/28/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141470033A	05/28/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14153005	06/05/2014 18:55	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14153005	06/02/2014 11:45	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141490637001	06/02/2014 09:39	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141490637001	06/02/2014 09:39	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141490637001	06/02/2014 09:39	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141490637001	06/02/2014 09:39	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141490637001	06/02/2014 09:39	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141490637001	06/02/2014 09:39	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141490637001	06/02/2014 09:39	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141490637001	06/02/2014 09:39	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141490637001	06/02/2014 09:39	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141490637001	06/02/2014 09:39	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141490637001	06/02/2014 09:39	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141490637001	06/02/2014 09:39	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141490637001	06/02/2014 09:39	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141490637001	06/02/2014 09:39	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141490637001	06/02/2014 09:39	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141490637001	06/02/2014 09:39	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141490637001	06/02/2014 09:39	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141490637001	06/02/2014 09:39	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141490637001	06/02/2014 09:39	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141490637001	06/02/2014 09:39	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141490637001	06/02/2014 09:39	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141490637001	06/02/2014 09:39	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-887-SA5A-TR-5.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7475541
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:08 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

88755 SDG#: PH195-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010C	1	141490637001	06/02/2014 22:30	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141490637001	06/02/2014 22:30	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141490637001	06/02/2014 09:39	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141490637001	06/02/2014 09:39	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141490637001B	06/02/2014 14:33	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141490637001A	06/02/2014 14:33	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141490637001A	06/02/2014 14:33	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141490637001A	06/02/2014 14:33	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638002	06/04/2014 20:33	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141490637001	06/01/2014 22:20	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638002	06/02/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14144039401A	05/24/2014 10:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401C	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: EB3-052214 Water
SSFL Phase 3 Subarea 5A

LL Sample # WW 7475542
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 15:45 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB322 SDG#: PH195-07EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	5	U	5	0.5	1
10335	Benzene	71-43-2	5	U	5	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	5	U	5	0.5	1
10335	Bromoform	75-25-2	5	U	5	0.5	1
10335	Bromomethane	74-83-9	5	U	5	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	5	U	5	0.5	1
10335	Chlorobenzene	108-90-7	5	U	5	0.5	1
10335	Chloroethane	75-00-3	5	U	5	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	5	U	5	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	5	U	5	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	5	U	5	0.5	1
10335	1,2-Dibromoethane	106-93-4	5	U	5	0.5	1
10335	Dibromomethane	74-95-3	5	U	5	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	5	U	5	0.5	1
10335	1,1-Dichloroethane	75-34-3	5	U	5	0.5	1
10335	1,2-Dichloroethane	107-06-2	5	U	5	0.5	1
10335	1,1-Dichloroethene	75-35-4	5	U	5	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.5	1
10335	1,2-Dichloropropane	78-87-5	5	U	5	0.5	1
10335	1,3-Dichloropropane	142-28-9	5	U	5	0.5	1
10335	2,2-Dichloropropane	594-20-7	5	U	5	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.5	1
10335	Ethyl t-butyl ether	637-92-3	5	U	5	0.5	1
10335	Ethylbenzene	100-41-4	5	U	5	0.5	1
10335	Freon 113	76-13-1	5	U	5	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: EB3-052214 Water
SSFL Phase 3 Subarea 5A

LL Sample # WW 7475542
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 15:45 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB322 SDG#: PH195-07EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	5	U	5	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	5	U	5	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	5	U	5	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.5	1
10335	Tetrachloroethene	127-18-4	5	U	5	0.5	1
10335	Toluene	108-88-3	5	U	5	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	5	U	5	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	5	U	5	0.5	1
10335	Trichloroethene	79-01-6	5	U	5	0.5	1
10335	Trichlorofluoromethane	75-69-4	5	U	5	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	5	U	5	0.5	1
10335	m+p-Xylene	179601-23-1	5	U	5	0.5	1
10335	o-Xylene	95-47-6	5	U	5	0.5	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: chlorotrifluoroethene.

GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	
12971	Acenaphthene	83-32-9	0.051	U	0.051	0.010	1
12971	Acenaphthylene	208-96-8	0.051	U	0.051	0.010	1
12971	Anthracene	120-12-7	0.051	U	0.051	0.010	1
12971	Benzo(a)anthracene	56-55-3	0.051	U	0.051	0.010	1
12971	Benzo(a)pyrene	50-32-8	0.051	U	0.051	0.010	1
12971	Benzo(b)fluoranthene	205-99-2	0.051	U	0.051	0.010	1
12971	Benzo(e)pyrene	192-97-2	0.051	U	0.051	0.010	1
12971	Benzo(g,h,i)perylene	191-24-2	0.051	U	0.051	0.010	1
12971	Benzo(k)fluoranthene	207-08-9	0.051	U	0.051	0.010	1
12971	Butylbenzylphthalate	85-68-7	1.0	U	1.0	0.051	1
12971	Di-n-butylphthalate	84-74-2	0.10	J	1.0	0.051	1
12971	Chrysene	218-01-9	0.051	U	0.051	0.010	1
12971	Dibenz(a,h)anthracene	53-70-3	0.051	U	0.051	0.010	1
12971	Diethylphthalate	84-66-2	0.097	J	1.0	0.051	1
12971	Dimethylphthalate	131-11-3	1.0	U	1.0	0.051	1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.097	J	1.0	0.051	1
12971	Fluoranthene	206-44-0	0.051	U	0.051	0.010	1

*=This limit was used in the evaluation of the final result

Sample Description: EB3-052214 Water
SSFL Phase 3 Subarea 5A

LL Sample # WW 7475542
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 15:45 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB322 SDG#: PH195-07EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	
12971	Fluorene	86-73-7	0.051	U	0.051	0.010	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.051	U	0.051	0.010	1
12971	1-Methylnaphthalene	90-12-0	0.051	U	0.051	0.010	1
12971	2-Methylnaphthalene	91-57-6	0.051	U	0.051	0.010	1
12971	Morpholine	110-91-8	20	U	20	20	1
12971	Naphthalene	91-20-3	0.051	U	0.051	0.030	1
12971	N-Nitrosodimethylamine	62-75-9	0.051	U	0.051	0.010	1
12971	Di-n-octylphthalate	117-84-0	1.0	U	1.0	0.051	1
12971	Phenanthrene	85-01-8	0.051	U	0.051	0.030	1
12971	Pyrene	129-00-0	0.051	U	0.051	0.010	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
1-methylnaphthalene

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the result is within the acceptance range allowed by the method, the data is reported.

GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1
Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	
13092	Aroclor 5432	63496-31-1	0.42	U	0.42	0.085	1
13092	Aroclor 5442	12642-23-8	0.42	U	0.42	0.085	1
13092	Aroclor 5460	11126-42-4	0.42	U	0.42	0.093	1
13092	PCB-1016	12674-11-2	0.42	U	0.42	0.085	1
13092	PCB-1221	11104-28-2	0.42	U	0.42	0.085	1
13092	PCB-1232	11141-16-5	0.42	U	0.42	0.17	1
13092	PCB-1242	53469-21-9	0.42	U	0.42	0.085	1
13092	PCB-1248	12672-29-6	0.42	U	0.42	0.085	1
13092	PCB-1254	11097-69-1	0.42	U	0.42	0.085	1
13092	PCB-1260	11096-82-5	0.42	U	0.42	0.13	1
13092	PCB-1262	37324-23-5	0.42	U	0.42	0.17	1
13092	PCB-1268	11100-14-4	0.42	U	0.42	0.14	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**		**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.10	U	0.10	0.050	1
10365	EFH (C15-C20)	n.a.	0.10	U	0.10	0.050	1
10365	EFH (C21-C30)	n.a.	0.10	U	0.10	0.050	1
10365	EFH (C30 - C40)	n.a.	0.50	U	0.50	0.10	1
10365	EFH (C8-C11)	n.a.	0.10	U	0.10	0.050	1
13205	EFH C12-C14 w/ SiGel	n.a.	0.10	U	0.10	0.050	1
13205	EFH C15-C20 w/ SiGel	n.a.	0.10	U	0.10	0.050	1
13205	EFH C21-C30 w/ SiGel	n.a.	0.10	U	0.10	0.050	1
13205	EFH C30-C40 w/ SiGel	n.a.	0.50	U	0.50	0.10	1
13205	EFH C8-C11 w/ SiGel	n.a.	0.10	U	0.10	0.050	1

*=This limit was used in the evaluation of the final result

Sample Description: EB3-052214 Water
SSFL Phase 3 Subarea 5A

LL Sample # WW 7475542
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 15:45 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB322 SDG#: PH195-07EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		mg/l		mg/l	mg/l	
01743	Aluminum	7429-90-5	0.400	U	0.400	0.0828	1
07044	Antimony	7440-36-0	0.0400	U	0.0400	0.0053	1
07035	Arsenic	7440-38-2	0.0400	U	0.0400	0.0068	1
07046	Barium	7440-39-3	0.0100	U	0.0100	0.00033	1
07047	Beryllium	7440-41-7	0.0100	U	0.0100	0.00067	1
08014	Boron	7440-42-8	0.100	U	0.100	0.0084	1
07049	Cadmium	7440-43-9	0.0100	U	0.0100	0.00076	1
01750	Calcium	7440-70-2	0.150	J	0.400	0.0334	1
07051	Chromium	7440-47-3	0.0300	U	0.0300	0.0016	1
07052	Cobalt	7440-48-4	0.0100	U	0.0100	0.0013	1
07053	Copper	7440-50-8	0.0200	U	0.0200	0.0027	1
01754	Iron	7439-89-6	0.400	U	0.400	0.0430	1
07055	Lead	7439-92-1	0.0300	U	0.0300	0.0047	1
01756	Lithium	7439-93-2	0.0400	U	0.0400	0.0047	1
01757	Magnesium	7439-95-4	0.200	U	0.200	0.0167	1
07058	Manganese	7439-96-5	0.00090	J	0.0100	0.00083	1
07060	Molybdenum	7439-98-7	0.0200	U	0.0200	0.0017	1
07061	Nickel	7440-02-0	0.0200	U	0.0200	0.0015	1
10143	Phosphorus	7723-14-0	0.200	U	0.200	0.0418	1
01762	Potassium	7440-09-7	1.00	U	1.00	0.0980	1
01767	Sodium	7440-23-5	2.00	U	2.00	0.167	1
07069	Tin	7440-31-5	0.0400	U	0.0400	0.0029	1
07070	Titanium	7440-32-6	0.0200	U	0.0200	0.0017	1
07071	Vanadium	7440-62-2	0.0100	U	0.0100	0.0020	1
07072	Zinc	7440-66-6	0.0400	U	0.0400	0.0020	1
10144	Zirconium	7440-67-7	0.0108	J	0.100	0.0084	1
	SW-846 6020A		mg/l		mg/l	mg/l	
06041	Selenium	7782-49-2	0.0040	U	0.0040	0.00050	1
06042	Silver	7440-22-4	0.0010	U	0.0010	0.00011	1
06044	Strontium	7440-24-6	0.00046	J	0.0020	0.00034	1
06045	Thallium	7440-28-0	0.0010	U	0.0010	0.00015	1
	SW-846 7470A		mg/l		mg/l	mg/l	
00259	3b Mercury 7470A	7439-97-6	0.00020	U	0.00020	0.000060	1
Wet Chemistry	**SW-846 9040C**		Std. Units		Std. Units	Std. Units	
12152	28b pH (9040B and 9040C)	n.a.	7.2		0.010	0.010	1

*=This limit was used in the evaluation of the final result

Sample Description: EB3-052214 Water
SSFL Phase 3 Subarea 5A

LL Sample # WW 7475542
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 15:45 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB322 SDG#: PH195-07EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	
10915	2378-TCDD	1746-01-6	1.91	U	1.91	0.255	1
10915	12378-PeCDD	40321-76-4	9.56	U	9.56	0.232	1
10915	123478-HxCDD	39227-28-6	9.56	U	9.56	0.186	1
10915	123678-HxCDD	57653-85-7	9.56	U	9.56	0.195	1
10915	123789-HxCDD	19408-74-3	9.56	U	9.56	0.177	1
10915	1234678-HpCDD	35822-46-9	0.865	JBQ	9.56	0.199	1
10915	OCDD	3268-87-9	9.68	JBQ	19.1	0.445	1
10915	2378-TCDF	51207-31-9	0.203	JQ	1.91	0.178	1
10915	12378-PeCDF	57117-41-6	0.289	JBQ	9.56	0.127	1
10915	23478-PeCDF	57117-31-4	9.56	U	9.56	0.117	1
10915	123478-HxCDF	70648-26-9	9.56	U	9.56	0.113	1
10915	123678-HxCDF	57117-44-9	9.56	U	9.56	0.105	1
10915	123789-HxCDF	72918-21-9	9.56	U	9.56	0.121	1
10915	234678-HxCDF	60851-34-5	0.192	JBQ	9.56	0.101	1
10915	1234678-HpCDF	67562-39-4	0.177	JBQ	9.56	0.0723	1
10915	1234789-HpCDF	55673-89-7	0.106	JBQ	9.56	0.0909	1
10915	OCDF	39001-02-0	1.11	JBQ	19.1	0.269	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	U				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	88	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	91	32 - 141
13C12-123678-HxCDD	88	28 - 130
13C12-123789-HxCDD	94	28 - 130
13C12-1234678-HpCDD	94	23 - 140
13C12-OCDD	78	17 - 157
13C12-2378-TCDF	88	24 - 169
13C12-12378-PeCDF	82	24 - 185
13C12-23478-PeCDF	79	21 - 178
13C12-123478-HxCDF	89	26 - 152
13C12-123678-HxCDF	92	26 - 123
13C12-234678-HxCDF	93	28 - 136
13C12-123789-HxCDF	90	29 - 147
13C12-1234678-HpCDF	92	28 - 143
13C12-1234789-HpCDF	86	26 - 138
13C12-OCDF	81	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: EB3-052214 Water
SSFL Phase 3 Subarea 5A

LL Sample # WW 7475542
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 15:45 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB322 SDG#: PH195-07EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: EB3-052214 Water
SSFL Phase 3 Subarea 5A

LL Sample # WW 7475542
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 15:45 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB322 SDG#: PH195-07EB*

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141471AA	05/27/2014 14:12	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141471AA	05/27/2014 14:12	Sarah A Guill	1
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14144WAN026	06/03/2014 08:57	Brian K Graham	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	14144WAN026	05/27/2014 10:30	Anna E Stager	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14149A94A	05/30/2014 00:11	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14149A94A	05/30/2014 00:11	Miranda P Tillinghast	1
13092	21b PCBs and PCTs 8082A	SW-846 8082A	1	141480020A	05/29/2014 18:06	Monica M Souders	1
13093	PCB/PCT Waters Update IV	SW-846 3510C	1	141480020A	05/28/2014 21:30	Karen L Beyer	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440025A	05/28/2014 00:03	Heather E Williams	1
13205	10b TPH-DRO (w/Si Gel)	SW-846 8015B modified	1	141440024A	05/28/2014 11:57	Heather E Williams	1
13212	EFH Water Ext. w/SiGel	SW-846 3510C	1	141440024A	05/27/2014 08:00	Kerrie A Freeburn	1
11203	EFH Waters Extraction	SW-846 3510C	1	141440025A	05/27/2014 08:00	Kerrie A Freeburn	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14148001	05/31/2014 10:40	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B October 1994	1	14148001	05/28/2014 10:15	Brett M Weidman	1
01743	Aluminum	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1
07044	Antimony	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1
07046	Barium	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1
07047	Beryllium	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1
08014	Boron	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1
01750	Calcium	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1
07051	Chromium	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1
07052	Cobalt	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1
07053	Copper	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1
01754	Iron	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1
07055	Lead	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1
01756	Lithium	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1
07058	Manganese	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1
07060	Molybdenum	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1
07061	Nickel	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1
10143	Phosphorus	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1
01762	Potassium	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: EB3-052214 Water
SSFL Phase 3 Subarea 5A

LL Sample # WW 7475542
LL Group # 1476783
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 15:45 by RE

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB322 SDG#: PH195-07EB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01767	Sodium	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1
07069	Tin	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1
07070	Titanium	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1
07072	Zinc	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1
10144	Zirconium	SW-846 6010C	1	141480635002	05/29/2014 19:06	Katlin N Cataldi	1
06041	Selenium	SW-846 6020A	1	141480639002B	05/29/2014 22:47	John P Hook	1
06042	Silver	SW-846 6020A	1	141480639002A	05/29/2014 22:47	John P Hook	1
06044	Strontium	SW-846 6020A	1	141480639002A	05/29/2014 22:47	John P Hook	1
06045	Thallium	SW-846 6020A	1	141480639002A	05/29/2014 22:47	John P Hook	1
00259	3b Mercury 7470A	SW-846 7470A	1	141475713004	05/29/2014 08:32	Damary Valentin	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	141480635002	05/29/2014 10:10	Micaela L Dishong	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	141480639002	05/29/2014 09:22	Micaela L Dishong	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	141475713004	05/28/2014 09:00	James L Mertz	1
12152	28b pH (9040B and 9040C)	SW-846 9040C	1	14144002101A	05/24/2014 11:19	Kenneth A Bell	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476783
Reported: 06/09/14 at 01:54 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: Y141471AA	Sample number(s): 7475542								
Acetone	20 U	20.	6	ug/l	78	84	43-149	7	30
Acrolein	100 U	100.	40	ug/l	94	89	52-129	4	30
Acrylonitrile	20 U	20.	4	ug/l	77	83	62-120	7	30
t-Amyl methyl ether	5 U	5.	0.5	ug/l	98	99	75-120	1	30
Benzene	5 U	5.	0.5	ug/l	104	105	78-120	1	30
Bromobenzene	5 U	5.	1	ug/l	103	103	80-120	0	30
Bromochloromethane	5 U	5.	1	ug/l	102	103	80-121	0	30
Bromodichloromethane	5 U	5.	0.5	ug/l	99	99	73-120	0	30
Bromoform	5 U	5.	0.5	ug/l	86	85	61-120	1	30
Bromomethane	5 U	5.	0.5	ug/l	104	105	58-120	1	30
2-Butanone	10 U	10.	3	ug/l	72	79	54-133	9	30
t-Butyl alcohol	50 U	50.	5	ug/l	97	103	75-120	7	30
n-Butylbenzene	5 U	5.	1	ug/l	100	100	68-120	0	30
sec-Butylbenzene	5 U	5.	1	ug/l	102	104	80-120	2	30
tert-Butylbenzene	5 U	5.	1	ug/l	100	103	73-120	3	30
Carbon Disulfide	5 U	5.	1	ug/l	69	68	58-126	2	30
Carbon Tetrachloride	5 U	5.	0.5	ug/l	107	109	74-130	2	30
Chlorobenzene	5 U	5.	0.5	ug/l	104	103	80-120	1	30
Chloroethane	5 U	5.	0.5	ug/l	89	89	56-120	1	30
2-Chloroethyl Vinyl Ether	10 U	10.	2	ug/l	102	103	54-126	1	30
Chloroform	5 U	5.	0.5	ug/l	106	107	80-122	1	30
1-Chlorohexane	5 U	5.	1	ug/l	104	105	80-120	1	30
Chloromethane	5 U	5.	0.5	ug/l	118	120	63-120	2	30
2-Chlorotoluene	5 U	5.	1	ug/l	100	101	80-120	1	30
4-Chlorotoluene	5 U	5.	1	ug/l	100	101	80-120	1	30
Chlorotrifluoroethene	5 U	5.	2	ug/l	46*	48	47-120	5	30
1,2-Dibromo-3-chloropropane	5 U	5.	2	ug/l	75	83	56-120	10	30
Dibromochloromethane	5 U	5.	0.5	ug/l	101	98	72-120	3	30
1,2-Dibromoethane	5 U	5.	0.5	ug/l	100	101	76-120	1	30
Dibromomethane	5 U	5.	0.5	ug/l	98	99	80-120	1	30
1,2-Dichlorobenzene	5 U	5.	1	ug/l	101	102	80-120	1	30
1,3-Dichlorobenzene	5 U	5.	1	ug/l	101	102	80-120	1	30
1,4-Dichlorobenzene	5 U	5.	1	ug/l	103	103	80-120	1	30
Dichlorodifluoromethane	5 U	5.	0.5	ug/l	115	116	48-132	1	30
1,1-Dichloroethane	5 U	5.	0.5	ug/l	98	99	80-120	1	30
1,2-Dichloroethane	5 U	5.	0.5	ug/l	106	106	65-135	0	30
1,1-Dichloroethene	5 U	5.	0.5	ug/l	112	113	76-124	1	30
cis-1,2-Dichloroethene	5 U	5.	0.5	ug/l	105	106	80-120	1	30
trans-1,2-Dichloroethene	5 U	5.	0.5	ug/l	116	118	80-120	2	30
1,2-Dichloropropane	5 U	5.	0.5	ug/l	101	101	80-120	0	30
1,3-Dichloropropane	5 U	5.	0.5	ug/l	99	99	80-120	0	30
2,2-Dichloropropane	5 U	5.	0.5	ug/l	104	104	67-124	1	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476783
Reported: 06/09/14 at 01:54 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/l	110	110	80-120	1	30
cis-1,3-Dichloropropene	5	U	5.	0.5	ug/l	96	96	80-120	0	30
trans-1,3-Dichloropropene	5	U	5.	0.5	ug/l	95	95	76-120	0	30
Ethyl t-butyl ether	5	U	5.	0.5	ug/l	97	98	74-120	1	30
Ethylbenzene	5	U	5.	0.5	ug/l	102	103	79-120	0	30
Freon 113	5	U	5.	2	ug/l	101	100	67-127	0	30
Freon 133a	5	U	5.	2	ug/l	79	82	46-152	3	30
Hexachlorobutadiene	5	U	5.	2	ug/l	100	98	51-125	2	30
2-Hexanone	10	U	10.	3	ug/l	74	80	44-126	8	30
di-Isopropyl ether	5	U	5.	0.5	ug/l	98	98	65-120	1	30
Isopropylbenzene	5	U	5.	1	ug/l	104	104	77-120	0	30
p-Isopropyltoluene	5	U	5.	1	ug/l	100	101	80-120	1	30
Methyl Iodide	5	U	5.	0.5	ug/l	105	106	75-128	1	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/l	108	108	75-120	0	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	78	84	51-124	6	30
Methylene Chloride	5	U	5.	2	ug/l	116	116	80-120	0	30
n-Propylbenzene	5	U	5.	1	ug/l	102	102	80-120	0	30
Styrene	5	U	5.	1	ug/l	104	103	80-120	0	30
1,1,1,2-Tetrachloroethane	5	U	5.	0.5	ug/l	103	101	80-120	2	30
1,1,2,2-Tetrachloroethane	5	U	5.	0.5	ug/l	89	92	70-120	4	30
Tetrachloroethene	5	U	5.	0.5	ug/l	107	108	80-120	1	30
Toluene	5	U	5.	0.5	ug/l	104	104	80-120	0	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	102	104	58-126	2	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	103	104	65-120	1	30
1,1,1-Trichloroethane	5	U	5.	0.5	ug/l	96	94	66-126	1	30
1,1,2-Trichloroethane	5	U	5.	0.5	ug/l	98	100	80-120	2	30
Trichloroethene	5	U	5.	0.5	ug/l	106	109	80-120	3	30
Trichlorofluoromethane	5	U	5.	0.5	ug/l	117	115	65-130	2	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	89	94	76-120	5	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	103	103	74-120	0	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	102	104	74-120	1	30
Vinyl Acetate	10	U	10.	2	ug/l	74	74	56-135	0	30
Vinyl Chloride	5	U	5.	0.5	ug/l	111	112	63-120	1	30
m+p-Xylene	5	U	5.	0.5	ug/l	102	102	80-120	0	30
o-Xylene	5	U	5.	0.5	ug/l	102	102	80-120	0	30
Batch number: 14144WAN026	Sample number(s): 7475542									
Acenaphthene	0.050	U	0.050	0.010	ug/l	101	107	83-119	6	30
Acenaphthylene	0.050	U	0.050	0.010	ug/l	95	101	81-130	6	30
Anthracene	0.050	U	0.050	0.010	ug/l	96	103	83-125	7	30
Benzo(a)anthracene	0.050	U	0.050	0.010	ug/l	93	100	79-122	6	30
Benzo(a)pyrene	0.050	U	0.050	0.010	ug/l	94	100	80-121	6	30
Benzo(b)fluoranthene	0.050	U	0.050	0.010	ug/l	102	108	79-136	6	30
Benzo(e)pyrene	0.050	U	0.050	0.010	ug/l	96	103	67-118	7	30
Benzo(g,h,i)perylene	0.050	U	0.050	0.010	ug/l	91	97	72-132	7	30
Benzo(k)fluoranthene	0.050	U	0.050	0.010	ug/l	96	100	81-131	5	30
Butylbenzylphthalate	1.0	U	1.0	0.050	ug/l	90	96	40-138	7	30
Di-n-butylphthalate	1.0	U	1.0	0.050	ug/l	100	100	64-141	0	30
Chrysene	0.050	U	0.050	0.010	ug/l	97	101	84-118	4	30
Dibenz(a,h)anthracene	0.050	U	0.050	0.010	ug/l	81	89	66-133	10	30
Diethylphthalate	1.0	U	1.0	0.050	ug/l	96	103	64-137	6	30
Dimethylphthalate	1.0	U	1.0	0.050	ug/l	94	100	23-139	7	30
Bis(2-Ethylhexyl)phthalate	0.056	J	1.0	0.050	ug/l	160*	72	70-143	77*	30
Fluoranthene	0.050	U	0.050	0.010	ug/l	89	94	84-124	6	30
Fluorene	0.050	U	0.050	0.010	ug/l	90	96	82-119	6	30
Indeno(1,2,3-cd)pyrene	0.050	U	0.050	0.010	ug/l	85	93	68-132	8	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476783
Reported: 06/09/14 at 01:54 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	84*	89	86-130	5	30
2-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	83	87	81-131	5	30
Morpholine	20	U	20.	20	ug/l					
Naphthalene	0.050	U	0.050	0.030	ug/l	88	93	82-122	5	30
N-Nitrosodimethylamine	0.050	U	0.050	0.010	ug/l	62	68	56-96	9	30
Di-n-octylphthalate	1.0	U	1.0	0.050	ug/l	59	63	57-145	6	30
Phenanthrene	0.050	U	0.050	0.030	ug/l	92	98	83-116	6	30
Pyrene	0.050	U	0.050	0.010	ug/l	100	107	78-125	7	30
Batch number: 14155SLA026	Sample number(s): 7475534-7475539,7475541									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	113		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	106		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	111		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	98		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	89		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	101		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	80*		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	99		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	84		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	100		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	105		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	91		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	105		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	96		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	85		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	101		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	106		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	103		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	99		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	97		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	102		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	99		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	89		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	100		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	102		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	88		80-119		
Batch number: 14147C16A	Sample number(s): 7475535,7475537-7475539,7475541									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	70		67-120		
Batch number: 14149A94A	Sample number(s): 7475533,7475542									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	96	95	80-133	1	30
Batch number: 141440035A	Sample number(s): 7475534-7475539,7475541									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	94	92	36-106	2	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	106		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	113		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476783
Reported: 06/09/14 at 01:54 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 141480020A	Sample number(s): 7475542									
Aroclor 5432	0.40	U	0.40	0.080	ug/l					
Aroclor 5442	0.40	U	0.40	0.080	ug/l	76	69	34-115	10	30
Aroclor 5460	0.40	U	0.40	0.088	ug/l					
PCB-1016	0.40	U	0.40	0.080	ug/l	99	99	60-117	0	30
PCB-1221	0.40	U	0.40	0.080	ug/l					
PCB-1232	0.40	U	0.40	0.16	ug/l					
PCB-1242	0.40	U	0.40	0.080	ug/l					
PCB-1248	0.40	U	0.40	0.080	ug/l					
PCB-1254	0.40	U	0.40	0.080	ug/l					
PCB-1260	0.40	U	0.40	0.12	ug/l	106	106	67-128	0	30
PCB-1262	0.40	U	0.40	0.16	ug/l					
PCB-1268	0.40	U	0.40	0.13	ug/l					
Batch number: 141440024A	Sample number(s): 7475542									
EFH C12-C14 w/ SiGel	0.10	U	0.10	0.050	mg/l	75	74	67-109	2	30
EFH C15-C20 w/ SiGel	0.10	U	0.10	0.050	mg/l	80	80	71-119	0	30
EFH C21-C30 w/ SiGel	0.10	U	0.10	0.050	mg/l	80	80	75-117	0	30
EFH C30-C40 w/ SiGel	0.50	U	0.50	0.10	mg/l	79	78	44-134	2	30
EFH C8-C11 w/ SiGel	0.10	U	0.10	0.050	mg/l	58	56	55-86	3	30
Batch number: 141440025A	Sample number(s): 7475542									
EFH (C12-C14)	0.10	U	0.10	0.050	mg/l	85	85	67-109	0	30
EFH (C15-C20)	0.10	U	0.10	0.050	mg/l	90	91	71-119	1	30
EFH (C21-C30)	0.10	U	0.10	0.050	mg/l	90	94	75-117	4	30
EFH (C30 - C40)	0.50	U	0.50	0.10	mg/l	82	84	44-134	3	30
EFH (C8-C11)	0.10	U	0.10	0.050	mg/l	71	70	55-86	1	30
Batch number: 141470033A	Sample number(s): 7475534-7475539,7475541									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	87		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	89		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	90		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	78		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	74		60-115		
Batch number: 141470034A	Sample number(s): 7475534-7475539,7475541									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	86		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	90		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	90		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	80		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	62		60-115		
Batch number: 141475713004	Sample number(s): 7475542									
3b Mercury 7470A	0.00020	U	0.00020	0.00006 0	mg/l	105	97	90-115	8	20
Batch number: 141480635002	Sample number(s): 7475542									
Aluminum	0.400	U	0.400	0.0828	mg/l	105	105	90-112	0	20
Antimony	0.0400	U	0.0400	0.0053	mg/l	97	96	88-111	1	20
Arsenic	0.0400	U	0.0400	0.0068	mg/l	105	105	90-113	0	20
Barium	0.0100	U	0.0100	0.00033	mg/l	107	104	90-110	3	20
Beryllium	0.0100	U	0.0100	0.00067	mg/l	102	100	90-111	2	20
Boron	0.100	U	0.100	0.0084	mg/l	98	97	90-110	1	20
Cadmium	0.0100	U	0.0100	0.00076	mg/l	107	106	90-112	2	20
Calcium	0.400	U	0.400	0.0334	mg/l	105	103	90-112	2	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476783
Reported: 06/09/14 at 01:54 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chromium	0.0300 U	0.0300	0.0016	mg/l	104	103	90-110	1	20
Cobalt	0.0100 U	0.0100	0.0013	mg/l	108	107	90-110	1	20
Copper	0.0200 U	0.0200	0.0027	mg/l	107	106	90-112	1	20
Iron	0.400 U	0.400	0.0430	mg/l	105	103	90-112	2	20
Lead	0.0300 U	0.0300	0.0047	mg/l	110	108	88-116	2	20
Lithium	0.0400 U	0.0400	0.0047	mg/l	106	104	90-110	1	20
Magnesium	0.200 U	0.200	0.0167	mg/l	104	102	89-110	1	20
Manganese	0.0100 U	0.0100	0.00083	mg/l	108	106	90-110	2	20
Molybdenum	0.0200 U	0.0200	0.0017	mg/l	105	104	90-110	1	20
Nickel	0.0200 U	0.0200	0.0015	mg/l	111	109	90-111	2	20
Phosphorus	0.200 U	0.200	0.0418	mg/l	103	103	90-110	1	20
Potassium	1.00 U	1.00	0.0980	mg/l	103	102	90-110	1	20
Sodium	2.00 U	2.00	0.167	mg/l	102	101	87-114	1	20
Tin	0.0400 U	0.0400	0.0029	mg/l	102	101	90-110	1	20
Titanium	0.0200 U	0.0200	0.0017	mg/l	106	104	90-113	2	20
Vanadium	0.0100 U	0.0100	0.0020	mg/l	108	106	90-110	2	20
Zinc	0.0400 U	0.0400	0.0020	mg/l	105	103	90-110	2	20
Zirconium	0.0110 J	0.100	0.0084	mg/l	104	103	90-110	1	20
Batch number: 141480638002	Sample number(s): 7475534-7475541								
3a Mercury 7471A	0.0167 U	0.0167	0.0100	mg/kg	85		85-120		
Batch number: 141480639002A	Sample number(s): 7475542								
Silver	0.0010 U	0.0010	0.00011	mg/l	112	104	90-115	8	20
Strontium	0.0020 U	0.0020	0.00034	mg/l	106	103	90-110	3	20
Thallium	0.0010 U	0.0010	0.00015	mg/l	108	100	90-115	7	20
Batch number: 141480639002B	Sample number(s): 7475542								
Selenium	0.0040 U	0.0040	0.00050	mg/l	103	100	90-114	3	20
Batch number: 141490637001	Sample number(s): 7475534-7475541								
Aluminum	7.59 J	40.0	7.21	mg/kg	108		80-120		
Antimony	4.00 U	4.00	0.740	mg/kg	109		80-120		
Arsenic	4.00 U	4.00	0.700	mg/kg	103		80-120		
Barium	1.00 U	1.00	0.0330	mg/kg	102		80-120		
Beryllium	0.0890 J	1.00	0.0670	mg/kg	103		80-120		
Boron	1.60 J	10.0	0.840	mg/kg	101		80-120		
Cadmium	1.00 U	1.00	0.0760	mg/kg	103		80-120		
Calcium	21.3	20.0	3.34	mg/kg	107		80-120		
Chromium	3.00 U	3.00	0.160	mg/kg	101		80-120		
Cobalt	1.00 U	1.00	0.0990	mg/kg	104		80-120		
Copper	2.00 U	2.00	0.290	mg/kg	104		80-120		
Iron	40.0 U	40.0	3.62	mg/kg	106		80-120		
Lead	3.00 U	3.00	0.500	mg/kg	104		80-120		
Lithium	4.0 U	4.0	0.34	mg/kg	102		80-120		
Magnesium	10.0 U	10.0	1.67	mg/kg	102		80-120		
Manganese	1.00 U	1.00	0.0830	mg/kg	103		80-120		
Molybdenum	2.00 U	2.00	0.170	mg/kg	102		80-120		
Nickel	2.00 U	2.00	0.130	mg/kg	107		80-120		
Phosphorus	10.0 U	10.0	2.89	mg/kg	103		80-120		
Potassium	100 U	100.	8.34	mg/kg	102		80-120		
Sodium	100 U	100.	16.7	mg/kg	101		80-120		
Tin	1.59 J	10.0	0.220	mg/kg	102		80-120		
Titanium	1.00 U	1.00	0.170	mg/kg	105		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476783
Reported: 06/09/14 at 01:54 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vanadium	1.00	U	1.00	0.130	mg/kg	106		80-120		
Zinc	4.00	U	4.00	0.200	mg/kg	102		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	105		80-120		
Batch number: 141490637001A	Sample number(s): 7475534-7475541									
Silver	0.200	U	0.200	0.0260	mg/kg	103		80-120		
Strontium	0.103	J	0.400	0.0680	mg/kg	102		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	103		80-120		
Batch number: 141490637001B	Sample number(s): 7475534-7475541									
Selenium	0.400	U	0.400	0.100	mg/kg	107		80-120		
Batch number: 14144002101A	Sample number(s): 7475542									
28b pH (9040B and 9040C)						100		90-110		
Batch number: 14144039401A	Sample number(s): 7475534-7475537,7475540-7475541									
15a pH by 9045D						100		95-105		
Batch number: 14148162401C	Sample number(s): 7475534-7475541									
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14148001	Sample number(s): 7475542									
2378-TCDD	2.00	U	2.00	0.283	pg/l	99		60-150		
12378-PeCDD	10.0	U	10.0	0.243	pg/l	97		60-150		
123478-HxCDD	0.213	J	10.0	0.136	pg/l	97		60-150		
123678-HxCDD	0.251	J	10.0	0.140	pg/l	95		60-150		
123789-HxCDD	0.159	J	10.0	0.128	pg/l	98		60-150		
1234678-HpCDD	0.923	J	10.0	0.166	pg/l	95		60-150		
OCDD	7.17	J	20.0	0.260	pg/l	95		60-150		
2378-TCDF	2.00	U	2.00	0.184	pg/l	96		60-150		
12378-PeCDF	0.603	J	10.0	0.115	pg/l	96		60-150		
23478-PeCDF	10.0	U	10.0	0.111	pg/l	98		60-150		
123478-HxCDF	0.316	J	10.0	0.103	pg/l	101		60-150		
123678-HxCDF	10.0	U	10.0	0.0917	pg/l	99		60-150		
123789-HxCDF	10.0	U	10.0	0.0931	pg/l	99		60-150		
234678-HxCDF	0.178	J	10.0	0.0905	pg/l	97		60-150		
1234678-HpCDF	0.283	J	10.0	0.0667	pg/l	98		60-150		
1234789-HpCDF	0.365	J	10.0	0.0848	pg/l	97		60-150		
OCDF	0.452	J	20.0	0.187	pg/l	96		60-150		
Batch number: 14153005	Sample number(s): 7475534-7475539,7475541									
2378-TCDD	0.0448	J	1.00	0.0438	ng/kg	105		67-158		
12378-PeCDD	0.0540	J	5.00	0.0302	ng/kg	98		70-142		
123478-HxCDD	0.0830	J	5.00	0.0221	ng/kg	94		70-164		
123678-HxCDD	0.0643	J	5.00	0.0226	ng/kg	95		76-134		
123789-HxCDD	0.0684	J	5.00	0.0211	ng/kg	93		64-162		
1234678-HpCDD	0.0893	J	5.00	0.0218	ng/kg	92		70-140		
OCDD	0.452	J	10.0	0.0279	ng/kg	88		78-144		
2378-TCDF	0.0491	J	1.00	0.0294	ng/kg	104		75-158		
12378-PeCDF	0.103	J	5.00	0.0131	ng/kg	95		80-134		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476783
Reported: 06/09/14 at 01:54 PM

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
23478-PeCDF	0.105	J	5.00	0.0135	ng/kg	96		68-160		
123478-HxCDF	0.0629	J	5.00	0.0176	ng/kg	93		72-134		
123678-HxCDF	0.0439	J	5.00	0.0167	ng/kg	93		84-130		
123789-HxCDF	0.0800	J	5.00	0.0195	ng/kg	92		78-130		
234678-HxCDF	0.0522	J	5.00	0.0168	ng/kg	94		70-156		
1234678-HpCDF	0.0727	J	5.00	0.00876	ng/kg	91		82-122		
1234789-HpCDF	0.0705	J	5.00	0.0145	ng/kg	92		78-138		
OCDF	0.182	J	10.0	0.0366	ng/kg	89		63-170		
Batch number: 14148001	Sample number(s): 7475542									
TEQ WHO 2005 - EDLx0.0	0.0648				pg/l					
Batch number: 14153005	Sample number(s): 7475534-7475539,7475541									
TEQ WHO 2005 - EDLx0.0	0.0529				ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14155SLA026	Sample number(s): 7475534-7475539,7475541 UNSPK: 7475537								
Acenaphthene	109	109	48-127	1	30				
Acenaphthylene	101	101	60-128	0	30				
Anthracene	105	102	52-126	2	30				
Benzo(a)anthracene	94	94	44-143	1	30				
Benzo(a)pyrene	84	84	49-137	0	30				
Benzo(b)fluoranthene	94	93	26-142	1	30				
Benzo(e)pyrene	76	76	63-111	0	30				
Benzo(g,h,i)perylene	96	95	33-141	1	30				
Benzo(k)fluoranthene	81	81	49-144	0	30				
Butylbenzylphthalate	98	97	64-156	1	30				
Di-n-butylphthalate	98	99	52-147	0	30				
Chrysene	89	89	43-141	0	30				
Dibenz(a,h)anthracene	101	102	25-145	0	30				
Diethylphthalate	90	91	66-140	0	30				
Dimethylphthalate	82	80	70-123	3	30				
Bis(2-Ethylhexyl)phthalate	101	99	48-164	2	30				
Fluoranthene	96	96	38-153	0	30				
Fluorene	97	96	57-130	1	30				
Indeno(1,2,3-cd)pyrene	96	95	26-139	1	30				
1-Methylnaphthalene	94	93	59-139	1	30				
2-Methylnaphthalene	99	99	46-147	0	30				
Naphthalene	96	94	52-136	2	30				
N-Nitrosodimethylamine	86	87	39-134	0	30				
Di-n-octylphthalate	100	100	52-162	0	30				
Phenanthrene	99	97	50-137	2	30				
Pyrene	83	83	26-143	0	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476783
Reported: 06/09/14 at 01:54 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14147C16A	Sample number(s): 7475535,7475537-7475539,7475541 UNSPK: 7475537								
11a TPH by EPA 8015B GRO	74	87	69-123	21	30				
Batch number: 141440035A	Sample number(s): 7475534-7475539,7475541 UNSPK: 7475537								
PCB-1016	92	95	41-135	3	50				
PCB-1260	96	99	40-134	3	50				
Batch number: 141470033A	Sample number(s): 7475534-7475539,7475541 UNSPK: 7475537								
EFH (C12-C14)	82	91	49-123	9	20				
EFH (C15-C20)	85	95	49-123	9	20				
EFH (C21-C30)	86	96	49-123	10	20				
EFH (C30-C40)	69	74	49-123	6	20				
EFH (C8-C11)	73	83	49-123	12	20				
Batch number: 141470034A	Sample number(s): 7475534-7475539,7475541 UNSPK: 7475537								
EFH C12-C14 w/ SiGel	72	81	49-123	11	20				
EFH C15-C20 w/ SiGel	74	83	49-123	10	20				
EFH C21-C30 w/ SiGel	75	84	49-123	10	20				
EFH C30-C40 w/ SiGel	68	75	49-123	8	20				
EFH C8-C11 w/ SiGel	56	65	49-123	15	20				
Batch number: 141480638002	Sample number(s): 7475534-7475541 UNSPK: 7475537 BKG: 7475537								
3a Mercury 7471A	91	92	65-135	2	20	0.0111 J	0.0105 J	6 (1)	20
Batch number: 141490637001	Sample number(s): 7475534-7475541 UNSPK: 7475537 BKG: 7475537								
Aluminum	2418 (2)	2734 (2)	75-125	3	20	17,700	17,800	1	20
Antimony	77	80	75-125	3	20	3.88 U	3.88 U	0 (1)	20
Arsenic	101	103	75-125	1	20	3.89	4.13	6 (1)	20
Barium	103	103	75-125	0	20	84.5	86.5	2	20
Beryllium	102	101	75-125	1	20	0.751 J	0.776 J	3 (1)	20
Boron	98	98	75-125	0	20	5.99 J	6.29 J	5 (1)	20
Cadmium	96	98	75-125	2	20	0.174 J	0.126 J	32* (1)	20
Calcium	163 (2)	192 (2)	75-125	4	20	2,300	2,380	3	20
Chromium	112	124	75-125	6	20	17.9	18.2	1	20
Cobalt	96	95	75-125	1	20	4.22	8.65	69* (1)	20
Copper	107	137*	75-125	20	20	7.17	7.48	4 (1)	20
Iron	672 (2)	1158 (2)	75-125	2	20	20,600	20,000	3	20
Lead	97	109	75-125	9	20	4.90	5.26	7 (1)	20
Lithium	106	104	75-125	2	20	23.7	23.7	0	20
Magnesium	299 (2)	377 (2)	75-125	3	20	3,780	3,910	3	20
Manganese	129 (2)	134 (2)	75-125	1	20	234	273	15	20
Molybdenum	96	95	75-125	1	20	0.539 J	0.384 J	33* (1)	20
Nickel	101	100	75-125	1	20	9.62	9.91	3 (1)	20
Phosphorus	104	159*	75-125	16	20	203	212	4	20
Potassium	139*	128*	75-125	3	20	1,970	2,030	3	20
Sodium	105	101	75-125	4	20	132	138	5 (1)	20
Tin	92	91	75-125	1	20	2.72 J	2.85 J	5 (1)	20
Titanium	297 (2)	399 (2)	75-125	7	20	1,020	1,030	0	20
Vanadium	109	114	75-125	3	20	35.9	36.1	1	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476783
Reported: 06/09/14 at 01:54 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Zinc	100	142*	75-125	21*	20	41.2	41.8	1	20
Zirconium	97	97	75-125	0	20	3.97 J	4.80 J	19 (1)	20
Batch number: 141490637001A	Sample number(s): 7475534-7475541 UNSPK: 7475537 BKG: 7475537								
Silver	103	103	75-125	1	20	0.0377 J	0.0369 J	2 (1)	20
Strontium	128*	118	75-125	3	20	19.2	19.4	1	20
Thallium	100	104	75-125	2	20	0.217	0.213	2 (1)	20
Batch number: 141490637001B	Sample number(s): 7475534-7475541 UNSPK: 7475537 BKG: 7475537								
Selenium	102	102	75-125	0	20	0.188 J	0.184 J	2 (1)	20
Batch number: 14144002101A	Sample number(s): 7475542 BKG: P474548								
28b pH (9040B and 9040C)						7.2	7.2	0	3
Batch number: 14144039401A	Sample number(s): 7475534-7475537,7475540-7475541 BKG: 7475537								
15a pH by 9045D						7.72	7.74	0	3
Batch number: 14148162401C	Sample number(s): 7475534-7475541 BKG: 7475537								
14a Moisture Content by 160.3						10.1	9.8	3	20
14a Moisture Content by 160.3						10.1	9.8	3	20
14a Moisture Content by 160.3						10.1	9.8	3	20
Batch number: 14153005	Sample number(s): 7475534-7475539,7475541 UNSPK: 7475537								
2378-TCDD	102	103	40-135	1	20				
12378-PeCDD	101	101	40-135	1	20				
123478-HxCDD	96	95	40-135	3	20				
123678-HxCDD	95	97	40-135	1	20				
123789-HxCDD	96	96	40-135	1	20				
1234678-HpCDD	80	84	40-135	4	20				
OCDD	-15*	-4*	40-135	9	20				
2378-TCDF	106	105	40-135	3	20				
12378-PeCDF	96	95	40-135	3	20				
23478-PeCDF	97	98	40-135	0	20				
123478-HxCDF	92	94	40-135	1	20				
123678-HxCDF	94	93	40-135	2	20				
123789-HxCDF	91	93	40-135	1	20				
234678-HxCDF	94	94	40-135	1	20				
1234678-HpCDF	87	87	40-135	1	20				
1234789-HpCDF	91	92	40-135	0	20				
OCDF	87	89	40-135	1	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141471AA

Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476783
Reported: 06/09/14 at 01:54 PM

Surrogate Quality Control

7475542	102	103	98	95
Blank	101	100	99	96
LCS	101	99	100	100
LCSD	101	101	100	99
Limits:	86-118	80-120	88-110	86-115

Analysis Name: 7b SVOC SIM EPA 8270D
Batch number: 14144WAN026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7475542	91	103	82
Blank	80	92	72
LCS	92	106	84
LCSD	98	114	89
Limits:	59-128	62-141	70-134

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14155SLA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7475534	99	107	90
7475535	92	109	89
7475536	106	113	90
7475537	93	108	86
7475538	98	114	91
7475539	98	114	92
7475541	99	112	93
Blank	106	122*	93
LCS	107	123*	94
MS	98	114	91
MSD	98	114	92
Limits:	59-115	61-118	70-127

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 14147C16A

	Trifluorotoluene-F
7475535	87
7475537	86
7475538	83
7475539	83
7475541	89
Blank	90
LCS	86
MS	83
MSD	83
Limits:	50-142

Analysis Name: 11b TPH by EPA 8015B GRO

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476783
Reported: 06/09/14 at 01:54 PM

Surrogate Quality Control

Batch number: 14149A94A

	Trifluorotoluene-F
7475533	80
7475542	79
Blank	82
LCS	91
LCSD	90
Limits:	63-135

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141440035A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7475534	85	92
7475535	100	103
7475536	93	97
7475537	99	103
7475538	100	105
7475539	101	107
7475541	96	102
Blank	112	116
LCS	118	128*
LCSD	107	114
MS	100	105
MSD	101	107
Limits:	45-120	45-120

Analysis Name: 21b PCBs and PCTs 8082A
Batch number: 141480020A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7475542	112	106
Blank	120	97
LCS	114	88
LCSD	114	86
Limits:	45-120	45-120

Analysis Name: 10b TPH-DRO (w/Si Gel)
Batch number: 141440024A

	Chlorobenzene	Orthoterphenyl
7475542	65	73
Blank	82	91
LCS	68	74
LCSD	66	74
Limits:	45-126	69-119

Analysis Name: 10b TPH by EPA 8015B (DRO)
Batch number: 141440025A

	Chlorobenzene	Orthoterphenyl

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476783
Reported: 06/09/14 at 01:54 PM

Surrogate Quality Control

7475542	71	79
Blank	73	85
LCS	72	84
LCSD	72	84
Limits:	45-126	69-119

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141470033A

	Chlorobenzene	Orthoterphenyl
7475534	84	86
7475535	74	79
7475536	84	83
7475537	75	80
7475538	72	83
7475539	80	90
7475541	76	82
Blank	79	90
LCS	75	88
MS	72	83
MSD	80	90
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141470034A

	Chlorobenzene	Orthoterphenyl
7475534	63	82
7475535	74	75
7475536	72	81
7475537	74	76
7475538	68	75
7475539	77	83
7475541	86	89
Blank	67	80
LCS	77	88
MS	68	75
MSD	77	83
Limits:	37-125	66-123

Analysis Name: 17b Dioxin/Furan by EPA 1613B
Batch number: 14148001

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7475542	88	76	91	88	94	94
Blank	81	82	85	85	89	86
OPR	83	87	90	90	88	91
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7475542	78	88	82	79	89	92

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476783
Reported: 06/09/14 at 01:54 PM

Surrogate Quality Control

Blank	73	79	83	81	81	84
OPR	87	83	88	88	87	90
Limits:	17-157	24-169	24-185	21-178	26-152	26-123
	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	
7475542	93	90	92	86	81	
Blank	84	91	86	80	71	
OPR	89	93	92	86	80	
Limits:	28-136	29-147	28-143	26-138	17-157	

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 14153005

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7475534	85	93	84	87	90	83
7475535	85	96	86	90	92	90
7475536	93	98	90	91	91	83
7475537	87	91	83	85	86	77
7475538	77	87	82	85	85	82
7475539	82	89	84	83	86	81
7475541	71	83	81	86	85	77
Blank	91	95	90	91	92	82
MS	77	87	82	85	85	82
MSD	82	89	84	83	86	81
OPR	76	83	79	77	80	70
Limits:	25-164	25-181	32-141	28-130	28-130	23-140
	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7475534	77	95	102	96	79	87
7475535	86	89	106	95	75	90
7475536	69	100	96	98	83	83
7475537	67	90	102	90	75	88
7475538	76	80	95	89	74	84
7475539	76	84	101	89	74	86
7475541	65	71	86	80	70	81
Blank	69	97	103	98	84	91
MS	76	80	95	89	74	84
MSD	76	84	101	89	74	86
OPR	60	82	90	84	72	79
Limits:	17-157	24-169	24-185	21-178	26-152	26-123
	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	
7475534	82	79	96	71	61	
7475535	80	72	117	65	56	
7475536	85	87	82	78	64	
7475537	79	72	103	55	44	
7475538	78	75	99	65	57	
7475539	77	75	103	61	53	
7475541	74	64	97	53	41	

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476783
Reported: 06/09/14 at 01:54 PM

Surrogate Quality Control

Blank	86	83	99	67	55
MS	78	75	99	65	57
MSD	77	75	103	61	53
OPR	75	72	86	58	47
Limits:	28-136	29-147	28-143	26-138	17-157

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/22/2014
CarrierName: FedEx
AirbillNo: 770073250078

A-13013
G-1476783
S-74755533-42

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140522-04
Cooler #: 3
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc. Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488--09a	Other Analysis/Notes
TB3-052214	5/22/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																			X															
SL-730-SA5A-TR-0.5	5/22/14 09:56	SO	None	2 - 16 oz glass	10 day	X		X				X		X	X			X								X													
SL-730-SA5A-TR-6.0	5/22/14 10:09	SO	None	2 - 16 oz glass	10 day	X		X				X		X	X			X								X													
SL-730-SA5A-TR-6.0	5/22/14 10:09	SO	None	2 - Encore	10 day																			X															
SL-587-SA5A-TR-0.5	5/22/14 12:14	SO	None	2 - 16 oz glass	10 day	X		X				X		X	X			X								X													
SL-587-SA5A-TR-5.5MS	5/22/14 13:03	SO	None	6 - 16 oz glass	10 day	X		X				X		X	X			X								X													MS/MSD
SL-587-SA5A-TR-5.5MS	5/22/14 13:03	SO	None	6 - Encore	10 day																			X															MS/MSD
SL-887-SA5A-TR-5.5	5/22/14 13:08	SO	None	2 - Encore	10 day																			X															
SL-887-SA5A-TR-5.5	5/22/14 13:08	SO	None	2 - 16 oz glass	10 day	X		X				X		X	X			X								X													

Special Instructions: For all EFH, silica gel clean up required on half the extract. Analyze both extracts for EFH.

Sampler: Rob Ellen

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Greg Murphy	5/23/14	1600									
									5/23/14	950	

Trenching

SSFL Phase 3 Chain of Custody

CDM Smith

A-13013
G-1476783
S-7475533-42

DateShipped: 5/22/2014
CarrierName: FedEx
AirbillNo: 770073250078

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140522-05
Cooler #: 4
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
EB3-052214	5/22/14 15:45	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	X		X																															
EB3-052214	5/22/14 15:45	WQ	None	1 - 250 mL Amber	10 day							X																											
EB3-052214	5/22/14 15:45	WQ	None	2 - 1 L Amber	10 day									X																								
EB3-052214	5/22/14 15:45	WQ	None	1 - 250 mL Amber	10 day										X																							
EB3-052214	5/22/14 15:45	WQ	None	1 - 250 mL Poly	10 day														X																		
EB3-052214	5/22/14 15:45	WQ	HCl	3 - 40 mL Vial	10 day																			X													
EB3-052214	5/22/14 15:45	WQ	HCl	2 - 1 L Amber	10 day																				X												
EB3-052214	5/22/14 15:45	WQ	None	1 - 250 mL Amber	10 day						X																											Morpholine Only
EB3-052214	5/22/14 15:45	WQ	HCl	3 - 40 mL Vial	10 day																		X														

Special Instructions: For all EFH, silica gel clean up required on half the extract. Analyze both extracts for EFH.

Sampler: Rob Ellis

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Rob Ellis	05/22/14	1600									
										5.23.14	950

Trenching

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Sample Administration Receipt Documentation Log

Doc Log ID: 15429

Group Number(s): 1476783

Client: CDM

SSFL

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/23/2014 9:50
Number of Packages:	3	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	9
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Brandy Barclay (2299) at 10:58 on 05/23/2014

Samples Chilled Details: SSFL

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT146	1.6	DT	Wet	Y	Bagged	N	N
2	DT146	1.0	DT	Wet	Y	Bagged	N	N
3	DT146	1.5	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 09, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/23/2014
Group Number: 1476822
SDG: PH196
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
EB1-052214 Water	7475817
EB2-052214 Water	7475818
TB1-052214 Water	7475819
FDG2-SL-628-SA8-SB-0.0-0.5 Soil	7475820
FDG2-SL-628-SA8-SB-4.0-5.0 Soil	7475821
FDG2-SL-628-SA8-SB-9.0-10.0 Soil	7475822
FDG2-SL-628-SA8-SB-14.0-15.0 Soil	7475823
FDG2-SL-578-NBZ-SB-0.0-0.5 Soil	7475824
FDG2-SL-581-NBZ-SB-0.0-0.5 Soil	7475825
FDG2-SL-581-NBZ-SB-4.0-5.0 Soil	7475826
FDG2-SL-581-NBZ-SB-9.0-10.0 Soil	7475827
FDG2-SL-581-NBZ-SB-13.0-14.0 Soil	7475828

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: EB1-052214 Water
SSFL Phase 3 Subarea 8/NBZ

LL Sample # WW 7475817
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 15:00 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB122 SDG#: PH196-01EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	5	U	5	0.5	1
10335	Benzene	71-43-2	5	U	5	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	5	U	5	0.5	1
10335	Bromoform	75-25-2	5	U	5	0.5	1
10335	Bromomethane	74-83-9	5	U	5	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	5	U	5	0.5	1
10335	Chlorobenzene	108-90-7	5	U	5	0.5	1
10335	Chloroethane	75-00-3	5	U	5	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	0.6	J	5	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	5	U	5	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	5	U	5	0.5	1
10335	1,2-Dibromoethane	106-93-4	5	U	5	0.5	1
10335	Dibromomethane	74-95-3	5	U	5	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	5	U	5	0.5	1
10335	1,1-Dichloroethane	75-34-3	5	U	5	0.5	1
10335	1,2-Dichloroethane	107-06-2	5	U	5	0.5	1
10335	1,1-Dichloroethene	75-35-4	5	U	5	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.5	1
10335	1,2-Dichloropropane	78-87-5	5	U	5	0.5	1
10335	1,3-Dichloropropane	142-28-9	5	U	5	0.5	1
10335	2,2-Dichloropropane	594-20-7	5	U	5	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.5	1
10335	Ethyl t-butyl ether	637-92-3	5	U	5	0.5	1
10335	Ethylbenzene	100-41-4	5	U	5	0.5	1
10335	Freon 113	76-13-1	5	U	5	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: EB1-052214 Water
SSFL Phase 3 Subarea 8/NBZ

LL Sample # WW 7475817
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 15:00 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB122 SDG#: PH196-01EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	5	U	5	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	5	U	5	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	7		5	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.5	1
10335	Tetrachloroethene	127-18-4	5	U	5	0.5	1
10335	Toluene	108-88-3	5	U	5	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	5	U	5	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	5	U	5	0.5	1
10335	Trichloroethene	79-01-6	5	U	5	0.5	1
10335	Trichlorofluoromethane	75-69-4	5	U	5	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	5	U	5	0.5	1
10335	m+p-Xylene	179601-23-1	5	U	5	0.5	1
10335	o-Xylene	95-47-6	5	U	5	0.5	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: chlorotrifluoroethene.

GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/l		ug/l	ug/l	
12971	Acenaphthene	83-32-9	0.051	U	0.051	0.010	1
12971	Acenaphthylene	208-96-8	0.051	U	0.051	0.010	1
12971	Anthracene	120-12-7	0.051	U	0.051	0.010	1
12971	Benzo(a)anthracene	56-55-3	0.051	U	0.051	0.010	1
12971	Benzo(a)pyrene	50-32-8	0.051	U	0.051	0.010	1
12971	Benzo(b)fluoranthene	205-99-2	0.051	U	0.051	0.010	1
12971	Benzo(e)pyrene	192-97-2	0.051	U	0.051	0.010	1
12971	Benzo(g,h,i)perylene	191-24-2	0.051	U	0.051	0.010	1
12971	Benzo(k)fluoranthene	207-08-9	0.051	U	0.051	0.010	1
12971	Butylbenzylphthalate	85-68-7	1.0	U	1.0	0.051	1
12971	Di-n-butylphthalate	84-74-2	0.090	J	1.0	0.051	1
12971	Chrysene	218-01-9	0.051	U	0.051	0.010	1
12971	Dibenz(a,h)anthracene	53-70-3	0.051	U	0.051	0.010	1
12971	Diethylphthalate	84-66-2	0.053	J	1.0	0.051	1
12971	Dimethylphthalate	131-11-3	1.0	U	1.0	0.051	1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.20	J	1.0	0.051	1
12971	Fluoranthene	206-44-0	0.051	U	0.051	0.010	1

*=This limit was used in the evaluation of the final result

Sample Description: EB1-052214 Water
SSFL Phase 3 Subarea 8/NBZ

LL Sample # WW 7475817
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 15:00 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB122 SDG#: PH196-01EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	
12971	Fluorene	86-73-7	0.051	U	0.051	0.010	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.051	U	0.051	0.010	1
12971	1-Methylnaphthalene	90-12-0	0.020	J	0.051	0.010	1
12971	2-Methylnaphthalene	91-57-6	0.030	J	0.051	0.010	1
12971	Naphthalene	91-20-3	0.11		0.051	0.031	1
12971	N-Nitrosodimethylamine	62-75-9	0.051	U	0.051	0.010	1
12971	Di-n-octylphthalate	117-84-0	1.0	U	1.0	0.051	1
12971	Phenanthrene	85-01-8	0.051	U	0.051	0.031	1
12971	Pyrene	129-00-0	0.051	U	0.051	0.010	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
1-methylnaphthalene

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the result is within the acceptance range allowed by the method, the data is reported.

GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1
Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	
13092	Aroclor 5432	63496-31-1	0.42	U	0.42	0.084	1
13092	Aroclor 5442	12642-23-8	0.42	U	0.42	0.084	1
13092	Aroclor 5460	11126-42-4	0.42	U	0.42	0.093	1
13092	PCB-1016	12674-11-2	0.42	U	0.42	0.084	1
13092	PCB-1221	11104-28-2	0.42	U	0.42	0.084	1
13092	PCB-1232	11141-16-5	0.42	U	0.42	0.17	1
13092	PCB-1242	53469-21-9	0.42	U	0.42	0.084	1
13092	PCB-1248	12672-29-6	0.42	U	0.42	0.084	1
13092	PCB-1254	11097-69-1	0.42	U	0.42	0.084	1
13092	PCB-1260	11096-82-5	0.42	U	0.42	0.13	1
13092	PCB-1262	37324-23-5	0.42	U	0.42	0.17	1
13092	PCB-1268	11100-14-4	0.42	U	0.42	0.14	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**		**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.10	U	0.10	0.050	1
10365	EFH (C15-C20)	n.a.	0.10	U	0.10	0.050	1
10365	EFH (C21-C30)	n.a.	0.10	U	0.10	0.050	1
10365	EFH (C30 - C40)	n.a.	0.50	U	0.50	0.10	1
10365	EFH (C8-C11)	n.a.	0.10	U	0.10	0.050	1
13205	EFH C12-C14 w/ SiGel	n.a.	0.10	U	0.10	0.050	1
13205	EFH C15-C20 w/ SiGel	n.a.	0.10	U	0.10	0.050	1
13205	EFH C21-C30 w/ SiGel	n.a.	0.10	U	0.10	0.050	1
13205	EFH C30-C40 w/ SiGel	n.a.	0.50	U	0.50	0.10	1
13205	EFH C8-C11 w/ SiGel	n.a.	0.10	U	0.10	0.050	1

The reverse surrogate, capric acid, is present at <1%.

*=This limit was used in the evaluation of the final result

Sample Description: EB1-052214 Water
SSFL Phase 3 Subarea 8/NBZ

LL Sample # WW 7475817
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 15:00 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB122 SDG#: PH196-01EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400 U	0.400	0.0828	1
07044	Antimony	7440-36-0	0.0400 U	0.0400	0.0053	1
07035	Arsenic	7440-38-2	0.0400 U	0.0400	0.0068	1
07046	Barium	7440-39-3	0.0100 U	0.0100	0.00033	1
07047	Beryllium	7440-41-7	0.0100 U	0.0100	0.00067	1
08014	Boron	7440-42-8	0.100 U	0.100	0.0084	1
07049	Cadmium	7440-43-9	0.0100 U	0.0100	0.00076	1
01750	Calcium	7440-70-2	0.400 U	0.400	0.0334	1
07051	Chromium	7440-47-3	0.0300 U	0.0300	0.0016	1
07052	Cobalt	7440-48-4	0.0100 U	0.0100	0.0013	1
07053	Copper	7440-50-8	0.0200 U	0.0200	0.0027	1
01754	Iron	7439-89-6	0.400 U	0.400	0.0430	1
07055	Lead	7439-92-1	0.0300 U	0.0300	0.0047	1
01756	Lithium	7439-93-2	0.0400 U	0.0400	0.0047	1
01757	Magnesium	7439-95-4	0.200 U	0.200	0.0167	1
07058	Manganese	7439-96-5	0.0100 U	0.0100	0.00083	1
07060	Molybdenum	7439-98-7	0.0200 U	0.0200	0.0017	1
07061	Nickel	7440-02-0	0.0200 U	0.0200	0.0015	1
10143	Phosphorus	7723-14-0	0.200 U	0.200	0.0418	1
01762	Potassium	7440-09-7	1.00 U	1.00	0.0980	1
01767	Sodium	7440-23-5	2.00 U	2.00	0.167	1
07069	Tin	7440-31-5	0.0400 U	0.0400	0.0029	1
07070	Titanium	7440-32-6	0.0200 U	0.0200	0.0017	1
07071	Vanadium	7440-62-2	0.0100 U	0.0100	0.0020	1
07072	Zinc	7440-66-6	0.0400 U	0.0400	0.0020	1
10144	Zirconium	7440-67-7	0.0109 J	0.100	0.0084	1
	SW-846 6020A		**mg/l**	**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040 U	0.0040	0.00050	1
06042	Silver	7440-22-4	0.0010 U	0.0010	0.00011	1
06044	Strontium	7440-24-6	0.0020 U	0.0020	0.00034	1
06045	Thallium	7440-28-0	0.0010 U	0.0010	0.00015	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A	7439-97-6	0.00020 U	0.00020	0.000060	1
Wet Chemistry	**SW-846 9040C**		**Std. Units**	**Std. Units**	**Std. Units**	
12152	28b pH (9040B and 9040C)	n.a.	5.4	0.010	0.010	1
	The sample was analyzed outside of the project required holding time of 48 hours.					

*=This limit was used in the evaluation of the final result

Sample Description: EB1-052214 Water
SSFL Phase 3 Subarea 8/NBZ

LL Sample # WW 7475817
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 15:00 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB122 SDG#: PH196-01EB

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA
The temperature of the temperature blank bottle(s) upon receipt at the lab was 15.3 C using a digital thermometer. The sample bottles were then measured using an IR thermometer and were recorded at 13.3-16.3 C.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141471AA	05/27/2014 14:33	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141471AA	05/27/2014 14:33	Sarah A Guill	1
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14144WAN026	06/03/2014 09:26	Brian K Graham	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	14144WAN026	05/27/2014 10:30	Anna E Stager	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14149A94A	05/30/2014 00:37	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14149A94A	05/30/2014 00:37	Miranda P Tillinghast	1
13092	21b PCBs and PCTs 8082A	SW-846 8082A	1	141480020A	05/29/2014 18:24	Monica M Souders	1
13093	PCB/PCT Waters Update IV	SW-846 3510C	1	141480020A	05/28/2014 21:30	Karen L Beyer	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440025A	05/28/2014 00:25	Heather E Williams	1
13205	10b TPH-DRO (w/Si Gel)	SW-846 8015B modified	1	141440024A	05/28/2014 12:18	Heather E Williams	1
13212	EFH Water Ext. w/SiGel	SW-846 3510C	1	141440024A	05/27/2014 08:00	Kerrie A Freeburn	1
11203	EFH Waters Extraction	SW-846 3510C	1	141440025A	05/27/2014 08:00	Kerrie A Freeburn	1
01743	Aluminum	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1
07044	Antimony	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1
07046	Barium	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1
07047	Beryllium	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1
08014	Boron	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1
01750	Calcium	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1
07051	Chromium	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1
07052	Cobalt	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1
07053	Copper	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1
01754	Iron	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1
07055	Lead	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1
01756	Lithium	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1
07058	Manganese	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1
07060	Molybdenum	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1
07061	Nickel	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1
10143	Phosphorus	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1
01762	Potassium	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1
01767	Sodium	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1
07069	Tin	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: EB1-052214 Water
SSFL Phase 3 Subarea 8/NBZ

LL Sample # WW 7475817
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 15:00 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB122 SDG#: PH196-01EB

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07070	Titanium	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1
07072	Zinc	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1
10144	Zirconium	SW-846 6010C	1	141480635002	05/29/2014 19:10	Katlin N Cataldi	1
06041	Selenium	SW-846 6020A	1	141480639002B	05/29/2014 22:50	John P Hook	1
06042	Silver	SW-846 6020A	1	141480639002A	05/29/2014 22:50	John P Hook	1
06044	Strontium	SW-846 6020A	1	141480639002A	05/29/2014 22:50	John P Hook	1
06045	Thallium	SW-846 6020A	1	141480639002A	05/29/2014 22:50	John P Hook	1
00259	3b Mercury 7470A	SW-846 7470A	1	141475713004	05/29/2014 08:34	Damary Valentin	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	141480635002	05/29/2014 10:10	Micaela L Dishong	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	141480639002	05/29/2014 09:22	Micaela L Dishong	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	141475713004	05/28/2014 09:00	James L Mertz	1
12152	28b pH (9040B and 9040C)	SW-846 9040C	1	14147002104A	05/27/2014 22:21	Michele L Graham	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-052214 Water
SSFL Phase 3 Subarea 8/NBZ

LL Sample # WW 7475818
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 15:30 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB222 SDG#: PH196-02EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	
12971	Acenaphthene	83-32-9	0.054	U	0.054	0.011	1
12971	Acenaphthylene	208-96-8	0.054	U	0.054	0.011	1
12971	Anthracene	120-12-7	0.054	U	0.054	0.011	1
12971	Benzo(a)anthracene	56-55-3	0.054	U	0.054	0.011	1
12971	Benzo(a)pyrene	50-32-8	0.054	U	0.054	0.011	1
12971	Benzo(b)fluoranthene	205-99-2	0.054	U	0.054	0.011	1
12971	Benzo(e)pyrene	192-97-2	0.054	U	0.054	0.011	1
12971	Benzo(g,h,i)perylene	191-24-2	0.054	U	0.054	0.011	1
12971	Benzo(k)fluoranthene	207-08-9	0.054	U	0.054	0.011	1
12971	Butylbenzylphthalate	85-68-7	1.1	U	1.1	0.054	1
12971	Di-n-butylphthalate	84-74-2	0.10	J	1.1	0.054	1
12971	Chrysene	218-01-9	0.054	U	0.054	0.011	1
12971	Dibenz(a,h)anthracene	53-70-3	0.054	U	0.054	0.011	1
12971	Diethylphthalate	84-66-2	1.1	U	1.1	0.054	1
12971	Dimethylphthalate	131-11-3	1.1	U	1.1	0.054	1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.095	J	1.1	0.054	1
12971	Fluoranthene	206-44-0	0.054	U	0.054	0.011	1
12971	Fluorene	86-73-7	0.054	U	0.054	0.011	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.054	U	0.054	0.011	1
12971	1-Methylnaphthalene	90-12-0	0.033	J	0.054	0.011	1
12971	2-Methylnaphthalene	91-57-6	0.052	J	0.054	0.011	1
12971	Naphthalene	91-20-3	0.15		0.054	0.032	1
12971	N-Nitrosodimethylamine	62-75-9	0.054	U	0.054	0.011	1
12971	Di-n-octylphthalate	117-84-0	1.1	U	1.1	0.054	1
12971	Phenanthrene	85-01-8	0.054	U	0.054	0.032	1
12971	Pyrene	129-00-0	0.054	U	0.054	0.011	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
1-methylnaphthalene

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the result is within the acceptance range allowed by the method, the data is reported.

GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1
Aldehydes & Ketones	**SW-846 8315A**		**ug/l**		**ug/l**	**ug/l**	
13022	Formaldehyde	50-00-0	50	U	50	30	1
Pesticides/PCBs	**SW-846 8081B**		**ug/l**		**ug/l**	**ug/l**	
10589	Aldrin	309-00-2	0.0092	U	0.0092	0.0018	1
10589	Alpha BHC	319-84-6	0.0092	U	0.0092	0.0028	1
10589	Beta BHC	319-85-7	0.0092	U	0.0092	0.0031	1
10589	Gamma BHC - Lindane	58-89-9	0.0092	U	0.0092	0.0018	1
10589	Chlordane	57-74-9	0.46	U	0.46	0.15	1
10589	p,p-DDD	72-54-8	0.018	U	0.018	0.0046	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-052214 Water
SSFL Phase 3 Subarea 8/NBZ

LL Sample # WW 7475818
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 15:30 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB222 SDG#: PH196-02EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/l**		**ug/l**	**ug/l**	
10589	p,p-DDE	72-55-9	0.018	U	0.018	0.0046	1
10589	p,p-DDT	50-29-3	0.018	U	0.018	0.0048	1
10589	Delta BHC	319-86-8	0.0092	U	0.0092	0.0031	1
10589	Dieldrin	60-57-1	0.018	U	0.018	0.0049	1
10589	Endosulfan I	959-98-8	0.0092	U	0.0092	0.0040	1
10589	Endosulfan II	33213-65-9	0.018	U	0.018	0.014	1
10589	Endosulfan Sulfate	1031-07-8	0.018	U	0.018	0.0053	1
10589	Endrin	72-20-8	0.018	U	0.018	0.0075	1
10589	Endrin Aldehyde	7421-93-4	0.092	U	0.092	0.018	1
10589	Endrin Ketone	53494-70-5	0.018	U	0.018	0.0046	1
10589	Heptachlor	76-44-8	0.0092	U	0.0092	0.0018	1
10589	Heptachlor Epoxide	1024-57-3	0.0092	U	0.0092	0.0021	1
10589	Methoxychlor	72-43-5	0.092	U	0.092	0.028	1
10589	Mirex	2385-85-5	0.046	U	0.046	0.0092	1
10589	Toxaphene	8001-35-2	0.92	U	0.92	0.28	1
Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	
13092	Aroclor 5432	63496-31-1	0.42	U	0.42	0.085	1
13092	Aroclor 5442	12642-23-8	0.42	U	0.42	0.085	1
13092	Aroclor 5460	11126-42-4	0.42	U	0.42	0.093	1
13092	PCB-1016	12674-11-2	0.42	U	0.42	0.085	1
13092	PCB-1221	11104-28-2	0.42	U	0.42	0.085	1
13092	PCB-1232	11141-16-5	0.42	U	0.42	0.17	1
13092	PCB-1242	53469-21-9	0.42	U	0.42	0.085	1
13092	PCB-1248	12672-29-6	0.42	U	0.42	0.085	1
13092	PCB-1254	11097-69-1	0.42	U	0.42	0.085	1
13092	PCB-1260	11096-82-5	0.42	U	0.42	0.13	1
13092	PCB-1262	37324-23-5	0.42	U	0.42	0.17	1
13092	PCB-1268	11100-14-4	0.42	U	0.42	0.14	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**		**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.10	U	0.10	0.050	1
10365	EFH (C15-C20)	n.a.	0.10	U	0.10	0.050	1
10365	EFH (C21-C30)	n.a.	0.10	U	0.10	0.050	1
10365	EFH (C30 - C40)	n.a.	0.50	U	0.50	0.10	1
10365	EFH (C8-C11)	n.a.	0.10	U	0.10	0.050	1
13205	EFH C12-C14 w/ SiGel	n.a.	0.10	U	0.10	0.050	1
13205	EFH C15-C20 w/ SiGel	n.a.	0.10	U	0.10	0.050	1
13205	EFH C21-C30 w/ SiGel	n.a.	0.10	U	0.10	0.050	1
13205	EFH C30-C40 w/ SiGel	n.a.	0.50	U	0.50	0.10	1
13205	EFH C8-C11 w/ SiGel	n.a.	0.10	U	0.10	0.050	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/l**		**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400	U	0.400	0.0828	1
07044	Antimony	7440-36-0	0.0400	U	0.0400	0.0053	1
07035	Arsenic	7440-38-2	0.0400	U	0.0400	0.0068	1
07046	Barium	7440-39-3	0.0100	U	0.0100	0.00033	1
07047	Beryllium	7440-41-7	0.0100	U	0.0100	0.00067	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-052214 Water
SSFL Phase 3 Subarea 8/NBZ

LL Sample # WW 7475818
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 15:30 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB222 SDG#: PH196-02EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	
08014	Boron	7440-42-8	0.100 U	0.100	0.0084	1
07049	Cadmium	7440-43-9	0.0100 U	0.0100	0.00076	1
01750	Calcium	7440-70-2	0.400 U	0.400	0.0334	1
07051	Chromium	7440-47-3	0.0300 U	0.0300	0.0016	1
07052	Cobalt	7440-48-4	0.0100 U	0.0100	0.0013	1
07053	Copper	7440-50-8	0.0200 U	0.0200	0.0027	1
01754	Iron	7439-89-6	0.400 U	0.400	0.0430	1
07055	Lead	7439-92-1	0.0300 U	0.0300	0.0047	1
01756	Lithium	7439-93-2	0.0400 U	0.0400	0.0047	1
01757	Magnesium	7439-95-4	0.200 U	0.200	0.0167	1
07058	Manganese	7439-96-5	0.0100 U	0.0100	0.00083	1
07060	Molybdenum	7439-98-7	0.0200 U	0.0200	0.0017	1
07061	Nickel	7440-02-0	0.0200 U	0.0200	0.0015	1
10143	Phosphorus	7723-14-0	0.200 U	0.200	0.0418	1
01762	Potassium	7440-09-7	1.00 U	1.00	0.0980	1
01767	Sodium	7440-23-5	2.00 U	2.00	0.167	1
07069	Tin	7440-31-5	0.0400 U	0.0400	0.0029	1
07070	Titanium	7440-32-6	0.0200 U	0.0200	0.0017	1
07071	Vanadium	7440-62-2	0.0100 U	0.0100	0.0020	1
07072	Zinc	7440-66-6	0.0400 U	0.0400	0.0020	1
10144	Zirconium	7440-67-7	0.0108 J	0.100	0.0084	1
	SW-846 6020A		**mg/l**	**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040 U	0.0040	0.00050	1
06042	Silver	7440-22-4	0.0010 U	0.0010	0.00011	1
06044	Strontium	7440-24-6	0.0020 U	0.0020	0.00034	1
06045	Thallium	7440-28-0	0.0010 U	0.0010	0.00015	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A	7439-97-6	0.00020 U	0.00020	0.000060	1
Wet Chemistry	**SW-846 9040C**		**Std. Units**	**Std. Units**	**Std. Units**	
12152	28b pH (9040B and 9040C)	n.a.	6.8	0.010	0.010	1
	The sample was analyzed outside of the project required holding time of 48 hours.					

*=This limit was used in the evaluation of the final result

Sample Description: EB2-052214 Water
SSFL Phase 3 Subarea 8/NBZ

LL Sample # WW 7475818
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 15:30 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB222 SDG#: PH196-02EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	
10915	2378-TCDD	1746-01-6	0.235	JBQ	1.96	0.188	1
10915	12378-PeCDD	40321-76-4	0.485	JBQ	9.78	0.172	1
10915	123478-HxCDD	39227-28-6	0.438	JB	9.78	0.113	1
10915	123678-HxCDD	57653-85-7	0.450	JBQ	9.78	0.120	1
10915	123789-HxCDD	19408-74-3	9.78	U	9.78	0.118	1
10915	1234678-HpCDD	35822-46-9	0.709	JBQ	9.78	0.111	1
10915	OCDD	3268-87-9	3.50	JB	19.6	0.152	1
10915	2378-TCDF	51207-31-9	0.119	JQ	1.96	0.116	1
10915	12378-PeCDF	57117-41-6	0.471	JBQ	9.78	0.0806	1
10915	23478-PeCDF	57117-31-4	0.621	JB	9.78	0.0727	1
10915	123478-HxCDF	70648-26-9	0.487	JB	9.78	0.0936	1
10915	123678-HxCDF	57117-44-9	0.596	JB	9.78	0.0938	1
10915	123789-HxCDF	72918-21-9	0.600	JBQ	9.78	0.0824	1
10915	234678-HxCDF	60851-34-5	0.567	JB	9.78	0.0853	1
10915	1234678-HpCDF	67562-39-4	0.704	JBQ	9.78	0.0530	1
10915	1234789-HpCDF	55673-89-7	0.626	JBQ	9.78	0.0674	1
10915	OCDF	39001-02-0	1.75	JB	19.6	0.102	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	0.397				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	86	25 - 181
13C12-123478-HxCDD	92	32 - 141
13C12-123678-HxCDD	95	28 - 130
13C12-123789-HxCDD	92	28 - 130
13C12-1234678-HpCDD	94	23 - 140
13C12-OCDD	84	17 - 157
13C12-2378-TCDF	72	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	88	21 - 178
13C12-123478-HxCDF	91	26 - 152
13C12-123678-HxCDF	92	26 - 123
13C12-234678-HxCDF	93	28 - 136
13C12-123789-HxCDF	107	29 - 147
13C12-1234678-HpCDF	101	28 - 143
13C12-1234789-HpCDF	89	26 - 138
13C12-OCDF	85	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: EB2-052214 Water
SSFL Phase 3 Subarea 8/NBZ

LL Sample # WW 7475818
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 15:30 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB222 SDG#: PH196-02EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: EB2-052214 Water
SSFL Phase 3 Subarea 8/NBZ

LL Sample # WW 7475818
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 15:30 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB222 SDG#: PH196-02EB

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA
The temperature of the temperature blank bottle(s) upon receipt at the lab was 15.3 C using a digital thermometer. The sample bottles were then measured using an IR thermometer and were recorded at 13.3-16.3 C.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14144WAN026	06/03/2014 09:55	Brian K Graham	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	14144WAN026	05/27/2014 10:30	Anna E Stager	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14149A94A	05/30/2014 01:03	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14149A94A	05/30/2014 01:03	Miranda P Tillinghast	1
13022	19b Formaldehyde 8315A	SW-846 8315A	1	141430009A	05/25/2014 20:38	James H Place	1
10589	22b Pesticides by EPA 8081B	SW-846 8081B	1	141470014A	05/29/2014 08:01	Lisa A Reinert	1
13092	21b PCBs and PCTs 8082A	SW-846 8082A	1	141480020A	05/29/2014 18:42	Monica M Souders	1
13093	PCB/PCT Waters Update IV	SW-846 3510C	1	141480020A	05/28/2014 21:30	Karen L Beyer	1
11120	Pesticide Waters Update IV Ext	SW-846 3510C	1	141470014A	05/27/2014 16:00	Seth A Farrier	1
01013	Formaldehyde Extraction	SW-846 8315A	1	141430009A	05/24/2014 12:30	David V Hershey Jr	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141440025A	05/28/2014 00:46	Heather E Williams	1
13205	10b TPH-DRO (w/Si Gel)	SW-846 8015B modified	1	141440024A	05/28/2014 12:40	Heather E Williams	1
13212	EFH Water Ext. w/SiGel	SW-846 3510C	1	141440024A	05/27/2014 08:00	Kerrie A Freeburn	1
11203	EFH Waters Extraction	SW-846 3510C	1	141440025A	05/27/2014 08:00	Kerrie A Freeburn	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14153002	06/05/2014 05:29	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B October 1994	1	14153002	06/02/2014 10:35	Brett M Weidman	1
01743	Aluminum	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1
07044	Antimony	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1
07046	Barium	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1
07047	Beryllium	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1
08014	Boron	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1
01750	Calcium	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1
07051	Chromium	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1
07052	Cobalt	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1
07053	Copper	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1
01754	Iron	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1
07055	Lead	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-052214 Water
SSFL Phase 3 Subarea 8/NBZ

LL Sample # WW 7475818
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 15:30 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB222 SDG#: PH196-02EB

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01756	Lithium	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1
07058	Manganese	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1
07060	Molybdenum	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1
07061	Nickel	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1
10143	Phosphorus	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1
01762	Potassium	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1
01767	Sodium	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1
07069	Tin	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1
07070	Titanium	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1
07072	Zinc	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1
10144	Zirconium	SW-846 6010C	1	141480635002	05/29/2014 19:14	Katlin N Cataldi	1
06041	Selenium	SW-846 6020A	1	141480639002B	05/29/2014 22:52	John P Hook	1
06042	Silver	SW-846 6020A	1	141480639002A	05/29/2014 22:52	John P Hook	1
06044	Strontium	SW-846 6020A	1	141480639002A	05/29/2014 22:52	John P Hook	1
06045	Thallium	SW-846 6020A	1	141480639002A	05/29/2014 22:52	John P Hook	1
00259	3b Mercury 7470A	SW-846 7470A	1	141475713004	05/29/2014 08:40	Damary Valentin	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	141480635002	05/29/2014 10:10	Micaela L Dishong	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	141480639002	05/29/2014 09:22	Micaela L Dishong	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	141475713004	05/28/2014 09:00	James L Mertz	1
12152	28b pH (9040B and 9040C)	SW-846 9040C	1	14147002104A	05/27/2014 21:59	Michele L Graham	1

*=This limit was used in the evaluation of the final result

Sample Description: TB1-052214 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7475819
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 08:00

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB122 SDG#: PH196-03TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14149A94A	05/30/2014 01:28	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14149A94A	05/30/2014 01:28	Miranda P Tillinghast	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-628-SA8-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7475820
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 08:20 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62800 SDG#: PH196-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	4.2	J	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	27		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	51		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	3.9	J	5.2	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	5.5	J	10	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
	The reverse surrogate, capric acid, is present at <1%.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.4		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141470033A	05/29/2014 19:19	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141470034A	05/30/2014 20:30	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141470034A	05/28/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141470033A	05/28/2014 11:00	William H Saadeh	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162402A	05/28/2014 20:13	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-628-SA8-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7475821
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 08:30 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62840 SDG#: PH196-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	25.77
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.6	U	5.6	2.2	1
12952	EFH (C15-C20)	n.a.	5.6	U	5.6	2.2	1
12952	EFH (C21-C30)	n.a.	15		5.6	2.2	1
12952	EFH (C30-C40)	n.a.	28		11	4.4	1
12952	EFH (C8-C11)	n.a.	5.6	U	5.6	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.6	U	5.6	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.6	U	5.6	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	3.7	J	5.6	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	4.6	J	11	4.4	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.6	U	5.6	2.2	1
	The reverse surrogate, capric acid, is present at <1%.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	10.3		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147C16A	05/29/2014 21:20	Marie D Beamenderfer	25.77
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414334607	05/23/2014 19:41	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414334607	05/23/2014 19:41	Lisa J Cooke	n.a.
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141470033A	05/29/2014 19:41	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141470034A	05/30/2014 20:52	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141470034A	05/28/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141470033A	05/28/2014 11:00	William H Saadeh	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162402A	05/28/2014 20:13	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-628-SA8-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7475822
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 08:52 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62890 SDG#: PH196-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.71	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.71	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.71	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.71	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.71	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.71	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.4	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.4	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.71	1
12969	Diethylphthalate	84-66-2	19	U	19	6.4	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.4	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	J	19	6.4	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.71	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.71	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.71	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.71	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.71	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.71	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.71	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.4	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.71	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.71	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2	24.41
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	10	1
13099	Aroclor 5442	12642-23-8	35	U	35	10	1
13099	Aroclor 5460	11126-42-4	35	U	35	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1

For all QC parameters which are outside project defined limits,

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-628-SA8-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7475822
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 08:52 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62890 SDG#: PH196-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	but within the laboratory statistical limits, no corrective action is taken.						
GC Petroleum Hydrocarbons		**SW-846 8015B modified**	**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C21-C30)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.3	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.3	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
	The reverse surrogate, capric acid, is present at <1%.						
Metals		**SW-846 6010C**	**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	21,900		42.2	7.61	1
06944	Antimony	7440-36-0	4.22	U	4.22	0.781	1
06935	Arsenic	7440-38-2	6.90		4.22	0.739	1
06946	Barium	7440-39-3	88.8		1.06	0.0348	1
06947	Beryllium	7440-41-7	0.959	J	1.06	0.0707	1
07914	Boron	7440-42-8	10.8		10.6	0.887	1
06949	Cadmium	7440-43-9	0.339	J	1.06	0.0802	1
01650	Calcium	7440-70-2	18,800		21.1	3.53	1
06951	Chromium	7440-47-3	28.9		3.17	0.169	1
06952	Cobalt	7440-48-4	7.68		1.06	0.104	1
06953	Copper	7440-50-8	15.7		2.11	0.306	1
01654	Iron	7439-89-6	28,100		42.2	3.82	1
06955	Lead	7439-92-1	7.92		3.17	0.528	1
01656	Lithium	7439-93-2	25.1		4.2	0.36	1
01657	Magnesium	7439-95-4	6,390		10.6	1.76	1
06958	Manganese	7439-96-5	400		1.06	0.0876	1
06960	Molybdenum	7439-98-7	0.334	J	2.11	0.179	1
06961	Nickel	7440-02-0	15.2		2.11	0.137	1
10145	Phosphorus	7723-14-0	341		10.6	3.05	1
01662	Potassium	7440-09-7	3,800		106	8.80	1
01667	Sodium	7440-23-5	112		106	17.6	1
06969	Tin	7440-31-5	2.99	J	10.6	0.232	1
06970	Titanium	7440-32-6	1,100		1.06	0.179	1
06971	Vanadium	7440-62-2	53.6		1.06	0.137	1
06972	Zinc	7440-66-6	67.3		4.22	0.211	1
10146	Zirconium	7440-67-7	4.90	J	5.28	0.887	1
		SW-846 6020A	**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.307	J	0.422	0.106	2
06142	Silver	7440-22-4	0.0277	J	0.211	0.0274	2
06144	Strontium	7440-24-6	38.1		0.422	0.0718	2
06145	Thallium	7440-28-0	0.297		0.211	0.0317	2
		SW-846 7471B	**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-628-SA8-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7475822
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 08:52 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62890 SDG#: PH196-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 7471B**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0176 U	0.0176	0.0105	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 22.1 C.	n.a.	7.98	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	6.2	0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14155SLA026	06/06/2014 04:25	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	14155SLA026	06/05/2014 02:15	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147C16A	05/30/2014 01:06	Marie D Beamenderfer	24.41
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414334607	05/23/2014 19:42	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414334607	05/23/2014 19:42	Lisa J Cooke	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440035A	05/28/2014 10:54	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440035A	05/27/2014 06:30	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141470033A	05/28/2014 19:49	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141470034A	05/30/2014 21:13	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141470034A	05/28/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141470033A	05/28/2014 11:00	William H Saadeh	1
01643	Aluminum	SW-846 6010C	1	141490637001	06/02/2014 09:43	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141490637001	06/02/2014 09:43	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141490637001	06/02/2014 09:43	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141490637001	06/02/2014 09:43	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141490637001	06/02/2014 09:43	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141490637001	06/02/2014 09:43	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141490637001	06/02/2014 09:43	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-628-SA8-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7475822
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 08:52 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62890 SDG#: PH196-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01650	Calcium	SW-846 6010C	1	141490637001	06/02/2014 09:43	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141490637001	06/02/2014 09:43	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141490637001	06/02/2014 09:43	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141490637001	06/02/2014 09:43	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141490637001	06/02/2014 09:43	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141490637001	06/02/2014 09:43	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141490637001	06/02/2014 09:43	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141490637001	06/02/2014 09:43	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141490637001	06/02/2014 09:43	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141490637001	06/02/2014 09:43	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141490637001	06/02/2014 09:43	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141490637001	06/02/2014 09:43	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141490637001	06/02/2014 09:43	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141490637001	06/02/2014 09:43	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141490637001	06/02/2014 09:43	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141490637001	06/02/2014 22:34	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141490637001	06/02/2014 22:34	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141490637001	06/02/2014 09:43	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141490637001	06/02/2014 22:34	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141490637001B	06/02/2014 14:35	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141490637001A	06/02/2014 14:35	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141490637001A	06/02/2014 14:35	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141490637001A	06/02/2014 14:35	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638002	06/04/2014 20:39	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141490637001	06/01/2014 22:20	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638002	06/02/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14144039401A	05/24/2014 10:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162402A	05/28/2014 20:13	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-628-SA8-SB-14.0-15.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7475823
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 09:20 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62814 SDG#: PH196-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.71	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.71	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.71	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.71	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.71	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.71	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.4	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.4	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.71	1
12969	Diethylphthalate	84-66-2	19	U	19	6.4	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.4	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	14	J	19	6.4	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.71	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.71	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.71	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.71	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.71	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.71	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.71	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.4	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.71	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.71	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.3	U	1.3	0.3	29.62
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	10	1
13099	Aroclor 5442	12642-23-8	35	U	35	10	1
13099	Aroclor 5460	11126-42-4	35	U	35	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1

For all QC parameters which are outside project defined limits,

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-628-SA8-SB-14.0-15.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7475823
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 09:20 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62814 SDG#: PH196-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	but within the laboratory statistical limits, no corrective action is taken.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C21-C30)	n.a.	4.1	J	5.3	2.1	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.3	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	2.4	J	5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.3	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
	The reverse surrogate, capric acid, is present at <1%.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	18,600		41.3	7.45	1
06944	Antimony	7440-36-0	4.13	U	4.13	0.764	1
06935	Arsenic	7440-38-2	7.54		4.13	0.723	1
06946	Barium	7440-39-3	81.4		1.03	0.0341	1
06947	Beryllium	7440-41-7	0.857	J	1.03	0.0692	1
07914	Boron	7440-42-8	10.5		10.3	0.868	1
06949	Cadmium	7440-43-9	0.367	J	1.03	0.0785	1
01650	Calcium	7440-70-2	17,000		20.7	3.45	1
06951	Chromium	7440-47-3	26.2		3.10	0.165	1
06952	Cobalt	7440-48-4	7.02		1.03	0.102	1
06953	Copper	7440-50-8	12.5		2.07	0.300	1
01654	Iron	7439-89-6	26,200		41.3	3.74	1
06955	Lead	7439-92-1	7.02		3.10	0.516	1
01656	Lithium	7439-93-2	26.2		4.1	0.35	1
01657	Magnesium	7439-95-4	6,180		10.3	1.72	1
06958	Manganese	7439-96-5	408		1.03	0.0857	1
06960	Molybdenum	7439-98-7	0.479	J	2.07	0.176	1
06961	Nickel	7440-02-0	14.3		2.07	0.134	1
10145	Phosphorus	7723-14-0	398		10.3	2.98	1
01662	Potassium	7440-09-7	3,920		103	8.61	1
01667	Sodium	7440-23-5	265		103	17.2	1
06969	Tin	7440-31-5	3.06	J	10.3	0.227	1
06970	Titanium	7440-32-6	1,190		1.03	0.176	1
06971	Vanadium	7440-62-2	50.2		1.03	0.134	1
06972	Zinc	7440-66-6	66.0		4.13	0.207	1
10146	Zirconium	7440-67-7	5.15	J	5.16	0.868	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.273	J	0.413	0.103	2
06142	Silver	7440-22-4	0.0359	J	0.207	0.0269	2
06144	Strontium	7440-24-6	35.6		0.413	0.0702	2
06145	Thallium	7440-28-0	0.287		0.207	0.0310	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-628-SA8-SB-14.0-15.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7475823
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 09:20 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62814 SDG#: PH196-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 7471B**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0170 U	0.0170	0.0102	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 22.2 C.	n.a.	8.36	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	6.0	0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14155SLA026	06/06/2014 04:57	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	14155SLA026	06/05/2014 02:15	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147C16A	05/30/2014 01:44	Marie D Beamenderfer	29.62
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414334607	05/23/2014 19:43	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414334607	05/23/2014 19:43	Lisa J Cooke	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440035A	05/28/2014 11:13	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440035A	05/27/2014 06:30	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141470033A	05/29/2014 18:57	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141470034A	05/30/2014 21:34	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141470034A	05/28/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141470033A	05/28/2014 11:00	William H Saadeh	1
01643	Aluminum	SW-846 6010C	1	141490637001	06/02/2014 09:47	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141490637001	06/02/2014 09:47	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141490637001	06/02/2014 09:47	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141490637001	06/02/2014 09:47	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141490637001	06/02/2014 09:47	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141490637001	06/02/2014 09:47	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141490637001	06/02/2014 09:47	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-628-SA8-SB-14.0-15.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7475823
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 09:20 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62814 SDG#: PH196-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01650	Calcium	SW-846 6010C	1	141490637001	06/02/2014 09:47	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141490637001	06/02/2014 09:47	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141490637001	06/02/2014 09:47	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141490637001	06/02/2014 09:47	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141490637001	06/02/2014 09:47	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141490637001	06/02/2014 09:47	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141490637001	06/02/2014 09:47	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141490637001	06/02/2014 09:47	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141490637001	06/02/2014 09:47	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141490637001	06/02/2014 09:47	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141490637001	06/02/2014 09:47	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141490637001	06/02/2014 09:47	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141490637001	06/02/2014 09:47	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141490637001	06/02/2014 09:47	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141490637001	06/02/2014 09:47	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141490637001	06/02/2014 22:38	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141490637001	06/02/2014 22:38	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141490637001	06/02/2014 09:47	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141490637001	06/02/2014 09:47	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141490637001B	06/02/2014 14:37	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141490637001A	06/02/2014 14:37	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141490637001A	06/02/2014 14:37	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141490637001A	06/02/2014 14:37	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638002	06/04/2014 20:41	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141490637001	06/01/2014 22:20	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638002	06/02/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14144039401A	05/24/2014 10:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162402A	05/28/2014 20:13	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-578-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7475824
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 11:26 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57800 SDG#: PH196-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.72	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.72	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.72	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.72	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.72	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.72	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.5	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.5	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.72	1
12969	Diethylphthalate	84-66-2	20	U	20	6.5	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.5	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20	U	20	6.5	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.72	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.72	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.72	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.72	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.72	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.72	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.72	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.5	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.72	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.72	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.4	1
13099	PCB-1242	53469-21-9	18	U	18	4.4	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.7	1
13099	PCB-1260	11096-82-5	18	U	18	4.2	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1

For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.

GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-578-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7475824
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 11:26 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57800 SDG#: PH196-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.4	U	5.4	2.1	1
12952	EFH (C15-C20)	n.a.	5.4	U	5.4	2.1	1
12952	EFH (C21-C30)	n.a.	5.4	U	5.4	2.1	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.3	1
12952	EFH (C8-C11)	n.a.	5.4	U	5.4	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.4	U	5.4	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.4	U	5.4	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.4	U	5.4	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.3	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.4	U	5.4	2.1	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	26,800		42.1	7.59	1
06944	Antimony	7440-36-0	4.21	U	4.21	0.779	1
06935	Arsenic	7440-38-2	9.59		4.21	0.737	1
06946	Barium	7440-39-3	112		1.05	0.0347	1
06947	Beryllium	7440-41-7	1.38		1.05	0.0706	1
07914	Boron	7440-42-8	7.46	J	10.5	0.885	1
06949	Cadmium	7440-43-9	0.100	J	1.05	0.0800	1
01650	Calcium	7440-70-2	3,590		21.1	3.52	1
06951	Chromium	7440-47-3	29.6		3.16	0.168	1
06952	Cobalt	7440-48-4	6.92		1.05	0.104	1
06953	Copper	7440-50-8	18.9		2.11	0.305	1
01654	Iron	7439-89-6	36,900		211	19.1	5
06955	Lead	7439-92-1	12.2		3.16	0.527	1
01656	Lithium	7439-93-2	41.4		4.2	0.36	1
01657	Magnesium	7439-95-4	7,340		10.5	1.76	1
06958	Manganese	7439-96-5	239		1.05	0.0874	1
06960	Molybdenum	7439-98-7	0.544	J	2.11	0.179	1
06961	Nickel	7440-02-0	13.8		2.11	0.137	1
10145	Phosphorus	7723-14-0	184		10.5	3.04	1
01662	Potassium	7440-09-7	2,460		105	8.78	1
01667	Sodium	7440-23-5	156		105	17.6	1
06969	Tin	7440-31-5	4.40	J	10.5	0.232	1
06970	Titanium	7440-32-6	1,230		1.05	0.179	1
06971	Vanadium	7440-62-2	59.4		1.05	0.137	1
06972	Zinc	7440-66-6	88.5		4.21	0.211	1
10146	Zirconium	7440-67-7	4.54	J	5.27	0.885	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.660		0.421	0.105	2
06142	Silver	7440-22-4	0.211	U	0.211	0.0274	2
06144	Strontium	7440-24-6	21.3		0.421	0.0716	2
06145	Thallium	7440-28-0	0.335		0.211	0.0316	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0117	J	0.0174	0.0105	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-578-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7475824
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 11:26 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57800 SDG#: PH196-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 22.2 C.	n.a.	7.48	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	7.8	0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14155SLA026	06/06/2014 05:30	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	14155SLA026	06/05/2014 02:15	Sherry L Morrow	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440035A	05/28/2014 11:31	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440035A	05/27/2014 06:30	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141470033A	05/28/2014 20:32	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141470034A	05/30/2014 22:18	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141470034A	05/28/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141470033A	05/28/2014 11:00	William H Saadeh	1
01643	Aluminum	SW-846 6010C	1	141490637001	06/02/2014 09:51	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141490637001	06/02/2014 09:51	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141490637001	06/02/2014 09:51	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141490637001	06/02/2014 09:51	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141490637001	06/02/2014 09:51	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141490637001	06/02/2014 09:51	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141490637001	06/02/2014 09:51	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141490637001	06/02/2014 09:51	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141490637001	06/02/2014 09:51	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141490637001	06/02/2014 09:51	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141490637001	06/02/2014 09:51	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141490637001	06/02/2014 22:47	Katlin N Cataldi	5
06955	Lead	SW-846 6010C	1	141490637001	06/02/2014 09:51	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141490637001	06/02/2014 09:51	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141490637001	06/02/2014 09:51	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-578-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7475824
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 11:26 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57800 SDG#: PH196-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06958	Manganese	SW-846 6010C	1	141490637001	06/02/2014 09:51	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141490637001	06/02/2014 09:51	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141490637001	06/02/2014 09:51	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141490637001	06/02/2014 09:51	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141490637001	06/02/2014 09:51	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141490637001	06/02/2014 09:51	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141490637001	06/02/2014 09:51	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141490637001	06/02/2014 22:42	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141490637001	06/02/2014 22:42	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141490637001	06/02/2014 09:51	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141490637001	06/02/2014 22:42	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141490637001B	06/05/2014 07:20	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141490637001A	06/02/2014 14:40	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141490637001A	06/02/2014 14:40	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141490637001A	06/02/2014 14:40	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638002	06/04/2014 20:43	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141490637001	06/01/2014 22:20	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638002	06/02/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14144039401A	05/24/2014 10:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162402A	05/28/2014 20:13	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-581-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7475825
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:10 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58100 SDG#: PH196-09

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	2.6	J	5.3	2.1	1
12952	EFH (C21-C30)	n.a.	8.6		5.3	2.1	1
12952	EFH (C30-C40)	n.a.	21		11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	26,700		41.0	7.39	1
06944	Antimony	7440-36-0	4.10	U	4.10	0.759	1
06935	Arsenic	7440-38-2	11.7		4.10	0.718	1
06946	Barium	7440-39-3	114		1.03	0.0338	1
06947	Beryllium	7440-41-7	1.33		1.03	0.0687	1
07914	Boron	7440-42-8	10.6		10.3	0.861	1
06949	Cadmium	7440-43-9	0.166	J	1.03	0.0779	1
01650	Calcium	7440-70-2	5,300		20.5	3.42	1
06951	Chromium	7440-47-3	33.3		3.08	0.164	1
06952	Cobalt	7440-48-4	10.6		1.03	0.101	1
06953	Copper	7440-50-8	21.9		2.05	0.297	1
01654	Iron	7439-89-6	36,600		205	18.6	5
06955	Lead	7439-92-1	12.0		3.08	0.513	1
01656	Lithium	7439-93-2	45.0		4.1	0.35	1
01657	Magnesium	7439-95-4	8,620		10.3	1.71	1
06958	Manganese	7439-96-5	423		1.03	0.0851	1
06960	Molybdenum	7439-98-7	0.318	J	2.05	0.174	1
06961	Nickel	7440-02-0	19.1		2.05	0.133	1
10145	Phosphorus	7723-14-0	594		10.3	2.96	1
01662	Potassium	7440-09-7	4,900		103	8.55	1
01667	Sodium	7440-23-5	119		103	17.1	1
06969	Tin	7440-31-5	4.04	J	10.3	0.226	1
06970	Titanium	7440-32-6	1,680		1.03	0.174	1
06971	Vanadium	7440-62-2	67.6		1.03	0.133	1
06972	Zinc	7440-66-6	99.0		4.10	0.205	1
10146	Zirconium	7440-67-7	7.09		5.13	0.861	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.606		0.410	0.103	2
06142	Silver	7440-22-4	0.128	J	0.205	0.0267	2
06144	Strontium	7440-24-6	23.8		0.410	0.0697	2
06145	Thallium	7440-28-0	0.425		0.205	0.0308	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0122	J	0.0178	0.0107	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-581-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7475825
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:10 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58100 SDG#: PH196-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 22 C.	n.a.	7.18	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	6.2	0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141470033A	05/29/2014	20:02	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141470034A	05/30/2014	22:39	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141470034A	05/28/2014	11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141470033A	05/28/2014	11:00	William H Saadeh	1
01643	Aluminum	SW-846 6010C	1	141490637001	06/02/2014	09:55	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141490637001	06/02/2014	09:55	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141490637001	06/02/2014	09:55	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141490637001	06/02/2014	09:55	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141490637001	06/02/2014	09:55	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141490637001	06/02/2014	09:55	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141490637001	06/02/2014	09:55	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141490637001	06/02/2014	09:55	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141490637001	06/02/2014	09:55	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141490637001	06/02/2014	09:55	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141490637001	06/02/2014	09:55	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141490637001	06/02/2014	22:55	Katlin N Cataldi	5
06955	Lead	SW-846 6010C	1	141490637001	06/02/2014	09:55	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141490637001	06/02/2014	09:55	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141490637001	06/02/2014	09:55	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141490637001	06/02/2014	09:55	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141490637001	06/02/2014	09:55	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141490637001	06/02/2014	09:55	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141490637001	06/02/2014	09:55	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141490637001	06/02/2014	09:55	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-581-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7475825
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:10 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58100 SDG#: PH196-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01667	Sodium	SW-846 6010C	1	141490637001	06/02/2014 09:55	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141490637001	06/02/2014 09:55	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141490637001	06/02/2014 22:50	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141490637001	06/02/2014 22:50	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141490637001	06/02/2014 09:55	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141490637001	06/02/2014 22:50	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141490637001B	06/02/2014 14:42	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141490637001A	06/02/2014 14:42	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141490637001A	06/02/2014 14:42	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141490637001A	06/02/2014 14:42	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638002	06/04/2014 20:45	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141490637001	06/01/2014 22:20	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638002	06/02/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14144039401A	05/24/2014 10:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162402A	05/28/2014 20:13	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-581-NBZ-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7475826
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:20 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58140 SDG#: PH196-10

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	24.22
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C21-C30)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.4	1
12952	EFH (C8-C11)	n.a.	5.5	U	5.5	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.4	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	30,600		42.9	7.73	1
06944	Antimony	7440-36-0	4.29	U	4.29	0.793	1
06935	Arsenic	7440-38-2	10.4		4.29	0.750	1
06946	Barium	7440-39-3	137		1.07	0.0354	1
06947	Beryllium	7440-41-7	1.50		1.07	0.0718	1
07914	Boron	7440-42-8	10.5	J	10.7	0.900	1
06949	Cadmium	7440-43-9	0.261	J	1.07	0.0814	1
01650	Calcium	7440-70-2	4,620		21.4	3.58	1
06951	Chromium	7440-47-3	32.6		3.21	0.171	1
06952	Cobalt	7440-48-4	12.9		1.07	0.106	1
06953	Copper	7440-50-8	21.1		2.14	0.311	1
01654	Iron	7439-89-6	40,900		214	19.4	5
06955	Lead	7439-92-1	14.3		3.21	0.536	1
01656	Lithium	7439-93-2	40.4		4.3	0.36	1
01657	Magnesium	7439-95-4	8,320		10.7	1.79	1
06958	Manganese	7439-96-5	475		1.07	0.0889	1
06960	Molybdenum	7439-98-7	0.437	J	2.14	0.182	1
06961	Nickel	7440-02-0	19.8		2.14	0.139	1
10145	Phosphorus	7723-14-0	447		10.7	3.10	1
01662	Potassium	7440-09-7	5,260		107	8.94	1
01667	Sodium	7440-23-5	289		107	17.9	1
06969	Tin	7440-31-5	4.40	J	10.7	0.236	1
06970	Titanium	7440-32-6	1,540		1.07	0.182	1
06971	Vanadium	7440-62-2	70.7		1.07	0.139	1
06972	Zinc	7440-66-6	98.2		4.29	0.214	1
10146	Zirconium	7440-67-7	6.94		5.36	0.900	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.672		0.429	0.107	2
06142	Silver	7440-22-4	0.0997	J	0.214	0.0279	2
06144	Strontium	7440-24-6	29.2		0.429	0.0729	2

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-581-NBZ-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7475826
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:20 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58140 SDG#: PH196-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6020A**		**mg/kg**	**mg/kg**	**mg/kg**	
06145	Thallium	7440-28-0	0.515	0.214	0.0321	2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0178 U	0.0178	0.0107	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.56	0.0100	0.0100	1
	The pH was measured in water at 22.4 C.					
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	9.4	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147C16A	05/30/2014 02:22	Marie D Beamenderfer	24.22
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414334607	05/23/2014 19:44	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414334607	05/23/2014 19:45	Lisa J Cooke	n.a.
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141470033A	05/28/2014 20:54	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141470034A	05/30/2014 23:01	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141470034A	05/28/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141470033A	05/28/2014 11:00	William H Saadeh	1
01643	Aluminum	SW-846 6010C	1	141490637001	06/02/2014 09:58	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141490637001	06/02/2014 09:58	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141490637001	06/02/2014 09:58	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141490637001	06/02/2014 09:58	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141490637001	06/02/2014 09:58	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141490637001	06/02/2014 09:58	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141490637001	06/02/2014 09:58	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141490637001	06/02/2014 09:58	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141490637001	06/02/2014 09:58	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-581-NBZ-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7475826
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:20 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58140 SDG#: PH196-10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06952	Cobalt	SW-846 6010C	1	141490637001	06/02/2014 09:58	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141490637001	06/02/2014 09:58	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141490637001	06/02/2014 23:03	Katlin N Cataldi	5
06955	Lead	SW-846 6010C	1	141490637001	06/02/2014 09:58	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141490637001	06/02/2014 09:58	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141490637001	06/02/2014 09:58	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141490637001	06/02/2014 09:58	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141490637001	06/02/2014 09:58	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141490637001	06/02/2014 09:58	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141490637001	06/02/2014 09:58	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141490637001	06/02/2014 09:58	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141490637001	06/02/2014 09:58	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141490637001	06/02/2014 09:58	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141490637001	06/02/2014 22:58	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141490637001	06/02/2014 22:58	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141490637001	06/02/2014 09:58	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141490637001	06/02/2014 22:58	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141490637001B	06/02/2014 14:44	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141490637001A	06/02/2014 14:44	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141490637001A	06/02/2014 14:44	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141490637001A	06/02/2014 14:44	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638002	06/04/2014 20:47	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141490637001	06/01/2014 22:20	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638002	06/02/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14144039401B	05/24/2014 10:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162402A	05/28/2014 20:13	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-581-NBZ-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7475827
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:30 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58190 SDG#: PH196-11

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.9	U	1.9	0.76	1
12969	Acenaphthylene	208-96-8	1.9	U	1.9	0.38	1
12969	Anthracene	120-12-7	1.9	U	1.9	0.38	1
12969	Benzo(a)anthracene	56-55-3	1.9	U	1.9	0.76	1
12969	Benzo(a)pyrene	50-32-8	1.9	U	1.9	0.76	1
12969	Benzo(b)fluoranthene	205-99-2	1.9	U	1.9	0.76	1
12969	Benzo(e)pyrene	192-97-2	19	U	19	3.8	1
12969	Benzo(g,h,i)perylene	191-24-2	1.9	U	1.9	0.76	1
12969	Benzo(k)fluoranthene	207-08-9	1.9	U	1.9	0.76	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.8	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.8	1
12969	Chrysene	218-01-9	1.9	U	1.9	0.38	1
12969	Dibenz(a,h)anthracene	53-70-3	1.9	U	1.9	0.76	1
12969	Diethylphthalate	84-66-2	20	U	20	6.8	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.8	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20	U	20	6.8	1
12969	Fluoranthene	206-44-0	1.9	U	1.9	0.76	1
12969	Fluorene	86-73-7	1.9	U	1.9	0.76	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.9	U	1.9	0.76	1
12969	1-Methylnaphthalene	90-12-0	1.9	U	1.9	0.76	1
12969	2-Methylnaphthalene	91-57-6	1.9	U	1.9	0.76	1
12969	Naphthalene	91-20-3	1.9	U	1.9	0.76	1
12969	N-Nitrosodimethylamine	62-75-9	1.9	U	1.9	0.76	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.8	1
12969	Phenanthrene	85-01-8	1.9	U	1.9	0.76	1
12969	Pyrene	129-00-0	1.9	U	1.9	0.76	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	23.5
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	37	U	37	11	1
13099	Aroclor 5442	12642-23-8	37	U	37	11	1
13099	Aroclor 5460	11126-42-4	37	U	37	11	1
13099	PCB-1016	12674-11-2	19	U	19	3.7	1
13099	PCB-1221	11104-28-2	19	U	19	5.7	1
13099	PCB-1232	11141-16-5	19	U	19	4.6	1
13099	PCB-1242	53469-21-9	19	U	19	4.6	1
13099	PCB-1248	12672-29-6	19	U	19	3.7	1
13099	PCB-1254	11097-69-1	19	U	19	4.9	1
13099	PCB-1260	11096-82-5	19	U	19	4.3	1
13099	PCB-1262	37324-23-5	19	U	19	3.7	1
13099	PCB-1268	11100-14-4	19	U	19	3.7	1

For all QC parameters which are outside project defined limits,

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-581-NBZ-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7475827
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:30 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58190 SDG#: PH196-11

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	but within the laboratory statistical limits, no corrective action is taken.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.6	U	5.6	2.2	1
12952	EFH (C15-C20)	n.a.	5.6	U	5.6	2.2	1
12952	EFH (C21-C30)	n.a.	5.6	U	5.6	2.2	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.5	1
12952	EFH (C8-C11)	n.a.	5.6	U	5.6	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.6	U	5.6	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.6	U	5.6	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.6	U	5.6	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.5	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.6	U	5.6	2.2	1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	29,400		44.9	8.08	1
06944	Antimony	7440-36-0	4.49	U	4.49	0.830	1
06935	Arsenic	7440-38-2	14.4		4.49	0.785	1
06946	Barium	7440-39-3	164		1.12	0.0370	1
06947	Beryllium	7440-41-7	2.19		1.12	0.0751	1
07914	Boron	7440-42-8	11.4		11.2	0.942	1
06949	Cadmium	7440-43-9	1.12	U	1.12	0.0852	1
01650	Calcium	7440-70-2	3,990		22.4	3.75	1
06951	Chromium	7440-47-3	37.7		3.36	0.179	1
06952	Cobalt	7440-48-4	9.35		1.12	0.111	1
06953	Copper	7440-50-8	29.8		2.24	0.325	1
01654	Iron	7439-89-6	60,400		224	20.3	5
06955	Lead	7439-92-1	18.9		3.36	0.561	1
01656	Lithium	7439-93-2	49.5		4.5	0.38	1
01657	Magnesium	7439-95-4	9,500		11.2	1.87	1
06958	Manganese	7439-96-5	335		1.12	0.0931	1
06960	Molybdenum	7439-98-7	0.457	J	2.24	0.191	1
06961	Nickel	7440-02-0	19.4		2.24	0.146	1
10145	Phosphorus	7723-14-0	714		11.2	3.24	1
01662	Potassium	7440-09-7	4,590		112	9.35	1
01667	Sodium	7440-23-5	658		112	18.7	1
06969	Tin	7440-31-5	4.60	J	11.2	0.247	1
06970	Titanium	7440-32-6	1,560		1.12	0.191	1
06971	Vanadium	7440-62-2	78.8		1.12	0.146	1
06972	Zinc	7440-66-6	120		4.49	0.224	1
10146	Zirconium	7440-67-7	8.27		5.61	0.942	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.980		0.449	0.112	2
06142	Silver	7440-22-4	0.0426	J	0.224	0.0292	2
06144	Strontium	7440-24-6	22.7		0.449	0.0762	2
06145	Thallium	7440-28-0	0.524		0.224	0.0336	2

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-581-NBZ-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7475827
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:30 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58190 SDG#: PH196-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 7471B**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0182 U	0.0182	0.0109	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 22 C.	n.a.	5.74	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	11.7	0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14155SLA026	06/06/2014 06:02	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	14155SLA026	06/05/2014 02:15	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147C16A	05/30/2014 03:00	Marie D Beamenderfer	23.5
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414334607	05/23/2014 19:46	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414334607	05/23/2014 19:46	Lisa J Cooke	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440035A	05/28/2014 11:50	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440035A	05/27/2014 06:30	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141470033A	05/28/2014 21:15	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141470034A	05/30/2014 23:22	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141470034A	05/28/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141470033A	05/28/2014 11:00	William H Saadeh	1
01643	Aluminum	SW-846 6010C	1	141490637001	06/02/2014 10:02	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141490637001	06/02/2014 10:02	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141490637001	06/02/2014 10:02	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141490637001	06/02/2014 10:02	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141490637001	06/02/2014 10:02	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141490637001	06/02/2014 10:02	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141490637001	06/02/2014 10:02	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-581-NBZ-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7475827
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:30 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58190 SDG#: PH196-11

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01650	Calcium	SW-846 6010C	1	141490637001	06/02/2014 10:02	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141490637001	06/02/2014 10:02	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141490637001	06/02/2014 10:02	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141490637001	06/02/2014 10:02	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141490637001	06/02/2014 23:19	Katlin N Cataldi	5
06955	Lead	SW-846 6010C	1	141490637001	06/02/2014 10:02	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141490637001	06/02/2014 10:02	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141490637001	06/02/2014 10:02	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141490637001	06/02/2014 10:02	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141490637001	06/02/2014 10:02	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141490637001	06/02/2014 10:02	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141490637001	06/02/2014 10:02	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141490637001	06/02/2014 10:02	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141490637001	06/02/2014 10:02	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141490637001	06/02/2014 10:02	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141490637001	06/02/2014 23:14	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141490637001	06/02/2014 23:14	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141490637001	06/02/2014 10:02	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141490637001	06/02/2014 23:14	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141490637001B	06/02/2014 14:46	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141490637001A	06/02/2014 14:46	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141490637001A	06/02/2014 14:46	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141490637001A	06/02/2014 14:46	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638002	06/04/2014 20:49	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141490637001	06/01/2014 22:20	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638002	06/02/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14144039401B	05/24/2014 10:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162402A	05/28/2014 20:13	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-581-NBZ-SB-13.0-14.0 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7475828
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:41 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

13581 SDG#: PH196-12*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.72	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.72	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.72	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.72	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.72	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.72	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.5	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.5	1
12969	Chrysene	218-01-9	0.38	J	1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.72	1
12969	Diethylphthalate	84-66-2	20	U	20	6.5	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.5	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20	U	20	6.5	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.72	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.72	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.72	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.72	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.72	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.72	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.72	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.5	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.72	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.72	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	25.72
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.5	1
13099	PCB-1232	11141-16-5	18	U	18	4.4	1
13099	PCB-1242	53469-21-9	18	U	18	4.4	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.7	1
13099	PCB-1260	11096-82-5	18	U	18	4.2	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1

For all QC parameters which are outside project defined limits,

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-581-NBZ-SB-13.0-14.0 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7475828
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:41 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

13581 SDG#: PH196-12*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	but within the laboratory statistical limits, no corrective action is taken.						
GC Petroleum Hydrocarbons		**SW-846 8015B modified**	**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.4	U	5.4	2.2	1
12952	EFH (C15-C20)	n.a.	5.4	U	5.4	2.2	1
12952	EFH (C21-C30)	n.a.	5.4	U	5.4	2.2	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.3	1
12952	EFH (C8-C11)	n.a.	5.4	U	5.4	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.3	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
	The reverse surrogate, capric acid, is present at <1%.						
Metals		**SW-846 6010C**	**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	28,100		43.0	7.76	1
06944	Antimony	7440-36-0	4.30	U	4.30	0.796	1
06935	Arsenic	7440-38-2	12.5		4.30	0.753	1
06946	Barium	7440-39-3	140		1.08	0.0355	1
06947	Beryllium	7440-41-7	1.63		1.08	0.0721	1
07914	Boron	7440-42-8	10.9		10.8	0.904	1
06949	Cadmium	7440-43-9	0.178	J	1.08	0.0818	1
01650	Calcium	7440-70-2	5,260		21.5	3.59	1
06951	Chromium	7440-47-3	39.2		3.23	0.172	1
06952	Cobalt	7440-48-4	12.9		1.08	0.107	1
06953	Copper	7440-50-8	27.9		2.15	0.312	1
01654	Iron	7439-89-6	42,100		215	19.5	5
06955	Lead	7439-92-1	17.8		3.23	0.538	1
01656	Lithium	7439-93-2	67.7		4.3	0.37	1
01657	Magnesium	7439-95-4	11,000		10.8	1.80	1
06958	Manganese	7439-96-5	487		1.08	0.0893	1
06960	Molybdenum	7439-98-7	0.320	J	2.15	0.183	1
06961	Nickel	7440-02-0	26.5		2.15	0.140	1
10145	Phosphorus	7723-14-0	776		10.8	3.11	1
01662	Potassium	7440-09-7	4,940		108	8.98	1
01667	Sodium	7440-23-5	512		108	18.0	1
06969	Tin	7440-31-5	4.54	J	10.8	0.237	1
06970	Titanium	7440-32-6	1,710		1.08	0.183	1
06971	Vanadium	7440-62-2	76.1		1.08	0.140	1
06972	Zinc	7440-66-6	124		4.30	0.215	1
10146	Zirconium	7440-67-7	9.28		5.38	0.904	1
		SW-846 6020A	**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.784		0.430	0.108	2
06142	Silver	7440-22-4	0.191	J	0.215	0.0280	2
06144	Strontium	7440-24-6	23.1		0.430	0.0732	2
06145	Thallium	7440-28-0	0.430		0.215	0.0323	2
		SW-846 7471B	**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-581-NBZ-SB-13.0-14.0 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7475828
LL Group # 1476822
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/22/2014 13:41 by RR

Submitted: 05/23/2014 09:50
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
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Fairfax VA 22030

13581 SDG#: PH196-12*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 7471B**		mg/kg	mg/kg	mg/kg	
00159	3a Mercury 7471A	7439-97-6	0.0173 J	0.0176	0.0106	1
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 21.5 C.	n.a.	7.38	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	8.0	0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14155SLA026	06/06/2014 06:34	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	14155SLA026	06/05/2014 02:15	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147C16A	05/30/2014 03:37	Marie D Beamenderfer	25.72
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414334607	05/23/2014 19:47	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414334607	05/23/2014 19:47	Lisa J Cooke	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141440035A	05/28/2014 12:09	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141440035A	05/27/2014 06:30	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141470033A	05/28/2014 21:37	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141470034A	05/30/2014 23:44	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141470034A	05/28/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141470033A	05/28/2014 11:00	William H Saadeh	1
01643	Aluminum	SW-846 6010C	1	141490637001	06/02/2014 10:06	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141490637001	06/02/2014 10:06	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141490637001	06/02/2014 10:06	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141490637001	06/02/2014 10:06	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141490637001	06/02/2014 10:06	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141490637001	06/02/2014 10:06	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141490637001	06/02/2014 10:06	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-581-NBZ-SB-13.0-14.0 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7475828
LL Group # 1476822
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13581 SDG#: PH196-12*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01650	Calcium	SW-846 6010C	1	141490637001	06/02/2014 10:06	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141490637001	06/02/2014 10:06	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141490637001	06/02/2014 10:06	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141490637001	06/02/2014 10:06	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141490637001	06/02/2014 23:27	Katlin N Cataldi	5
06955	Lead	SW-846 6010C	1	141490637001	06/02/2014 10:06	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141490637001	06/02/2014 10:06	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141490637001	06/02/2014 10:06	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141490637001	06/02/2014 10:06	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141490637001	06/02/2014 10:06	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141490637001	06/02/2014 10:06	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141490637001	06/02/2014 10:06	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141490637001	06/02/2014 10:06	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141490637001	06/02/2014 10:06	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141490637001	06/02/2014 10:06	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141490637001	06/02/2014 23:22	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141490637001	06/02/2014 23:22	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141490637001	06/02/2014 10:06	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141490637001	06/02/2014 23:22	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141490637001B	06/02/2014 14:49	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141490637001A	06/02/2014 14:49	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141490637001A	06/02/2014 14:49	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141490637001A	06/02/2014 14:49	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638002	06/04/2014 20:51	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141490637001	06/01/2014 22:20	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638002	06/02/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14144039401B	05/24/2014 10:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162402A	05/28/2014 20:13	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476822
Reported: 06/09/14 at 01:48 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: Y141471AA	Sample number(s): 7475817								
Acetone	20 U	20.	6	ug/l	78	84	43-149	7	30
Acrolein	100 U	100.	40	ug/l	94	89	52-129	4	30
Acrylonitrile	20 U	20.	4	ug/l	77	83	62-120	7	30
t-Amyl methyl ether	5 U	5.	0.5	ug/l	98	99	75-120	1	30
Benzene	5 U	5.	0.5	ug/l	104	105	78-120	1	30
Bromobenzene	5 U	5.	1	ug/l	103	103	80-120	0	30
Bromochloromethane	5 U	5.	1	ug/l	102	103	80-121	0	30
Bromodichloromethane	5 U	5.	0.5	ug/l	99	99	73-120	0	30
Bromoform	5 U	5.	0.5	ug/l	86	85	61-120	1	30
Bromomethane	5 U	5.	0.5	ug/l	104	105	58-120	1	30
2-Butanone	10 U	10.	3	ug/l	72	79	54-133	9	30
t-Butyl alcohol	50 U	50.	5	ug/l	97	103	75-120	7	30
n-Butylbenzene	5 U	5.	1	ug/l	100	100	68-120	0	30
sec-Butylbenzene	5 U	5.	1	ug/l	102	104	80-120	2	30
tert-Butylbenzene	5 U	5.	1	ug/l	100	103	73-120	3	30
Carbon Disulfide	5 U	5.	1	ug/l	69	68	58-126	2	30
Carbon Tetrachloride	5 U	5.	0.5	ug/l	107	109	74-130	2	30
Chlorobenzene	5 U	5.	0.5	ug/l	104	103	80-120	1	30
Chloroethane	5 U	5.	0.5	ug/l	89	89	56-120	1	30
2-Chloroethyl Vinyl Ether	10 U	10.	2	ug/l	102	103	54-126	1	30
Chloroform	5 U	5.	0.5	ug/l	106	107	80-122	1	30
1-Chlorohexane	5 U	5.	1	ug/l	104	105	80-120	1	30
Chloromethane	5 U	5.	0.5	ug/l	118	120	63-120	2	30
2-Chlorotoluene	5 U	5.	1	ug/l	100	101	80-120	1	30
4-Chlorotoluene	5 U	5.	1	ug/l	100	101	80-120	1	30
Chlorotrifluoroethene	5 U	5.	2	ug/l	46*	48	47-120	5	30
1,2-Dibromo-3-chloropropane	5 U	5.	2	ug/l	75	83	56-120	10	30
Dibromochloromethane	5 U	5.	0.5	ug/l	101	98	72-120	3	30
1,2-Dibromoethane	5 U	5.	0.5	ug/l	100	101	76-120	1	30
Dibromomethane	5 U	5.	0.5	ug/l	98	99	80-120	1	30
1,2-Dichlorobenzene	5 U	5.	1	ug/l	101	102	80-120	1	30
1,3-Dichlorobenzene	5 U	5.	1	ug/l	101	102	80-120	1	30
1,4-Dichlorobenzene	5 U	5.	1	ug/l	103	103	80-120	1	30
Dichlorodifluoromethane	5 U	5.	0.5	ug/l	115	116	48-132	1	30
1,1-Dichloroethane	5 U	5.	0.5	ug/l	98	99	80-120	1	30
1,2-Dichloroethane	5 U	5.	0.5	ug/l	106	106	65-135	0	30
1,1-Dichloroethene	5 U	5.	0.5	ug/l	112	113	76-124	1	30
cis-1,2-Dichloroethene	5 U	5.	0.5	ug/l	105	106	80-120	1	30
trans-1,2-Dichloroethene	5 U	5.	0.5	ug/l	116	118	80-120	2	30
1,2-Dichloropropane	5 U	5.	0.5	ug/l	101	101	80-120	0	30
1,3-Dichloropropane	5 U	5.	0.5	ug/l	99	99	80-120	0	30
2,2-Dichloropropane	5 U	5.	0.5	ug/l	104	104	67-124	1	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476822
Reported: 06/09/14 at 01:48 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/l	110	110	80-120	1	30
cis-1,3-Dichloropropene	5	U	5.	0.5	ug/l	96	96	80-120	0	30
trans-1,3-Dichloropropene	5	U	5.	0.5	ug/l	95	95	76-120	0	30
Ethyl t-butyl ether	5	U	5.	0.5	ug/l	97	98	74-120	1	30
Ethylbenzene	5	U	5.	0.5	ug/l	102	103	79-120	0	30
Freon 113	5	U	5.	2	ug/l	101	100	67-127	0	30
Freon 133a	5	U	5.	2	ug/l	79	82	46-152	3	30
Hexachlorobutadiene	5	U	5.	2	ug/l	100	98	51-125	2	30
2-Hexanone	10	U	10.	3	ug/l	74	80	44-126	8	30
di-Isopropyl ether	5	U	5.	0.5	ug/l	98	98	65-120	1	30
Isopropylbenzene	5	U	5.	1	ug/l	104	104	77-120	0	30
p-Isopropyltoluene	5	U	5.	1	ug/l	100	101	80-120	1	30
Methyl Iodide	5	U	5.	0.5	ug/l	105	106	75-128	1	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/l	108	108	75-120	0	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	78	84	51-124	6	30
Methylene Chloride	5	U	5.	2	ug/l	116	116	80-120	0	30
n-Propylbenzene	5	U	5.	1	ug/l	102	102	80-120	0	30
Styrene	5	U	5.	1	ug/l	104	103	80-120	0	30
1,1,1,2-Tetrachloroethane	5	U	5.	0.5	ug/l	103	101	80-120	2	30
1,1,2,2-Tetrachloroethane	5	U	5.	0.5	ug/l	89	92	70-120	4	30
Tetrachloroethene	5	U	5.	0.5	ug/l	107	108	80-120	1	30
Toluene	5	U	5.	0.5	ug/l	104	104	80-120	0	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	102	104	58-126	2	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	103	104	65-120	1	30
1,1,1-Trichloroethane	5	U	5.	0.5	ug/l	96	94	66-126	1	30
1,1,2-Trichloroethane	5	U	5.	0.5	ug/l	98	100	80-120	2	30
Trichloroethene	5	U	5.	0.5	ug/l	106	109	80-120	3	30
Trichlorofluoromethane	5	U	5.	0.5	ug/l	117	115	65-130	2	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	89	94	76-120	5	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	103	103	74-120	0	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	102	104	74-120	1	30
Vinyl Acetate	10	U	10.	2	ug/l	74	74	56-135	0	30
Vinyl Chloride	5	U	5.	0.5	ug/l	111	112	63-120	1	30
m+p-Xylene	5	U	5.	0.5	ug/l	102	102	80-120	0	30
o-Xylene	5	U	5.	0.5	ug/l	102	102	80-120	0	30
Batch number: 14144WAN026	Sample number(s): 7475817-7475818									
Acenaphthene	0.050	U	0.050	0.010	ug/l	101	107	83-119	6	30
Acenaphthylene	0.050	U	0.050	0.010	ug/l	95	101	81-130	6	30
Anthracene	0.050	U	0.050	0.010	ug/l	96	103	83-125	7	30
Benzo(a)anthracene	0.050	U	0.050	0.010	ug/l	93	100	79-122	6	30
Benzo(a)pyrene	0.050	U	0.050	0.010	ug/l	94	100	80-121	6	30
Benzo(b)fluoranthene	0.050	U	0.050	0.010	ug/l	102	108	79-136	6	30
Benzo(e)pyrene	0.050	U	0.050	0.010	ug/l	96	103	67-118	7	30
Benzo(g,h,i)perylene	0.050	U	0.050	0.010	ug/l	91	97	72-132	7	30
Benzo(k)fluoranthene	0.050	U	0.050	0.010	ug/l	96	100	81-131	5	30
Butylbenzylphthalate	1.0	U	1.0	0.050	ug/l	90	96	40-138	7	30
Di-n-butylphthalate	1.0	U	1.0	0.050	ug/l	100	100	64-141	0	30
Chrysene	0.050	U	0.050	0.010	ug/l	97	101	84-118	4	30
Dibenz(a,h)anthracene	0.050	U	0.050	0.010	ug/l	81	89	66-133	10	30
Diethylphthalate	1.0	U	1.0	0.050	ug/l	96	103	64-137	6	30
Dimethylphthalate	1.0	U	1.0	0.050	ug/l	94	100	23-139	7	30
Bis(2-Ethylhexyl)phthalate	0.056	J	1.0	0.050	ug/l	160*	72	70-143	77*	30
Fluoranthene	0.050	U	0.050	0.010	ug/l	89	94	84-124	6	30
Fluorene	0.050	U	0.050	0.010	ug/l	90	96	82-119	6	30
Indeno(1,2,3-cd)pyrene	0.050	U	0.050	0.010	ug/l	85	93	68-132	8	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476822
Reported: 06/09/14 at 01:48 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	84*	89	86-130	5	30
2-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	83	87	81-131	5	30
Naphthalene	0.050	U	0.050	0.030	ug/l	88	93	82-122	5	30
N-Nitrosodimethylamine	0.050	U	0.050	0.010	ug/l	62	68	56-96	9	30
Di-n-octylphthalate	1.0	U	1.0	0.050	ug/l	59	63	57-145	6	30
Phenanthrene	0.050	U	0.050	0.030	ug/l	92	98	83-116	6	30
Pyrene	0.050	U	0.050	0.010	ug/l	100	107	78-125	7	30
Batch number: 14155SLA026	Sample number(s): 7475822-7475824,7475827-7475828									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	113		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	106		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	111		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	98		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	89		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	101		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	80*		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	99		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	84		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	100		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	105		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	91		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	105		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	96		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	85		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	101		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	106		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	103		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	99		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	97		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	102		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	99		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	89		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	100		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	102		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	88		80-119		
Batch number: 14147C16A	Sample number(s): 7475821-7475823,7475826-7475828									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	70		67-120		
Batch number: 14149A94A	Sample number(s): 7475817-7475819									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	96	95	80-133	1	30
Batch number: 141430009A	Sample number(s): 7475818									
Formaldehyde	50	U	50.	30	ug/l	98	100	67-117	2	30
Batch number: 141440035A	Sample number(s): 7475822-7475824,7475827-7475828									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	94	92	36-106	2	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	106		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	113		84-125		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476822
Reported: 06/09/14 at 01:48 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141470014A	Sample number(s): 7475818									
Aldrin	0.0080	U	0.0080	0.0016	ug/l	77	83	37-137	8	30
Alpha BHC	0.0080	U	0.0080	0.0024	ug/l	93	96	44-148	3	30
Beta BHC	0.0080	U	0.0080	0.0027	ug/l	97	98	48-147	1	30
Gamma BHC - Lindane	0.0080	U	0.0080	0.0016	ug/l	95	96	44-146	0	30
Chlordane	0.40	U	0.40	0.13	ug/l					
p,p-DDD	0.016	U	0.016	0.0040	ug/l	96	98	44-152	2	30
p,p-DDE	0.016	U	0.016	0.0040	ug/l	92	95	44-146	4	30
p,p-DDT	0.016	U	0.016	0.0042	ug/l	85	90	44-146	5	30
Delta BHC	0.0080	U	0.0080	0.0027	ug/l	97	100	47-146	3	30
Dieldrin	0.016	U	0.016	0.0042	ug/l	94	93	45-146	1	30
Endosulfan I	0.0080	U	0.0080	0.0034	ug/l	87	87	39-140	0	30
Endosulfan II	0.016	U	0.016	0.012	ug/l	95	97	45-139	2	30
Endosulfan Sulfate	0.016	U	0.016	0.0046	ug/l	97	99	48-139	3	30
Endrin	0.016	U	0.016	0.0065	ug/l	91	91	43-139	1	30
Endrin Aldehyde	0.080	U	0.080	0.016	ug/l	92	94	43-144	2	20
Endrin Ketone	0.016	U	0.016	0.0040	ug/l	98	98	42-152	1	30
Heptachlor	0.0080	U	0.0080	0.0016	ug/l	83	87	36-146	4	30
Heptachlor Epoxide	0.0080	U	0.0080	0.0018	ug/l	95	94	49-142	1	30
Methoxychlor	0.080	U	0.080	0.024	ug/l	84	87	40-150	3	30
Mirex	0.040	U	0.040	0.0080	ug/l					
Toxaphene	0.80	U	0.80	0.24	ug/l					
Batch number: 141480020A	Sample number(s): 7475817-7475818									
Aroclor 5432	0.40	U	0.40	0.080	ug/l					
Aroclor 5442	0.40	U	0.40	0.080	ug/l	76	69	34-115	10	30
Aroclor 5460	0.40	U	0.40	0.088	ug/l					
PCB-1016	0.40	U	0.40	0.080	ug/l	99	99	60-117	0	30
PCB-1221	0.40	U	0.40	0.080	ug/l					
PCB-1232	0.40	U	0.40	0.16	ug/l					
PCB-1242	0.40	U	0.40	0.080	ug/l					
PCB-1248	0.40	U	0.40	0.080	ug/l					
PCB-1254	0.40	U	0.40	0.080	ug/l					
PCB-1260	0.40	U	0.40	0.12	ug/l	106	106	67-128	0	30
PCB-1262	0.40	U	0.40	0.16	ug/l					
PCB-1268	0.40	U	0.40	0.13	ug/l					
Batch number: 141440024A	Sample number(s): 7475817-7475818									
EFH C12-C14 w/ SiGel	0.10	U	0.10	0.050	mg/l	75	74	67-109	2	30
EFH C15-C20 w/ SiGel	0.10	U	0.10	0.050	mg/l	80	80	71-119	0	30
EFH C21-C30 w/ SiGel	0.10	U	0.10	0.050	mg/l	80	80	75-117	0	30
EFH C30-C40 w/ SiGel	0.50	U	0.50	0.10	mg/l	79	78	44-134	2	30
EFH C8-C11 w/ SiGel	0.10	U	0.10	0.050	mg/l	58	56	55-86	3	30
Batch number: 141440025A	Sample number(s): 7475817-7475818									
EFH (C12-C14)	0.10	U	0.10	0.050	mg/l	85	85	67-109	0	30
EFH (C15-C20)	0.10	U	0.10	0.050	mg/l	90	91	71-119	1	30
EFH (C21-C30)	0.10	U	0.10	0.050	mg/l	90	94	75-117	4	30
EFH (C30 - C40)	0.50	U	0.50	0.10	mg/l	82	84	44-134	3	30
EFH (C8-C11)	0.10	U	0.10	0.050	mg/l	71	70	55-86	1	30
Batch number: 141470033A	Sample number(s): 7475820-7475828									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	87		76-115		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476822
Reported: 06/09/14 at 01:48 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	89		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	90		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	78		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	74		60-115		
Batch number: 141470034A	Sample number(s): 7475820-7475828									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	86		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	90		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	90		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	80		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	62		60-115		
Batch number: 141475713004	Sample number(s): 7475817-7475818									
3b Mercury 7470A	0.00020	U	0.00020	0.00006 0	mg/l	105	97	90-115	8	20
Batch number: 141480635002	Sample number(s): 7475817-7475818									
Aluminum	0.400	U	0.400	0.0828	mg/l	105	105	90-112	0	20
Antimony	0.0400	U	0.0400	0.0053	mg/l	97	96	88-111	1	20
Arsenic	0.0400	U	0.0400	0.0068	mg/l	105	105	90-113	0	20
Barium	0.0100	U	0.0100	0.00033	mg/l	107	104	90-110	3	20
Beryllium	0.0100	U	0.0100	0.00067	mg/l	102	100	90-111	2	20
Boron	0.100	U	0.100	0.0084	mg/l	98	97	90-110	1	20
Cadmium	0.0100	U	0.0100	0.00076	mg/l	107	106	90-112	2	20
Calcium	0.400	U	0.400	0.0334	mg/l	105	103	90-112	2	20
Chromium	0.0300	U	0.0300	0.0016	mg/l	104	103	90-110	1	20
Cobalt	0.0100	U	0.0100	0.0013	mg/l	108	107	90-110	1	20
Copper	0.0200	U	0.0200	0.0027	mg/l	107	106	90-112	1	20
Iron	0.400	U	0.400	0.0430	mg/l	105	103	90-112	2	20
Lead	0.0300	U	0.0300	0.0047	mg/l	110	108	88-116	2	20
Lithium	0.0400	U	0.0400	0.0047	mg/l	106	104	90-110	1	20
Magnesium	0.200	U	0.200	0.0167	mg/l	104	102	89-110	1	20
Manganese	0.0100	U	0.0100	0.00083	mg/l	108	106	90-110	2	20
Molybdenum	0.0200	U	0.0200	0.0017	mg/l	105	104	90-110	1	20
Nickel	0.0200	U	0.0200	0.0015	mg/l	111	109	90-111	2	20
Phosphorus	0.200	U	0.200	0.0418	mg/l	103	103	90-110	1	20
Potassium	1.00	U	1.00	0.0980	mg/l	103	102	90-110	1	20
Sodium	2.00	U	2.00	0.167	mg/l	102	101	87-114	1	20
Tin	0.0400	U	0.0400	0.0029	mg/l	102	101	90-110	1	20
Titanium	0.0200	U	0.0200	0.0017	mg/l	106	104	90-113	2	20
Vanadium	0.0100	U	0.0100	0.0020	mg/l	108	106	90-110	2	20
Zinc	0.0400	U	0.0400	0.0020	mg/l	105	103	90-110	2	20
Zirconium	0.0110	J	0.100	0.0084	mg/l	104	103	90-110	1	20
Batch number: 141480638002	Sample number(s): 7475822-7475828									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	85		85-120		
Batch number: 141480639002A	Sample number(s): 7475817-7475818									
Silver	0.0010	U	0.0010	0.00011	mg/l	112	104	90-115	8	20
Strontium	0.0020	U	0.0020	0.00034	mg/l	106	103	90-110	3	20
Thallium	0.0010	U	0.0010	0.00015	mg/l	108	100	90-115	7	20
Batch number: 141480639002B	Sample number(s): 7475817-7475818									
Selenium	0.0040	U	0.0040	0.00050	mg/l	103	100	90-114	3	20
Batch number: 141490637001	Sample number(s): 7475822-7475828									

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476822
Reported: 06/09/14 at 01:48 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Aluminum	7.59	J	40.0	7.21	mg/kg	108		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	109		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	103		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	102		80-120		
Beryllium	0.0890	J	1.00	0.0670	mg/kg	103		80-120		
Boron	1.60	J	10.0	0.840	mg/kg	101		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	103		80-120		
Calcium	21.3		20.0	3.34	mg/kg	107		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	101		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	104		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	104		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	106		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	104		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	102		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	102		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	103		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	102		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	107		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	103		80-120		
Potassium	100 U		100.	8.34	mg/kg	102		80-120		
Sodium	100 U		100.	16.7	mg/kg	101		80-120		
Tin	1.59	J	10.0	0.220	mg/kg	102		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	105		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	106		80-120		
Zinc	4.00	U	4.00	0.200	mg/kg	102		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	105		80-120		
Batch number: 141490637001A	Sample number(s): 7475822-7475828									
Silver	0.200	U	0.200	0.0260	mg/kg	103		80-120		
Strontium	0.103	J	0.400	0.0680	mg/kg	102		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	103		80-120		
Batch number: 141490637001B	Sample number(s): 7475822-7475828									
Selenium	0.400	U	0.400	0.100	mg/kg	107		80-120		
Batch number: 14144039401A	Sample number(s): 7475822-7475825									
15a pH by 9045D						100		95-105		
Batch number: 14144039401B	Sample number(s): 7475826-7475828									
15a pH by 9045D						100		95-105		
Batch number: 14147002104A	Sample number(s): 7475817-7475818									
28b pH (9040B and 9040C)						100		90-110		
Batch number: 14148162402A	Sample number(s): 7475820-7475828									
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14153002	Sample number(s): 7475818									
2378-TCDD	0.380	J	2.00	0.276	pg/l	93		60-150		
12378-PeCDD	0.681	J	10.0	0.246	pg/l	93		60-150		

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476822
Reported: 06/09/14 at 01:48 PM

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
123478-HxCDD	0.447	J	10.0	0.159	pg/l	94		60-150		
123678-HxCDD	0.340	J	10.0	0.168	pg/l	92		60-150		
123789-HxCDD	0.401	J	10.0	0.156	pg/l	94		60-150		
1234678-HpCDD	1.48	J	10.0	0.146	pg/l	93		60-150		
OCDD	3.59	J	20.0	0.227	pg/l	89		60-150		
2378-TCDF	2.00	U	2.00	0.170	pg/l	91		60-150		
12378-PeCDF	0.578	J	10.0	0.107	pg/l	94		60-150		
23478-PeCDF	0.774	J	10.0	0.101	pg/l	94		60-150		
123478-HxCDF	0.904	J	10.0	0.136	pg/l	96		60-150		
123678-HxCDF	0.611	J	10.0	0.124	pg/l	95		60-150		
123789-HxCDF	0.782	J	10.0	0.118	pg/l	93		60-150		
234678-HxCDF	0.441	J	10.0	0.114	pg/l	93		60-150		
1234678-HpCDF	0.896	J	10.0	0.0864	pg/l	95		60-150		
1234789-HpCDF	0.700	J	10.0	0.108	pg/l	94		60-150		
OCDF	2.01	J	20.0	0.174	pg/l	93		60-150		
TEQ WHO 2005 - EDLx0.0	0.162				pg/l					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14155SLA026	Sample number(s): 7475822-7475824,7475827-7475828 UNSPK: P475537								
Acenaphthene	109	109	48-127	1	30				
Acenaphthylene	101	101	60-128	0	30				
Anthracene	105	102	52-126	2	30				
Benzo(a)anthracene	94	94	44-143	1	30				
Benzo(a)pyrene	84	84	49-137	0	30				
Benzo(b)fluoranthene	94	93	26-142	1	30				
Benzo(e)pyrene	76	76	63-111	0	30				
Benzo(g,h,i)perylene	96	95	33-141	1	30				
Benzo(k)fluoranthene	81	81	49-144	0	30				
Butylbenzylphthalate	98	97	64-156	1	30				
Di-n-butylphthalate	98	99	52-147	0	30				
Chrysene	89	89	43-141	0	30				
Dibenz(a,h)anthracene	101	102	25-145	0	30				
Diethylphthalate	90	91	66-140	0	30				
Dimethylphthalate	82	80	70-123	3	30				
Bis(2-Ethylhexyl)phthalate	101	99	48-164	2	30				
Fluoranthene	96	96	38-153	0	30				
Fluorene	97	96	57-130	1	30				
Indeno(1,2,3-cd)pyrene	96	95	26-139	1	30				
1-Methylnaphthalene	94	93	59-139	1	30				
2-Methylnaphthalene	99	99	46-147	0	30				
Naphthalene	96	94	52-136	2	30				
N-Nitrosodimethylamine	86	87	39-134	0	30				
Di-n-octylphthalate	100	100	52-162	0	30				

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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476822
Reported: 06/09/14 at 01:48 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Phenanthrene	99	97	50-137	2	30				
Pyrene	83	83	26-143	0	30				
Batch number: 14147C16A	Sample number(s): 7475821-7475823,7475826-7475828 UNSPK: P475537								
11a TPH by EPA 8015B GRO	74	87	69-123	21	30				
Batch number: 141440035A	Sample number(s): 7475822-7475824,7475827-7475828 UNSPK: P475537								
PCB-1016	92	95	41-135	3	50				
PCB-1260	96	99	40-134	3	50				
Batch number: 141470033A	Sample number(s): 7475820-7475828 UNSPK: P475537								
EFH (C12-C14)	82	91	49-123	9	20				
EFH (C15-C20)	85	95	49-123	9	20				
EFH (C21-C30)	86	96	49-123	10	20				
EFH (C30-C40)	69	74	49-123	6	20				
EFH (C8-C11)	73	83	49-123	12	20				
Batch number: 141470034A	Sample number(s): 7475820-7475828 UNSPK: P475537								
EFH C12-C14 w/ SiGel	72	81	49-123	11	20				
EFH C15-C20 w/ SiGel	74	83	49-123	10	20				
EFH C21-C30 w/ SiGel	75	84	49-123	10	20				
EFH C30-C40 w/ SiGel	68	75	49-123	8	20				
EFH C8-C11 w/ SiGel	56	65	49-123	15	20				
Batch number: 141480638002	Sample number(s): 7475822-7475828 UNSPK: P475537 BKG: P475537								
3a Mercury 7471A	91	92	65-135	2	20	0.0111 J	0.0105 J	6 (1)	20
Batch number: 141490637001	Sample number(s): 7475822-7475828 UNSPK: P475537 BKG: P475537								
Aluminum	2418 (2)	2734 (2)	75-125	3	20	17,700	17,800	1	20
Antimony	77	80	75-125	3	20	3.88 U	3.88 U	0 (1)	20
Arsenic	101	103	75-125	1	20	3.89	4.13	6 (1)	20
Barium	103	103	75-125	0	20	84.5	86.5	2	20
Beryllium	102	101	75-125	1	20	0.751 J	0.776 J	3 (1)	20
Boron	98	98	75-125	0	20	5.99 J	6.29 J	5 (1)	20
Cadmium	96	98	75-125	2	20	0.174 J	0.126 J	32* (1)	20
Calcium	163 (2)	192 (2)	75-125	4	20	2,300	2,380	3	20
Chromium	112	124	75-125	6	20	17.9	18.2	1	20
Cobalt	96	95	75-125	1	20	4.22	8.65	69* (1)	20
Copper	107	137*	75-125	20	20	7.17	7.48	4 (1)	20
Iron	672 (2)	1158 (2)	75-125	2	20	20,600	20,000	3	20
Lead	97	109	75-125	9	20	4.90	5.26	7 (1)	20
Lithium	106	104	75-125	2	20	23.7	23.7	0	20
Magnesium	299 (2)	377 (2)	75-125	3	20	3,780	3,910	3	20
Manganese	129 (2)	134 (2)	75-125	1	20	234	273	15	20
Molybdenum	96	95	75-125	1	20	0.539 J	0.384 J	33* (1)	20
Nickel	101	100	75-125	1	20	9.62	9.91	3 (1)	20
Phosphorus	104	159*	75-125	16	20	203	212	4	20
Potassium	139*	128*	75-125	3	20	1,970	2,030	3	20
Sodium	105	101	75-125	4	20	132	138	5 (1)	20
Tin	92	91	75-125	1	20	2.72 J	2.85 J	5 (1)	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476822
Reported: 06/09/14 at 01:48 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Titanium	297 (2)	399 (2)	75-125	7	20	1,020	1,030	0	20
Vanadium	109	114	75-125	3	20	35.9	36.1	1	20
Zinc	100	142*	75-125	21*	20	41.2	41.8	1	20
Zirconium	97	97	75-125	0	20	3.97 J	4.80 J	19 (1)	20
Batch number: 141490637001A	Sample number(s): 7475822-7475828 UNSPK: P475537 BKG: P475537								
Silver	103	103	75-125	1	20	0.0377 J	0.0369 J	2 (1)	20
Strontium	128*	118	75-125	3	20	19.2	19.4	1	20
Thallium	100	104	75-125	2	20	0.217	0.213	2 (1)	20
Batch number: 141490637001B	Sample number(s): 7475822-7475828 UNSPK: P475537 BKG: P475537								
Selenium	102	102	75-125	0	20	0.188 J	0.184 J	2 (1)	20
Batch number: 14144039401A	Sample number(s): 7475822-7475825 BKG: P475537								
15a pH by 9045D						7.72	7.74	0	3
Batch number: 14144039401B	Sample number(s): 7475826-7475828 BKG: 7475828								
15a pH by 9045D						7.38	7.37	0	3
Batch number: 14147002104A	Sample number(s): 7475817-7475818 BKG: P476649								
28b pH (9040B and 9040C)						7.6	7.7	1	3
Batch number: 14148162402A	Sample number(s): 7475820-7475828 BKG: 7475826								
14a Moisture Content by 160.3						9.4	8.9	6	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141471AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7475817	102	101	98	95
Blank	101	100	99	96
LCS	101	99	100	100
LCSD	101	101	100	99
Limits:	86-118	80-120	88-110	86-115

Analysis Name: 7b SVOC SIM EPA 8270D
Batch number: 14144WAN026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7475817	90	102	77
7475818	91	105	82
Blank	80	92	72

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476822
Reported: 06/09/14 at 01:48 PM

Surrogate Quality Control

LCS	92	106	84
LCSD	98	114	89
Limits:	59-128	62-141	70-134

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14155SLA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7475822	91	107	86
7475823	95	114	88
7475824	90	110	85
7475827	90	105	84
7475828	101	114	89
Blank	106	122*	93
LCS	107	123*	94
MS	98	114	91
MSD	98	114	92
Limits:	59-115	61-118	70-127

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 14147C16A

	Trifluorotoluene-F
7475821	79
7475822	83
7475823	81
7475826	88
7475827	83
7475828	87
Blank	90
LCS	86
MS	83
MSD	83
Limits:	50-142

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14149A94A

	Trifluorotoluene-F
7475817	83
7475818	90
7475819	79
Blank	82
LCS	91
LCSD	90
Limits:	63-135

Analysis Name: 19b Formaldehyde 8315A
Batch number: 141430009A

	Butyraldehyde

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476822
Reported: 06/09/14 at 01:48 PM

Surrogate Quality Control

7475818	90	
Blank	93	
LCS	95	
LCSD	101	
Limits:	36-155	

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141440035A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7475822	97	105
7475823	99	107
7475824	101	105
7475827	103	110
7475828	106	110
Blank	112	116
LCS	118	128*
LCSD	107	114
MS	100	105
MSD	101	107
Limits:	45-120	45-120

Analysis Name: 22b Pesticides by EPA 8081B
Batch number: 141470014A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7475818	90	87
Blank	71	89
LCS	90	92
LCSD	89	94
Limits:	60-140	20-120

Analysis Name: 21b PCBs and PCTs 8082A
Batch number: 141480020A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7475817	115	95
7475818	107	54
Blank	120	97
LCS	114	88
LCSD	114	86
Limits:	45-120	45-120

Analysis Name: 10b TPH-DRO (w/Si Gel)
Batch number: 141440024A

	Chlorobenzene	Orthoterphenyl
7475817	65	76
7475818	66	72
Blank	82	91
LCS	68	74
LCSD	66	74

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476822
Reported: 06/09/14 at 01:48 PM

Surrogate Quality Control

Limits:	45-126	69-119

Analysis Name: 10b TPH by EPA 8015B (DRO)
Batch number: 141440025A

	Chlorobenzene	Orthoterphenyl
7475817	73	83
7475818	75	85
Blank	73	85
LCS	72	84
LCSD	72	84
Limits:	45-126	69-119

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141470033A

	Chlorobenzene	Orthoterphenyl
7475820	78	93
7475821	81	92
7475822	71	81
7475823	81	96
7475824	80	87
7475825	82	97
7475826	73	75
7475827	74	66
7475828	75	82
Blank	79	90
LCS	75	88
MS	72	83
MSD	80	90
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141470034A

	Chlorobenzene	Orthoterphenyl
7475820	85	91
7475821	79	88
7475822	68	74
7475823	69	83
7475824	69	76
7475825	73	83
7475826	69	71
7475827	68	60*
7475828	75	80
Blank	67	80
LCS	77	88
MS	68	75
MSD	77	83
Limits:	37-125	66-123

Analysis Name: 17b Dioxin/Furan by EPA 1613B

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476822
Reported: 06/09/14 at 01:48 PM

Surrogate Quality Control

Batch number: 14153002

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7475818	76	86	92	95	92	94
Blank	82	84	88	88	87	87
OPR	72	84	86	85	85	85
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7475818	84	72	87	88	91	92
Blank	78	77	86	84	85	88
OPR	82	67	79	83	82	83
Limits:	17-157	24-169	24-185	21-178	26-152	26-123

	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF
7475818	93	107	101	89	85
Blank	89	105	90	81	74
OPR	86	92	86	81	76
Limits:	28-136	29-147	28-143	26-138	17-157

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SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/22/2014
CarrierName: FedEx
AirbillNo: 770073250078

A-13013
G-1476822
S-7475817-28

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140522-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488--09a	Other Analysis/Notes
EB1-052214	5/22/14 15:00	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	X		X																															
EB2-052214	5/22/14 15:30	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	X		X																															
EB1-052214	5/22/14 15:00	WQ	None	1 - 250 mL Amber	10 day							X																											
EB1-052214	5/22/14 15:00	WQ	None	1 - 250 mL Amber	10 day										X																								
EB1-052214	5/22/14 15:00	WQ	None	1 - 250 mL Poly	10 day														X																				
EB1-052214	5/22/14 15:00	WQ	HCl	3 - 40 mL Vial	10 day																	X																
EB1-052214	5/22/14 15:00	WQ	HCl	3 - 40 mL Vial	10 day																			X														
EB1-052214	5/22/14 15:00	WQ	HCl	2 - 1 L Amber	10 day																				X													
EB2-052214	5/22/14 15:30	WQ	None	1 - 250 mL Amber	10 day							X																											
EB2-052214	5/22/14 15:30	WQ	None	2 - 1 L Amber	10 day									X																									
EB2-052214	5/22/14 15:30	WQ	None	1 - 250 mL Amber	10 day										X																								
EB2-052214	5/22/14 15:30	WQ	None	1 - 250 mL Poly	10 day														X																				
EB2-052214	5/22/14 15:30	WQ	None	1 - 250 mL Amber	10 day																	X																
EB2-052214	5/22/14 15:30	WQ	HCl	3 - 40 mL Vial	10 day																			X														
EB2-052214	5/22/14 15:30	WQ	HCl	2 - 1 L Amber	10 day																				X													
EB2-052214	5/22/14 15:30	WQ	None	1 - 250 mL Amber	10 day																												X						

For all EFH, silica gel clean up required on half the extract. Analyze both extracts for EFH.

Special Instructions:

Sampler: Ron Hart

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Stay Myers-Pas	5/22/14	16:00									
										5/24/14	0930

Final Data Gap Block 2

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/22/2014 A-13013

CarrierName: FedEx G-476822

AirbillNo: 7700 7325 0078 S-475817-28

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20140522-02

Cooler #: 2

Lab: Lancaster

Lab Phone: 717-556-7259

Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc. Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488--09a	Other Analysis/Notes
TB1-052214	5/22/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																			X																
FDG2-SL-628-SA8-SB-0.0-0.5	5/22/14 08:20	SO	None	1 - SS-Sleeve	10 day																				X															
FDG2-SL-628-SA8-SB-4.0-5.0	5/22/14 08:30	SO	None	1 - SS-Sleeve	10 day																				X															
FDG2-SL-628-SA8-SB-4.0-5.0	5/22/14 08:30	SO	None	2 - Encore	10 day																			X															
FDG2-SL-628-SA8-SB-9.0-10.0	5/22/14 08:52	SO	None	2 - Encore	10 day																			X															
FDG2-SL-628-SA8-SB-9.0-10.0	5/22/14 08:52	SO	None	2 - SS-Sleeve	10 day	X	X					X			X											X														
FDG2-SL-628-SA8-SB-14.0-15.0	5/22/14 09:20	SO	None	1 - SS-Sleeve	10 day	X	X					X			X											X														
FDG2-SL-628-SA8-SB-14.0-15.0	5/22/14 09:20	SO	None	1 - 16 oz glass	10 day	X	X					X			X			X								X														
FDG2-SL-628-SA8-SB-9.0-10.0	5/22/14 08:52	SO	None	1 - 4 oz glass	10 day													X																					
FDG2-SL-628-SA8-SB-14.0-15.0	5/22/14 09:20	SO	None	2 - Encore	10 day																			X															
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/14 11:26	SO	None	1 - 4 oz glass	10 day													X																					
FDG2-SL-578-NBZ-SB-0.0-0.5	5/22/14 11:26	SO	None	2 - SS-Sleeve	10 day	X	X					X			X											X														
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/14 13:10	SO	None	1 - 4 oz glass	10 day													X																					
FDG2-SL-581-NBZ-SB-0.0-0.5	5/22/14 13:10	SO	None	1 - SS-Sleeve	10 day	X	X																			X														
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/14 13:20	SO	None	2 - 16 oz glass	10 day	X	X											X								X														
FDG2-SL-581-NBZ-SB-4.0-5.0	5/22/14 13:20	SO	None	2 - Encore	10 day																			X															
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/14 13:30	SO	None	2 - Encore	10 day																			X															
FDG2-SL-581-NBZ-SB-9.0-10.0	5/22/14 13:30	SO	None	2 - 16 oz glass	10 day	X	X					X			X			X								X														
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/14 13:41	SO	None	2 - 16 oz glass	10 day	X	X					X			X			X								X														
FDG2-SL-581-NBZ-SB-13.0-14.0	5/22/14 13:41	SO	None	2 - Encore	10 day																			X															

FINAL DATA GAP BLOCK 2

Ref by Bucanely Ban ELLE 5.23.14 950

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/22/2014 A-13013

CarrierName: FedEx G-1476822

AirbillNo: 7700 7325 0098 S-7475817-28

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20140522-02

Cooler #: 2

Lab: Lancaster

Lab Phone: 717-556-7259

Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate, Nitrite, TKN TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes

Special Instructions: For all EFH, silica gel clean up required on half the extract. Analyze both extracts for EFH.

Sampler: Radu Robau

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Sergio Mypelos	5/22/14	1000									
									Brian Ha	5.23.14	950

FINAL DATA GAP BLOCKER

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 15429

Group Number(s): 1476822

Client: CDM

SSFL

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/23/2014 9:50
Number of Packages:	3	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	9
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Brandy Barclay (2299) at 10:58 on 05/23/2014

Samples Chilled Details: SSFL

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT146	1.6	DT	Wet	Y	Bagged	N	N
2	DT146	1.0	DT	Wet	Y	Bagged	N	N
3	DT146	1.5	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

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Sample Administration Receipt Documentation Log

Doc Log ID: 15541

Group Number(s): 147682

Client: CDM Smith

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/24/2014 9:30
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	0
Custody Seal Present:	Yes	Trip Blank Type:	N/A
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Joseph Gruber (5200) at 10:08 on 05/24/2014

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	8013596-IR	15.3	IR	Wet	N	Bagged	N	Y

Elevated Temperature Details

All Temperatures in °C

Cooler #	Thermometer ID	Top Left Temp	Top Right Temp	Bottom Left Temp	Bottom Right Temp	Center Temp	Factors Contributing to Elevated Temp	Comments
1	8013596-IR	14.9	15.7	16.3	13.3	15.2		

General Comments: Missing cooler from 5/23

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 09, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/24/2014
Group Number: 1476956
SDG: PH197
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
FDG2-SL-561-NBZ-SB-0.0-0.5 Soil	7476634

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: FDG2-SL-561-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7476634
LL Group # 1476956
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 09:25 by RR

Submitted: 05/24/2014 09:30
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56100 SDG#: PH197-01*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	1.7	U	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	9.7	J	18	6.1	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.68	1
12969	Fluorene	86-73-7	4.1		1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	0.81	J	1.7	0.68	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.68	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.68	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.1	1
13099	PCB-1232	11141-16-5	17	U	17	4.1	1
13099	PCB-1242	53469-21-9	17	U	17	4.1	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	17	U	17	4.4	1
13099	PCB-1260	11096-82-5	17	U	17	3.9	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	10	U	10	4.0	2
12952	EFH (C15-C20)	n.a.	4.1	J	10	4.0	2

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-561-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7476634
LL Group # 1476956
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 09:25 by RR

Submitted: 05/24/2014 09:30
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56100 SDG#: PH197-01*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	44		10	4.0	2
12952	EFH (C30-C40)	n.a.	99		20	8.1	2
12952	EFH (C8-C11)	n.a.	10	U	10	4.0	2
13197	EFH C12-C14 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	16		5.0	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	7.2	J	10	4.0	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	9,960		40.1	7.22	1
06944	Antimony	7440-36-0	4.01	U	4.01	0.741	1
06935	Arsenic	7440-38-2	3.11	J	4.01	0.701	1
06946	Barium	7440-39-3	59.4		1.00	0.0330	1
06947	Beryllium	7440-41-7	0.373	J	1.00	0.0671	1
07914	Boron	7440-42-8	6.03	J	10.0	0.841	1
06949	Cadmium	7440-43-9	0.445	J	1.00	0.0761	1
01650	Calcium	7440-70-2	3,420		20.0	3.34	1
06951	Chromium	7440-47-3	18.2		3.00	0.160	1
06952	Cobalt	7440-48-4	4.10		1.00	0.0991	1
06953	Copper	7440-50-8	7.78		2.00	0.290	1
01654	Iron	7439-89-6	17,600		40.1	3.63	1
06955	Lead	7439-92-1	6.10		3.00	0.501	1
01656	Lithium	7439-93-2	23.6		4.0	0.34	1
01657	Magnesium	7439-95-4	4,340		10.0	1.67	1
06958	Manganese	7439-96-5	224		1.00	0.0831	1
06960	Molybdenum	7439-98-7	2.00	U	2.00	0.170	1
06961	Nickel	7440-02-0	8.50		2.00	0.130	1
10145	Phosphorus	7723-14-0	396		10.0	2.89	1
01662	Potassium	7440-09-7	3,000		100	8.35	1
01667	Sodium	7440-23-5	111		100	16.7	1
06969	Tin	7440-31-5	2.31	J	10.0	0.220	1
06970	Titanium	7440-32-6	794		1.00	0.170	1
06971	Vanadium	7440-62-2	25.3		1.00	0.130	1
06972	Zinc	7440-66-6	59.0		4.01	0.200	1
10146	Zirconium	7440-67-7	3.29	J	5.01	0.841	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.117	J	0.401	0.100	2
06142	Silver	7440-22-4	0.0287	J	0.200	0.0260	2
06144	Strontium	7440-24-6	20.3		0.401	0.0681	2
06145	Thallium	7440-28-0	0.198	J	0.200	0.0300	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0169	U	0.0169	0.0101	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-561-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7476634
LL Group # 1476956
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 09:25 by RR

Submitted: 05/24/2014 09:30
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56100 SDG#: PH197-01*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 22 C.	n.a.	7.45	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	2.1	0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14155SLA026	06/06/2014 07:06	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	14155SLA026	06/05/2014 02:15	Sherry L Morrow	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141500023A	06/02/2014 23:16	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141500023A	05/31/2014 06:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141470033A	05/29/2014 21:28	Heather E Williams	2
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141470034A	05/31/2014 00:05	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141470034A	05/28/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141470033A	05/28/2014 11:00	William H Saadeh	1
01643	Aluminum	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-561-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7476634
LL Group # 1476956
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 09:25 by RR

Submitted: 05/24/2014 09:30
Reported: 06/09/2014 13:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56100 SDG#: PH197-01*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06958	Manganese	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141470637002	05/28/2014 21:48	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141470637002B	05/28/2014 19:43	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637002A	05/28/2014 19:43	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637002A	05/28/2014 19:43	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637002A	05/28/2014 19:43	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638002	06/04/2014 20:53	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637002	05/28/2014 07:39	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638002	06/02/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14144039402A	05/24/2014 13:10	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162402A	05/28/2014 20:13	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476956
Reported: 06/09/14 at 01:48 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14155SLA026	Sample number(s): 7476634									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	113		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	106		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	111		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	98		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	89		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	101		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	80*		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	99		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	84		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	100		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	105		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	91		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	105		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	96		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	85		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	101		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	106		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	103		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	99		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	97		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	102		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	99		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	89		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	100		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	102		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	88		80-119		
Batch number: 141500023A	Sample number(s): 7476634									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	82	86	36-106	5	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	97		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	98		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141470033A	Sample number(s): 7476634									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	87		76-115		

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476956
Reported: 06/09/14 at 01:48 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	89		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	90		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	78		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	74		60-115		
Batch number: 141470034A	Sample number(s): 7476634									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	86		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	90		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	90		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	80		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	62		60-115		
Batch number: 141470637002	Sample number(s): 7476634									
Aluminum	9.28	J	40.0	7.21	mg/kg	110		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	107		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	105		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	103		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	103		80-120		
Boron	0.858	J	10.0	0.840	mg/kg	102		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	106		80-120		
Calcium	12.8	J	20.0	3.34	mg/kg	106		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	103		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	107		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	106		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	106		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	107		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	107		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	102		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	105		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	105		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	110		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	106		80-120		
Potassium	100 U		100.	8.34	mg/kg	103		80-120		
Sodium	100 U		100.	16.7	mg/kg	102		80-120		
Tin	1.36	J	10.0	0.220	mg/kg	104		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	104		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	106		80-120		
Zinc	0.956	J	4.00	0.200	mg/kg	105		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	105		80-120		
Batch number: 141470637002A	Sample number(s): 7476634									
Silver	0.200	U	0.200	0.0260	mg/kg	113		80-120		
Strontium	0.400	U	0.400	0.0680	mg/kg	115		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	108		80-120		
Batch number: 141470637002B	Sample number(s): 7476634									
Selenium	0.400	U	0.400	0.100	mg/kg	112		80-120		
Batch number: 141480638002	Sample number(s): 7476634									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	85		85-120		
Batch number: 14144039402A	Sample number(s): 7476634									
15a pH by 9045D						100		95-105		

*- Outside of specification
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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476956
Reported: 06/09/14 at 01:48 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14148162402A	Sample number(s): 7476634								
14a Moisture Content by 160.3					100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14155SLA026	Sample number(s): 7476634 UNSPK: P475537								
Acenaphthene	109	109	48-127	1	30				
Acenaphthylene	101	101	60-128	0	30				
Anthracene	105	102	52-126	2	30				
Benzo(a)anthracene	94	94	44-143	1	30				
Benzo(a)pyrene	84	84	49-137	0	30				
Benzo(b)fluoranthene	94	93	26-142	1	30				
Benzo(e)pyrene	76	76	63-111	0	30				
Benzo(g,h,i)perylene	96	95	33-141	1	30				
Benzo(k)fluoranthene	81	81	49-144	0	30				
Butylbenzylphthalate	98	97	64-156	1	30				
Di-n-butylphthalate	98	99	52-147	0	30				
Chrysene	89	89	43-141	0	30				
Dibenz(a,h)anthracene	101	102	25-145	0	30				
Diethylphthalate	90	91	66-140	0	30				
Dimethylphthalate	82	80	70-123	3	30				
Bis(2-Ethylhexyl)phthalate	101	99	48-164	2	30				
Fluoranthene	96	96	38-153	0	30				
Fluorene	97	96	57-130	1	30				
Indeno(1,2,3-cd)pyrene	96	95	26-139	1	30				
1-Methylnaphthalene	94	93	59-139	1	30				
2-Methylnaphthalene	99	99	46-147	0	30				
Naphthalene	96	94	52-136	2	30				
N-Nitrosodimethylamine	86	87	39-134	0	30				
Di-n-octylphthalate	100	100	52-162	0	30				
Phenanthrene	99	97	50-137	2	30				
Pyrene	83	83	26-143	0	30				
Batch number: 141500023A	Sample number(s): 7476634 UNSPK: 7476634								
PCB-1016	95	96	41-135	1	50				
PCB-1260	94	99	40-134	5	50				
Batch number: 141470033A	Sample number(s): 7476634 UNSPK: P475537								
EFH (C12-C14)	82	91	49-123	9	20				
EFH (C15-C20)	85	95	49-123	9	20				
EFH (C21-C30)	86	96	49-123	10	20				
EFH (C30-C40)	69	74	49-123	6	20				
EFH (C8-C11)	73	83	49-123	12	20				
Batch number: 141470034A	Sample number(s): 7476634 UNSPK: P475537								
EFH C12-C14 w/ SiGel	72	81	49-123	11	20				
EFH C15-C20 w/ SiGel	74	83	49-123	10	20				
EFH C21-C30 w/ SiGel	75	84	49-123	10	20				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476956
Reported: 06/09/14 at 01:48 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
EFH C30-C40 w/ SiGel	68	75	49-123	8	20				
EFH C8-C11 w/ SiGel	56	65	49-123	15	20				
Batch number: 141470637002	Sample number(s): 7476634 UNSPK: P471505 BKG: P471505								
Aluminum	372 (2)	821 (2)	75-125	6	20	15,100	13,200	13	20
Antimony	52*	51*	75-125	2	20	4.00 U	4.00 U	0 (1)	20
Arsenic	96	96	75-125	2	20	4.11	3.09 J	28* (1)	20
Barium	35*	37*	75-125	2	20	230	94.1	84*	20
Beryllium	101	102	75-125	3	20	0.562 J	0.486 J	15 (1)	20
Boron	98	98	75-125	3	20	6.78 J	4.93 J	32* (1)	20
Cadmium	97	97	75-125	3	20	0.549 J	0.491 J	11 (1)	20
Calcium	149 (2)	103 (2)	75-125	5	20	2,920	2,520	15	20
Chromium	81	89	75-125	5	20	20.4	16.4	22*	20
Cobalt	96	97	75-125	4	20	5.22	5.04	4	20
Copper	102	105	75-125	4	20	10.3	8.93	14 (1)	20
Iron	-2173 (2)	-1295 (2)	75-125	5	20	18,600	17,400	7	20
Lead	98	93	75-125	2	20	6.89	5.48	23* (1)	20
Lithium	99	101	75-125	4	20	21.7	20.3	7	20
Magnesium	-196 (2)	-75 (2)	75-125	6	20	4,220	3,840	9	20
Manganese	156 (2)	119 (2)	75-125	5	20	291	294	1	20
Molybdenum	95	96	75-125	3	20	0.441 J	0.329 J	29* (1)	20
Nickel	96	97	75-125	4	20	11.0	10.8	3	20
Phosphorus	106	38*	75-125	15	20	372	354	5	20
Potassium	108	109	75-125	1	20	3,220	3,070	5	20
Sodium	95	96	75-125	4	20	111	102	8 (1)	20
Tin	90	90	75-125	3	20	2.39 J	2.23 J	7 (1)	20
Titanium	150 (2)	258 (2)	75-125	9	20	1,070	994	8	20
Vanadium	97	102	75-125	5	20	34.9	30.6	13	20
Zinc	93	89	75-125	1	20	56.3	52.0	8	20
Zirconium	98	98	75-125	4	20	3.99 J	4.08 J	2 (1)	20
Batch number: 141470637002A	Sample number(s): 7476634 UNSPK: P471505 BKG: P471505								
Silver	105	102	75-125	0	20	0.0276 J	0.0297 J	8 (1)	20
Strontium	106	92	75-125	3	20	22.8	19.7	15	20
Thallium	120	112	75-125	2	20	0.256	0.252	1 (1)	20
Batch number: 141470637002B	Sample number(s): 7476634 UNSPK: P471505 BKG: P471505								
Selenium	99	99	75-125	3	20	0.137 J	0.118 J	15 (1)	20
Batch number: 141480638002	Sample number(s): 7476634 UNSPK: P475537 BKG: P475537								
3a Mercury 7471A	91	92	65-135	2	20	0.0111 J	0.0105 J	6 (1)	20
Batch number: 14144039402A	Sample number(s): 7476634 BKG: 7476634								
15a pH by 9045D						7.45	7.48	0	3
Batch number: 14148162402A	Sample number(s): 7476634 BKG: P475826								
14a Moisture Content by 160.3						9.4	8.9	6	20

*- Outside of specification
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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476956
Reported: 06/09/14 at 01:48 PM

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14155SLA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7476634	90	100	85
Blank	106	122*	93
LCS	107	123*	94
MS	98	114	91
MSD	98	114	92
Limits:	59-115	61-118	70-127

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141500023A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7476634	110	102
Blank	115	102
LCS	111	101
LCSD	119	104
MS	107	101
MSD	108	105
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141470033A

	Chlorobenzene	Orthoterphenyl
7476634	76	90
Blank	79	90
LCS	75	88
MS	72	83
MSD	80	90
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141470034A

	Chlorobenzene	Orthoterphenyl
7476634	75	82
Blank	67	80
LCS	77	88
MS	68	75
MSD	77	83
Limits:	37-125	66-123

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476956
Reported: 06/09/14 at 01:48 PM

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(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/23/2014

CarrierName: FedEx

AirbillNo: ~~770081777065~~ sm52314
7700 8382 3163

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

A-13013
G-1476956
S-7476634

COC No: 20140523-02

Cooler #: 1

Lab: Lancaster

Lab Phone: 717-556-7259

Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/14 09:25	SO	None	1 - 16 oz glass	10 day	X	X					X			X			X							X														
FDG2-SL-561-NBZ-SB-0.0-0.5	5/23/14 09:25	SO	None	1 - SS-Sleeve	10 day	X	X					X			X										X														

Special Instructions: For all EFH, silica gel clean up required on half the extract. Analyze both extracts for EFH.

Sampler: Randall Roberts

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[signature]	05/23/14	1300									
									[signature]	5/24/14	0930 ~~0830~~ (3) JG 5/24/14

FINAL DATA GAP
BLOCK 2

1 of 1

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 15546

Group Number(s): 1476956

Client: CDM Smith

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/24/2014 9:30
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	N/A		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Joseph Gruber (5200) at 10:51 on 05/24/2014

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT131	3.4	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Analysis Report

REVISED

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

July 21, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/24/2014
Group Number: 1476957
SDG: PH198
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB2-052314 Water	7476635
SVL-536-SA5D-SB-1.8-2.3 Soil	7476636

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

REVISED

Sample Description: TB2-052314 Water
SSFL Phase 3 Subarea 5D

LL Sample # WW 7476635
LL Group # 1476957
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 08:00

Submitted: 05/24/2014 09:30
Reported: 07/21/2014 15:45

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB523 SDG#: PH198-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	5	U	5	0.5	1
10335	Benzene	71-43-2	5	U	5	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	5	U	5	0.5	1
10335	Bromoform	75-25-2	5	U	5	0.5	1
10335	Bromomethane	74-83-9	5	U	5	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	5	U	5	0.5	1
10335	Chlorobenzene	108-90-7	5	U	5	0.5	1
10335	Chloroethane	75-00-3	5	U	5	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	5	U	5	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	5	U	5	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	5	U	5	0.5	1
10335	1,2-Dibromoethane	106-93-4	5	U	5	0.5	1
10335	Dibromomethane	74-95-3	5	U	5	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	5	U	5	0.5	1
10335	1,1-Dichloroethane	75-34-3	5	U	5	0.5	1
10335	1,2-Dichloroethane	107-06-2	5	U	5	0.5	1
10335	1,1-Dichloroethene	75-35-4	5	U	5	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.5	1
10335	1,2-Dichloropropane	78-87-5	5	U	5	0.5	1
10335	1,3-Dichloropropane	142-28-9	5	U	5	0.5	1
10335	2,2-Dichloropropane	594-20-7	5	U	5	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.5	1
10335	Ethyl t-butyl ether	637-92-3	5	U	5	0.5	1
10335	Ethylbenzene	100-41-4	5	U	5	0.5	1
10335	Freon 113	76-13-1	5	U	5	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: TB2-052314 Water
SSFL Phase 3 Subarea 5D

LL Sample # WW 7476635
LL Group # 1476957
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 08:00

Submitted: 05/24/2014 09:30
Reported: 07/21/2014 15:45

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB523 SDG#: PH198-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	5	U	5	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	5	U	5	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	5	U	5	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.5	1
10335	Tetrachloroethene	127-18-4	5	U	5	0.5	1
10335	Toluene	108-88-3	5	U	5	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	5	U	5	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	5	U	5	0.5	1
10335	Trichloroethene	79-01-6	5	U	5	0.5	1
10335	Trichlorofluoromethane	75-69-4	5	U	5	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	5	U	5	0.5	1
10335	m+p-Xylene	179601-23-1	5	U	5	0.5	1
10335	o-Xylene	95-47-6	5	U	5	0.5	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: chlorotrifluoroethene.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141471AA	05/27/2014 14:54	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141471AA	05/27/2014 14:54	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: SVL-536-SA5D-SB-1.8-2.3 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7476636
LL Group # 1476957
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 10:54 by VV

Submitted: 05/24/2014 09:30
Reported: 07/21/2014 15:45

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53618 SDG#: PH198-02*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	21	U	21	7	0.98
10237	Acrolein	107-02-8	110	U	110	21	0.98
10237	Acrylonitrile	107-13-1	21	U	21	4	0.98
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.98
10237	Benzene	71-43-2	5	U	5	0.5	0.98
10237	Bromobenzene	108-86-1	5	U	5	1	0.98
10237	Bromochloromethane	74-97-5	5	U	5	1	0.98
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.98
10237	Bromoform	75-25-2	5	U	5	1	0.98
10237	Bromomethane	74-83-9	5	U	5	2	0.98
10237	2-Butanone	78-93-3	11	U	11	4	0.98
10237	t-Butyl alcohol	75-65-0	53	U	53	21	0.98
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.98
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.98
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.98
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.98
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.98
10237	Chlorobenzene	108-90-7	5	U	5	1	0.98
10237	Chloroethane	75-00-3	5	U	5	2	0.98
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	0.98
10237	Chloroform	67-66-3	5	U	5	1	0.98
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.98
10237	Chloromethane	74-87-3	5	U	5	2	0.98
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.98
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.98
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.98
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.98
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.98
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.98
10237	Dibromomethane	74-95-3	5	U	5	1	0.98
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.98
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.98
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.98
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.98
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.98
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.98
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.98
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.98
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.98
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.98
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.98
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.98
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.98
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.98
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.98
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.98
10237	Ethylbenzene	100-41-4	5	U	5	1	0.98
10237	Freon 113	76-13-1	5	U	5	2	0.98
10237	Freon 133a	75-88-7	5	U	5	2	0.98
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.98
10237	2-Hexanone	591-78-6	11	U	11	3	0.98

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: SVL-536-SA5D-SB-1.8-2.3 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7476636
LL Group # 1476957
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 10:54 by VV

Submitted: 05/24/2014 09:30
Reported: 07/21/2014 15:45

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53618 SDG#: PH198-02*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.98
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.98
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.98
10237	Methyl Iodide	74-88-4	5	U	5	3	0.98
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.98
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	0.98
10237	Methylene Chloride	75-09-2	5	U	5	2	0.98
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.98
10237	Styrene	100-42-5	5	U	5	1	0.98
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.98
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.98
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.98
10237	Toluene	108-88-3	5	U	5	1	0.98
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.98
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.98
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.98
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.98
10237	Trichloroethene	79-01-6	5	U	5	1	0.98
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.98
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.98
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.98
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.98
10237	Vinyl Acetate	108-05-4	11	U	11	2	0.98
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.98
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.98
10237	o-Xylene	95-47-6	5	U	5	1	0.98
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	7.3		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141491AA	05/29/2014 09:19	Stephanie A Selis	0.98
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201414434617	05/24/2014 19:06	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

REVISED

Sample Description: SVL-536-SA5D-SB-1.8-2.3 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7476636
LL Group # 1476957
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 10:54 by VV

Submitted: 05/24/2014 09:30
Reported: 07/21/2014 15:45

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53618 SDG#: PH198-02*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201414434617	05/24/2014 19:06	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201414434617	05/24/2014 18:59	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14148162401C	05/28/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476957
Reported: 07/21/14 at 03:45 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B141491AA	Sample number(s): 7476636								
Acetone	20 U	20.	7	ug/kg	108	112	41-149	3	30
Acrolein	100 U	100.	20	ug/kg	92	88	50-137	5	30
Acrylonitrile	20 U	20.	4	ug/kg	91	88	58-123	3	30
t-Amyl methyl ether	5 U	5.	1	ug/kg	86	88	63-130	2	30
Benzene	5 U	5.	0.5	ug/kg	96	93	80-120	3	30
Bromobenzene	5 U	5.	1	ug/kg	96	99	78-120	3	30
Bromochloromethane	5 U	5.	1	ug/kg	120	117	75-129	2	30
Bromodichloromethane	5 U	5.	1	ug/kg	96	95	75-120	1	30
Bromoform	5 U	5.	1	ug/kg	102	96	70-126	6	30
Bromomethane	5 U	5.	2	ug/kg	109	108	32-162	1	30
2-Butanone	10 U	10.	4	ug/kg	98	99	47-136	1	30
t-Butyl alcohol	50 U	50.	20	ug/kg	93	99	66-133	6	30
n-Butylbenzene	5 U	5.	1	ug/kg	95	93	72-120	2	30
sec-Butylbenzene	5 U	5.	1	ug/kg	97	93	69-120	4	30
tert-Butylbenzene	5 U	5.	1	ug/kg	94	95	75-120	1	30
Carbon Disulfide	5 U	5.	1	ug/kg	73	71	63-128	3	30
Carbon Tetrachloride	5 U	5.	1	ug/kg	98	96	69-130	2	30
Chlorobenzene	5 U	5.	1	ug/kg	100	95	80-120	5	30
Chloroethane	5 U	5.	2	ug/kg	102	101	17-171	1	30
2-Chloroethyl Vinyl Ether	10 U	10.	2	ug/kg	87	90	52-134	3	30
Chloroform	5 U	5.	1	ug/kg	108	106	80-120	2	30
1-Chlorohexane	5 U	5.	1	ug/kg	91	85	70-130	6	30
Chloromethane	5 U	5.	2	ug/kg	89	85	56-120	4	30
2-Chlorotoluene	5 U	5.	1	ug/kg	93	93	78-120	0	30
4-Chlorotoluene	5 U	5.	1	ug/kg	94	96	79-120	2	30
Chlorotrifluoroethene	5 U	5.	2	ug/kg	95	89	22-131	6	30
1,2-Dibromo-3-chloropropane	5 U	5.	2	ug/kg	79	90	50-132	13	30
Dibromochloromethane	5 U	5.	1	ug/kg	99	95	77-120	4	30
1,2-Dibromoethane	5 U	5.	1	ug/kg	98	97	80-120	2	30
Dibromomethane	5 U	5.	1	ug/kg	101	99	75-120	2	30
1,2-Dichlorobenzene	5 U	5.	1	ug/kg	99	98	80-120	1	30
1,3-Dichlorobenzene	5 U	5.	1	ug/kg	93	98	80-120	5	30
1,4-Dichlorobenzene	5 U	5.	1	ug/kg	93	102	80-120	10	30
Dichlorodifluoromethane	5 U	5.	2	ug/kg	74	71	26-137	5	30
1,1-Dichloroethane	5 U	5.	1	ug/kg	99	96	71-122	2	30
1,2-Dichloroethane	5 U	5.	1	ug/kg	110	108	66-136	1	30
1,1-Dichloroethene	5 U	5.	1	ug/kg	103	100	73-129	3	30
cis-1,2-Dichloroethene	5 U	5.	1	ug/kg	104	100	80-120	4	30
trans-1,2-Dichloroethene	5 U	5.	1	ug/kg	106	103	79-120	3	30
1,2-Dichloropropane	5 U	5.	1	ug/kg	96	97	77-120	0	30
1,3-Dichloropropane	5 U	5.	1	ug/kg	93	92	73-120	1	30
2,2-Dichloropropane	5 U	5.	1	ug/kg	90	88	72-123	2	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476957
Reported: 07/21/14 at 03:45 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/kg	100	96	77-120	4	30
cis-1,3-Dichloropropene	5	U	5.	1	ug/kg	92	92	74-120	1	30
trans-1,3-Dichloropropene	5	U	5.	1	ug/kg	88	86	69-120	2	30
Ethyl t-butyl ether	5	U	5.	1	ug/kg	88	89	59-134	1	30
Ethylbenzene	5	U	5.	1	ug/kg	98	94	80-120	4	30
Freon 113	5	U	5.	2	ug/kg	74	71	64-137	3	30
Freon 133a	5	U	5.	2	ug/kg	118	113	78-120	3	30
Hexachlorobutadiene	5	U	5.	2	ug/kg	105	105	46-130	0	30
2-Hexanone	10	U	10.	3	ug/kg	86	85	40-129	0	30
di-Isopropyl ether	5	U	5.	1	ug/kg	92	92	68-128	0	30
Isopropylbenzene	5	U	5.	1	ug/kg	101	97	76-120	4	30
p-Isopropyltoluene	5	U	5.	1	ug/kg	89	88	69-120	2	30
Methyl Iodide	5	U	5.	3	ug/kg	102	99	72-130	3	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/kg	93	91	69-126	2	30
4-Methyl-2-pentanone	10	U	10.	3	ug/kg	91	92	43-133	1	30
Methylene Chloride	5	U	5.	2	ug/kg	104	103	80-124	1	30
n-Propylbenzene	5	U	5.	1	ug/kg	95	96	77-120	1	30
Styrene	5	U	5.	1	ug/kg	101	96	76-120	4	30
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/kg	98	95	80-120	3	30
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/kg	86	93	71-123	8	30
Tetrachloroethene	5	U	5.	1	ug/kg	106	103	78-120	3	30
Toluene	5	U	5.	1	ug/kg	94	89	80-120	5	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/kg	105	100	64-120	5	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/kg	97	99	68-120	3	30
1,1,1-Trichloroethane	5	U	5.	1	ug/kg	95	93	63-135	2	30
1,1,2-Trichloroethane	5	U	5.	1	ug/kg	98	100	80-120	1	30
Trichloroethene	5	U	5.	1	ug/kg	102	101	80-120	1	30
Trichlorofluoromethane	5	U	5.	2	ug/kg	91	86	58-133	5	30
1,2,3-Trichloropropane	5	U	5.	1	ug/kg	94	100	71-123	6	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/kg	95	93	79-120	2	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/kg	94	95	78-120	2	30
Vinyl Acetate	10	U	10.	2	ug/kg	74	70	40-127	6	30
Vinyl Chloride	5	U	5.	1	ug/kg	93	92	59-120	1	30
m+p-Xylene	5	U	5.	1	ug/kg	99	97	80-120	2	30
o-Xylene	5	U	5.	1	ug/kg	97	94	80-120	3	30
Batch number: Y141471AA	Sample number(s): 7476635									
Acetone	20	U	20.	6	ug/l	78	84	43-149	7	30
Acrolein	100 U		100.	40	ug/l	94	89	52-129	4	30
Acrylonitrile	20	U	20.	4	ug/l	77	83	62-120	7	30
t-Amyl methyl ether	5	U	5.	0.5	ug/l	98	99	75-120	1	30
Benzene	5	U	5.	0.5	ug/l	104	105	78-120	1	30
Bromobenzene	5	U	5.	1	ug/l	103	103	80-120	0	30
Bromochloromethane	5	U	5.	1	ug/l	102	103	80-121	0	30
Bromodichloromethane	5	U	5.	0.5	ug/l	99	99	73-120	0	30
Bromoform	5	U	5.	0.5	ug/l	86	85	61-120	1	30
Bromomethane	5	U	5.	0.5	ug/l	104	105	58-120	1	30
2-Butanone	10	U	10.	3	ug/l	72	79	54-133	9	30
t-Butyl alcohol	50	U	50.	5	ug/l	97	103	75-120	7	30
n-Butylbenzene	5	U	5.	1	ug/l	100	100	68-120	0	30
sec-Butylbenzene	5	U	5.	1	ug/l	102	104	80-120	2	30
tert-Butylbenzene	5	U	5.	1	ug/l	100	103	73-120	3	30
Carbon Disulfide	5	U	5.	1	ug/l	69	68	58-126	2	30
Carbon Tetrachloride	5	U	5.	0.5	ug/l	107	109	74-130	2	30
Chlorobenzene	5	U	5.	0.5	ug/l	104	103	80-120	1	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476957
Reported: 07/21/14 at 03:45 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroethane	5	U	5.	0.5	ug/l	89	89	56-120	1	30
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/l	102	103	54-126	1	30
Chloroform	5	U	5.	0.5	ug/l	106	107	80-122	1	30
1-Chlorohexane	5	U	5.	1	ug/l	104	105	80-120	1	30
Chloromethane	5	U	5.	0.5	ug/l	118	120	63-120	2	30
2-Chlorotoluene	5	U	5.	1	ug/l	100	101	80-120	1	30
4-Chlorotoluene	5	U	5.	1	ug/l	100	101	80-120	1	30
Chlorotrifluoroethene	5	U	5.	2	ug/l	46*	48	47-120	5	30
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/l	75	83	56-120	10	30
Dibromochloromethane	5	U	5.	0.5	ug/l	101	98	72-120	3	30
1,2-Dibromoethane	5	U	5.	0.5	ug/l	100	101	76-120	1	30
Dibromomethane	5	U	5.	0.5	ug/l	98	99	80-120	1	30
1,2-Dichlorobenzene	5	U	5.	1	ug/l	101	102	80-120	1	30
1,3-Dichlorobenzene	5	U	5.	1	ug/l	101	102	80-120	1	30
1,4-Dichlorobenzene	5	U	5.	1	ug/l	103	103	80-120	1	30
Dichlorodifluoromethane	5	U	5.	0.5	ug/l	115	116	48-132	1	30
1,1-Dichloroethane	5	U	5.	0.5	ug/l	98	99	80-120	1	30
1,2-Dichloroethane	5	U	5.	0.5	ug/l	106	106	65-135	0	30
1,1-Dichloroethene	5	U	5.	0.5	ug/l	112	113	76-124	1	30
cis-1,2-Dichloroethene	5	U	5.	0.5	ug/l	105	106	80-120	1	30
trans-1,2-Dichloroethene	5	U	5.	0.5	ug/l	116	118	80-120	2	30
1,2-Dichloropropane	5	U	5.	0.5	ug/l	101	101	80-120	0	30
1,3-Dichloropropane	5	U	5.	0.5	ug/l	99	99	80-120	0	30
2,2-Dichloropropane	5	U	5.	0.5	ug/l	104	104	67-124	1	30
1,1-Dichloropropene	5	U	5.	1	ug/l	110	110	80-120	1	30
cis-1,3-Dichloropropene	5	U	5.	0.5	ug/l	96	96	80-120	0	30
trans-1,3-Dichloropropene	5	U	5.	0.5	ug/l	95	95	76-120	0	30
Ethyl t-butyl ether	5	U	5.	0.5	ug/l	97	98	74-120	1	30
Ethylbenzene	5	U	5.	0.5	ug/l	102	103	79-120	0	30
Freon 113	5	U	5.	2	ug/l	101	100	67-127	0	30
Freon 133a	5	U	5.	2	ug/l	79	82	46-152	3	30
Hexachlorobutadiene	5	U	5.	2	ug/l	100	98	51-125	2	30
2-Hexanone	10	U	10.	3	ug/l	74	80	44-126	8	30
di-Isopropyl ether	5	U	5.	0.5	ug/l	98	98	65-120	1	30
Isopropylbenzene	5	U	5.	1	ug/l	104	104	77-120	0	30
p-Isopropyltoluene	5	U	5.	1	ug/l	100	101	80-120	1	30
Methyl Iodide	5	U	5.	0.5	ug/l	105	106	75-128	1	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/l	108	108	75-120	0	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	78	84	51-124	6	30
Methylene Chloride	5	U	5.	2	ug/l	116	116	80-120	0	30
n-Propylbenzene	5	U	5.	1	ug/l	102	102	80-120	0	30
Styrene	5	U	5.	1	ug/l	104	103	80-120	0	30
1,1,1,2-Tetrachloroethane	5	U	5.	0.5	ug/l	103	101	80-120	2	30
1,1,2,2-Tetrachloroethane	5	U	5.	0.5	ug/l	89	92	70-120	4	30
Tetrachloroethene	5	U	5.	0.5	ug/l	107	108	80-120	1	30
Toluene	5	U	5.	0.5	ug/l	104	104	80-120	0	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	102	104	58-126	2	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	103	104	65-120	1	30
1,1,1-Trichloroethane	5	U	5.	0.5	ug/l	96	94	66-126	1	30
1,1,2-Trichloroethane	5	U	5.	0.5	ug/l	98	100	80-120	2	30
Trichloroethene	5	U	5.	0.5	ug/l	106	109	80-120	3	30
Trichlorofluoromethane	5	U	5.	0.5	ug/l	117	115	65-130	2	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	89	94	76-120	5	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	103	103	74-120	0	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	102	104	74-120	1	30
Vinyl Acetate	10	U	10.	2	ug/l	74	74	56-135	0	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476957
Reported: 07/21/14 at 03:45 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vinyl Chloride	5	U	5.	0.5	ug/l	111	112	63-120	1	30
m+p-Xylene	5	U	5.	0.5	ug/l	102	102	80-120	0	30
o-Xylene	5	U	5.	0.5	ug/l	102	102	80-120	0	30
Batch number: 14148162401C	Sample number(s): 7476636									
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: B141491AA	Sample number(s): 7476636 UNSPK: P475237								
Acetone	109	118	31-195	7	30				
Acrolein	87	71	10-165	22	30				
Acrylonitrile	75	82	48-139	8	30				
t-Amyl methyl ether	83	85	50-132	2	30				
Benzene	101	94	55-143	8	30				
Bromobenzene	109	92	43-139	18	30				
Bromochloromethane	118	110	60-137	8	30				
Bromodichloromethane	98	91	53-136	8	30				
Bromoform	94	91	50-144	4	30				
Bromomethane	121	111	42-168	9	30				
2-Butanone	85	93	37-163	8	30				
t-Butyl alcohol	95	88	47-153	8	30				
n-Butylbenzene	115	76	30-146	42*	30				
sec-Butylbenzene	109	88	33-157	23	30				
tert-Butylbenzene	108	86	41-152	23	30				
Carbon Disulfide	78	71	48-146	9	30				
Carbon Tetrachloride	109	100	51-165	9	30				
Chlorobenzene	105	93	49-135	13	30				
Chloroethane	114	106	39-152	8	30				
2-Chloroethyl Vinyl Ether	73	76	32-139	3	30				
Chloroform	111	105	61-142	7	30				
1-Chlorohexane	106	89	70-130	18	30				
Chloromethane	102	93	36-143	9	30				
2-Chlorotoluene	105	88	42-146	18	30				
4-Chlorotoluene	108	85	39-145	24	30				
Chlorotrifluoroethene	109	105	70-130	0	30				
1,2-Dibromo-3-chloropropane	79	74	34-165	7	30				
Dibromochloromethane	97	90	51-128	8	30				
1,2-Dibromoethane	95	91	54-129	5	30				
Dibromomethane	95	93	57-130	3	30				
1,2-Dichlorobenzene	111	89	36-133	24	30				
1,3-Dichlorobenzene	108	86	34-134	24	30				
1,4-Dichlorobenzene	108	83	35-136	27	30				
Dichlorodifluoromethane	106	102	26-151	5	30				
1,1-Dichloroethane	100	95	63-142	7	30				
1,2-Dichloroethane	108	104	54-143	5	30				
1,1-Dichloroethene	111	105	61-149	6	30				
cis-1,2-Dichloroethene	103	98	67-135	6	30				

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476957
Reported: 07/21/14 at 03:45 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
trans-1,2-Dichloroethene	111	103	64-144	9	30				
1,2-Dichloropropane	97	93	54-144	6	30				
1,3-Dichloropropane	94	89	51-140	6	30				
2,2-Dichloropropane	94	88	53-147	8	30				
1,1-Dichloropropene	106	97	54-145	10	30				
cis-1,3-Dichloropropene	88	86	45-137	3	30				
trans-1,3-Dichloropropene	85	82	51-134	5	30				
Ethyl t-butyl ether	85	87	58-124	2	30				
Ethylbenzene	102	91	44-141	13	30				
Freon 113	102	91	56-156	12	30				
Freon 133a	118	116	61-131	2	30				
Hexachlorobutadiene	127	75	10-155	53*	30				
2-Hexanone	74	81	32-160	8	30				
di-Isopropyl ether	91	90	59-133	3	30				
Isopropylbenzene	108	89	38-144	21	30				
p-Isopropyltoluene	103	79	29-152	28	30				
Methyl Iodide	106	99	52-139	8	30				
Methyl Tertiary Butyl Ether	86	90	55-129	4	30				
4-Methyl-2-pentanone	75	82	46-139	9	30				
Methylene Chloride	107	100	60-149	7	30				
n-Propylbenzene	111	88	39-157	23	30				
Styrene	105	90	35-134	16	30				
1,1,1,2-Tetrachloroethane	101	92	55-139	11	30				
1,1,2,2-Tetrachloroethane	88	87	29-182	2	30				
Tetrachloroethene	134	112	42-149	19	30				
Toluene	102	87	50-146	16	30				
1,2,3-Trichlorobenzene	104	75	10-140	33*	30				
1,2,4-Trichlorobenzene	102	73	10-136	33*	30				
1,1,1-Trichloroethane	99	93	52-146	7	30				
1,1,2-Trichloroethane	99	95	58-152	5	30				
Trichloroethene	105	97	53-144	9	30				
Trichlorofluoromethane	116	104	47-163	12	30				
1,2,3-Trichloropropane	95	91	36-180	5	30				
1,2,4-Trimethylbenzene	104	86	37-149	20	30				
1,3,5-Trimethylbenzene	109	87	38-150	24	30				
Vinyl Acetate	46	40	21-139	12	30				
Vinyl Chloride	111	100	50-154	11	30				
m+p-Xylene	104	88	44-137	18	30				
o-Xylene	101	89	42-137	14	30				
Batch number: 14148162401C Sample number(s): 7476636 BKG: P475537									
14a Moisture Content by 160.3						10.1	9.8	3	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12a Volatile Organics EPA8260B

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476957
Reported: 07/21/14 at 03:45 PM

Surrogate Quality Control

Batch number: B141491AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7476636	105	101	97	92
Blank	109	104	97	94
LCS	106	105	97	109
LCSD	106	103	98	102
MS	104	98	103	100
MSD	106	105	102	102
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141471AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7476635	103	100	98	95
Blank	101	100	99	96
LCS	101	99	100	100
LCSD	101	101	100	99
Limits:	86-118	80-120	88-110	86-115

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/23/2014

CarrierName: FedEx

AirbillNo: ~~770081777065~~ Sm52314
7700 8382 3163

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

A-13013
G-1476957
S-7476635-36

COC No: 20140523-03

Cooler #: 1

Lab: Lancaster

Lab Phone: 717-556-7259

Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488--09a	Other Analysis/Notes
TB2-052314	5/23/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																		X																	
SVL-536-SA5D-SB-1.8-2.3	5/23/14 10:54	SO	None	1 - 4 oz glass	10 day																		X																	soil moisture
SVL-536-SA5D-SB-1.8-2.3	5/23/14 10:54	SO	None	3 - Encore	10 day																		X																	

Special Instructions:

Sampler: Van Vathanasin

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[signature]	05/23/14	1300									
										5/24/14	0930

Soil Vapor

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 15546

Group Number(s): 1476957

Client: CDM Smith

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/24/2014 9:30
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	N/A		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Joseph Gruber (5200) at 10:51 on 05/24/2014

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT131	3.4	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 09, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/24/2014
Group Number: 1476958
SDG: PH199
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB3-052314 Water	7476637
SL-636-SA5A-TR-0.5 Soil	7476638
SL-636-SA5A-TR-3.5 Soil	7476639
SL-636-SA5A-TR-7.5 Soil	7476640

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: TB3-052314 Water
SSFL Phase 3 Subarea 5A

LL Sample # WW 7476637
LL Group # 1476958
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 08:00

Submitted: 05/24/2014 09:30
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB323 SDG#: PH199-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14149A94A	05/30/2014 01:54	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14149A94A	05/30/2014 01:54	Miranda P Tillinghast	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-636-SA5A-TR-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7476638
LL Group # 1476958
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 07:46 by RE

Submitted: 05/24/2014 09:30
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63605 SDG#: PH199-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.5	J	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	1.7	U	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.2	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.69	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: benzo(e)pyrene

Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.1	1
13099	PCB-1242	53469-21-9	17	U	17	4.1	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	8.4	J	17	4.5	1
13099	PCB-1260	11096-82-5	17	U	17	3.9	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-636-SA5A-TR-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7476638
LL Group # 1476958
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 07:46 by RE

Submitted: 05/24/2014 09:30
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63605 SDG#: PH199-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	13		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	43		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	6.0		5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	14		10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	10,300		40.0	7.20	1
06944	Antimony	7440-36-0	4.00	U	4.00	0.739	1
06935	Arsenic	7440-38-2	2.91	J	4.00	0.699	1
06946	Barium	7440-39-3	67.9		0.999	0.0330	1
06947	Beryllium	7440-41-7	0.380	J	0.999	0.0669	1
07914	Boron	7440-42-8	3.55	J	9.99	0.839	1
06949	Cadmium	7440-43-9	0.428	J	0.999	0.0759	1
01650	Calcium	7440-70-2	2,600		20.0	3.34	1
06951	Chromium	7440-47-3	11.5		3.00	0.160	1
06952	Cobalt	7440-48-4	3.62		0.999	0.0989	1
06953	Copper	7440-50-8	5.60		2.00	0.290	1
01654	Iron	7439-89-6	17,100		40.0	3.62	1
06955	Lead	7439-92-1	4.19		3.00	0.499	1
01656	Lithium	7439-93-2	24.1		4.0	0.34	1
01657	Magnesium	7439-95-4	3,440		9.99	1.67	1
06958	Manganese	7439-96-5	240		0.999	0.0829	1
06960	Molybdenum	7439-98-7	2.00	U	2.00	0.170	1
06961	Nickel	7440-02-0	6.13		2.00	0.130	1
10145	Phosphorus	7723-14-0	302		9.99	2.89	1
01662	Potassium	7440-09-7	2,840		99.9	8.33	1
01667	Sodium	7440-23-5	146		99.9	16.7	1
06969	Tin	7440-31-5	2.40	J	9.99	0.220	1
06970	Titanium	7440-32-6	958		0.999	0.170	1
06971	Vanadium	7440-62-2	24.0		0.999	0.130	1
06972	Zinc	7440-66-6	63.8		4.00	0.200	1
10146	Zirconium	7440-67-7	2.36	J	4.99	0.839	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.400	U	0.400	0.0999	2
06142	Silver	7440-22-4	0.200	U	0.200	0.0260	2
06144	Strontium	7440-24-6	11.2		0.400	0.0679	2
06145	Thallium	7440-28-0	0.264		0.200	0.0300	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0143	J	0.0167	0.0100	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-636-SA5A-TR-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7476638
LL Group # 1476958
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 07:46 by RE

Submitted: 05/24/2014 09:30
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63605 SDG#: PH199-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D	n.a.	8.39	0.0100	0.0100	1
	The pH was measured in water at 21.9 C.					
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	2.8	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: SL-636-SA5A-TR-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7476638
LL Group # 1476958
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 07:46 by RE

Submitted: 05/24/2014 09:30
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63605 SDG#: PH199-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.990	U	0.990	0.0447	1
11031	12378-PeCDD	40321-76-4	0.158	JBQ	4.95	0.0446	1
11031	123478-HxCDD	39227-28-6	0.0985	JBQ	4.95	0.0309	1
11031	123678-HxCDD	57653-85-7	0.214	JBQ	4.95	0.0319	1
11031	123789-HxCDD	19408-74-3	0.171	JB	4.95	0.0297	1
11031	1234678-HpCDD	35822-46-9	3.52	JB	4.95	0.0373	1
11031	OCDD	3268-87-9	39.1	B	9.90	0.0338	1
11031	2378-TCDF	51207-31-9	0.990	U	0.990	0.0515	1
11031	12378-PeCDF	57117-41-6	3.08	JB	4.95	0.0278	1
11031	23478-PeCDF	57117-31-4	0.178	JBQ	4.95	0.0286	1
11031	123478-HxCDF	70648-26-9	0.156	JB	4.95	0.0341	1
11031	123678-HxCDF	57117-44-9	0.218	JBQ	4.95	0.0290	1
11031	123789-HxCDF	72918-21-9	0.138	JB	4.95	0.0347	1
11031	234678-HxCDF	60851-34-5	0.134	JB	4.95	0.0330	1
11031	1234678-HpCDF	67562-39-4	0.686	JB	4.95	0.0173	1
11031	1234789-HpCDF	55673-89-7	0.0658	JB	4.95	0.0240	1
11031	OCDF	39001-02-0	1.56	JB	9.90	0.0425	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.207				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	90	25 - 164
13C12-12378-PeCDD	92	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	88	28 - 130
13C12-123789-HxCDD	88	28 - 130
13C12-1234678-HpCDD	83	23 - 140
13C12-OCDD	71	17 - 157
13C12-2378-TCDF	94	24 - 169
13C12-12378-PeCDF	96	24 - 185
13C12-23478-PeCDF	90	21 - 178
13C12-123478-HxCDF	77	26 - 152
13C12-123678-HxCDF	86	26 - 123
13C12-234678-HxCDF	79	28 - 136
13C12-123789-HxCDF	79	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	66	26 - 138
13C12-OCDF	55	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-636-SA5A-TR-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7476638
LL Group # 1476958
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 07:46 by RE

Submitted: 05/24/2014 09:30
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63605 SDG#: PH199-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-636-SA5A-TR-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7476638
LL Group # 1476958
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 07:46 by RE

Submitted: 05/24/2014 09:30
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63605 SDG#: PH199-02

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14155SLA026	06/06/2014 09:46	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	14155SLA026	06/05/2014 02:15	Sherry L Morrow	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141500023A	06/03/2014 00:11	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141500023A	05/31/2014 06:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141470033A	05/29/2014 21:50	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141470034A	05/31/2014 01:32	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141470034A	05/28/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141470033A	05/28/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14153005	06/05/2014 21:45	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14153005	06/02/2014 11:45	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141470637002	05/28/2014 21:52	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-636-SA5A-TR-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7476638
LL Group # 1476958
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 07:46 by RE

Submitted: 05/24/2014 09:30
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63605 SDG#: PH199-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	141470637002B	05/28/2014 19:45	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637002A	05/28/2014 19:45	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637002A	05/28/2014 19:45	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637002A	05/28/2014 19:45	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638002	06/04/2014 20:55	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637002	05/28/2014 07:39	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638002	06/02/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14144039402A	05/24/2014 13:10	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14147162401B	05/27/2014 17:27	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-636-SA5A-TR-3.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7476639
LL Group # 1476958
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 08:47 by RE

Submitted: 05/24/2014 09:30
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63635 SDG#: PH199-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.70	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.70	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.70	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.70	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.70	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: benzo(e)pyrene

GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1	U	1	0.2	23.15
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.2	1
13099	PCB-1242	53469-21-9	18	U	18	4.2	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.0	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-636-SA5A-TR-3.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7476639
LL Group # 1476958
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 08:47 by RE

Submitted: 05/24/2014 09:30
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63635 SDG#: PH199-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C21-C30)	n.a.	4.8	J	5.3	2.1	1
12952	EFH (C30-C40)	n.a.	18		11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,500		41.3	7.45	1
06944	Antimony	7440-36-0	4.13	U	4.13	0.764	1
06935	Arsenic	7440-38-2	3.49	J	4.13	0.723	1
06946	Barium	7440-39-3	111		1.03	0.0341	1
06947	Beryllium	7440-41-7	0.565	J	1.03	0.0692	1
07914	Boron	7440-42-8	4.61	J	10.3	0.868	1
06949	Cadmium	7440-43-9	0.590	J	1.03	0.0785	1
01650	Calcium	7440-70-2	2,620		20.7	3.45	1
06951	Chromium	7440-47-3	19.3		3.10	0.165	1
06952	Cobalt	7440-48-4	5.81		1.03	0.102	1
06953	Copper	7440-50-8	11.2		2.07	0.300	1
01654	Iron	7439-89-6	19,300		41.3	3.74	1
06955	Lead	7439-92-1	5.23		3.10	0.517	1
01656	Lithium	7439-93-2	20.0		4.1	0.35	1
01657	Magnesium	7439-95-4	4,090		10.3	1.73	1
06958	Manganese	7439-96-5	338		1.03	0.0857	1
06960	Molybdenum	7439-98-7	0.329	J	2.07	0.176	1
06961	Nickel	7440-02-0	11.7		2.07	0.134	1
10145	Phosphorus	7723-14-0	382		10.3	2.99	1
01662	Potassium	7440-09-7	4,110		103	8.62	1
01667	Sodium	7440-23-5	273		103	17.3	1
06969	Tin	7440-31-5	2.32	J	10.3	0.227	1
06970	Titanium	7440-32-6	1,080		1.03	0.176	1
06971	Vanadium	7440-62-2	33.9		1.03	0.134	1
06972	Zinc	7440-66-6	57.3		4.13	0.207	1
10146	Zirconium	7440-67-7	3.67	J	5.17	0.868	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.141	J	0.413	0.103	2
06142	Silver	7440-22-4	0.0338	J	0.207	0.0269	2
06144	Strontium	7440-24-6	24.3		0.413	0.0702	2
06145	Thallium	7440-28-0	0.325		0.207	0.0310	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0173	U	0.0173	0.0104	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-636-SA5A-TR-3.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7476639
LL Group # 1476958
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 08:47 by RE

Submitted: 05/24/2014 09:30
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63635 SDG#: PH199-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 22 C.	n.a.	8.45	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	5.1	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-636-SA5A-TR-3.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7476639
LL Group # 1476958
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 08:47 by RE

Submitted: 05/24/2014 09:30
Reported: 06/09/2014 13:54

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3201 Jermantown Road
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63635 SDG#: PH199-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0593 JBQ	1.02	0.0461	1
11031	12378-PeCDD	40321-76-4	0.134 JB	5.09	0.0362	1
11031	123478-HxCDD	39227-28-6	0.0278 JBQ	5.09	0.0261	1
11031	123678-HxCDD	57653-85-7	0.291 JBQ	5.09	0.0281	1
11031	123789-HxCDD	19408-74-3	0.545 JB	5.09	0.0268	1
11031	1234678-HpCDD	35822-46-9	0.320 JB	5.09	0.0264	1
11031	OCDD	3268-87-9	3.87 JB	10.2	0.0227	1
11031	2378-TCDF	51207-31-9	1.02 U	1.02	0.0401	1
11031	12378-PeCDF	57117-41-6	0.184 JB	5.09	0.0175	1
11031	23478-PeCDF	57117-31-4	0.0749 JB	5.09	0.0194	1
11031	123478-HxCDF	70648-26-9	0.0765 JB	5.09	0.0238	1
11031	123678-HxCDF	57117-44-9	5.09 U	5.09	0.0197	1
11031	123789-HxCDF	72918-21-9	0.282 JBQ	5.09	0.0289	1
11031	234678-HxCDF	60851-34-5	0.0307 JBQ	5.09	0.0227	1
11031	1234678-HpCDF	67562-39-4	0.128 JBQ	5.09	0.0107	1
11031	1234789-HpCDF	55673-89-7	0.0309 JBQ	5.09	0.0223	1
11031	OCDF	39001-02-0	0.195 JBQ	10.2	0.0504	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.229			1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	84	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	78	23 - 140
13C12-OCDD	68	17 - 157
13C12-2378-TCDF	78	24 - 169
13C12-12378-PeCDF	90	24 - 185
13C12-23478-PeCDF	77	21 - 178
13C12-123478-HxCDF	66	26 - 152
13C12-123678-HxCDF	79	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	60	29 - 147
13C12-1234678-HpCDF	94	28 - 143
13C12-1234789-HpCDF	51	26 - 138
13C12-OCDF	41	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-636-SA5A-TR-3.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7476639
LL Group # 1476958
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 08:47 by RE

Submitted: 05/24/2014 09:30
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63635 SDG#: PH199-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-636-SA5A-TR-3.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7476639
LL Group # 1476958
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 08:47 by RE

Submitted: 05/24/2014 09:30
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63635 SDG#: PH199-03

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14155SLA026	06/06/2014 07:38	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	14155SLA026	06/05/2014 02:15	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147C16A	05/30/2014 04:15	Marie D Beamenderfer	23.15
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414434616	05/24/2014 19:02	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414434616	05/24/2014 19:03	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141500023A	06/03/2014 00:29	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141500023A	05/31/2014 06:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141470033A	05/29/2014 20:23	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141470034A	05/31/2014 00:27	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141470034A	05/28/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141470033A	05/28/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14153005	06/05/2014 22:42	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14153005	06/02/2014 11:45	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-636-SA5A-TR-3.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7476639
LL Group # 1476958
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 08:47 by RE

Submitted: 05/24/2014 09:30
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63635 SDG#: PH199-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141470637002	05/28/2014 21:56	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141470637002B	05/28/2014 19:47	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637002A	05/28/2014 19:47	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637002A	05/28/2014 19:47	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637002A	05/28/2014 19:47	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638002	06/04/2014 20:57	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637002	05/28/2014 07:39	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638002	06/02/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14144039402A	05/24/2014 13:10	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14147162401B	05/27/2014 17:27	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-636-SA5A-TR-7.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7476640
LL Group # 1476958
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 08:41 by RE

Submitted: 05/24/2014 09:30
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63675 SDG#: PH199-04*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.71	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.71	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.71	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.71	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.71	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.71	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.4	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.4	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.71	1
12969	Diethylphthalate	84-66-2	19	U	19	6.4	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.4	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.4	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.71	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.71	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.71	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.71	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.71	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.71	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.71	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.4	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.71	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.71	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	24.8
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-636-SA5A-TR-7.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7476640
LL Group # 1476958
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 08:41 by RE

Submitted: 05/24/2014 09:30
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63675 SDG#: PH199-04*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C21-C30)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	20,000		42.0	7.58	1
06944	Antimony	7440-36-0	4.20	U	4.20	0.778	1
06935	Arsenic	7440-38-2	9.15		4.20	0.736	1
06946	Barium	7440-39-3	121		1.05	0.0347	1
06947	Beryllium	7440-41-7	0.915	J	1.05	0.0704	1
07914	Boron	7440-42-8	6.78	J	10.5	0.883	1
06949	Cadmium	7440-43-9	0.711	J	1.05	0.0799	1
01650	Calcium	7440-70-2	4,310		21.0	3.51	1
06951	Chromium	7440-47-3	33.4		3.15	0.168	1
06952	Cobalt	7440-48-4	11.7		1.05	0.104	1
06953	Copper	7440-50-8	16.7		2.10	0.305	1
01654	Iron	7439-89-6	30,400		84.1	7.61	2
06955	Lead	7439-92-1	9.08		3.15	0.526	1
01656	Lithium	7439-93-2	38.7		4.2	0.36	1
01657	Magnesium	7439-95-4	6,790		10.5	1.76	1
06958	Manganese	7439-96-5	666		1.05	0.0872	1
06960	Molybdenum	7439-98-7	0.261	J	2.10	0.179	1
06961	Nickel	7440-02-0	20.2		2.10	0.137	1
10145	Phosphorus	7723-14-0	449		10.5	3.04	1
01662	Potassium	7440-09-7	2,680		105	8.77	1
01667	Sodium	7440-23-5	122		105	17.6	1
06969	Tin	7440-31-5	3.26	J	10.5	0.231	1
06970	Titanium	7440-32-6	1,260		1.05	0.179	1
06971	Vanadium	7440-62-2	55.5		1.05	0.137	1
06972	Zinc	7440-66-6	72.1		4.20	0.210	1
10146	Zirconium	7440-67-7	4.60	J	5.26	0.883	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.129	J	0.420	0.105	2
06142	Silver	7440-22-4	0.0811	J	0.210	0.0273	2
06144	Strontium	7440-24-6	26.2		0.420	0.0715	2
06145	Thallium	7440-28-0	0.341		0.210	0.0315	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0174	U	0.0174	0.0104	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-636-SA5A-TR-7.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7476640
LL Group # 1476958
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 08:41 by RE

Submitted: 05/24/2014 09:30
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63675 SDG#: PH199-04*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 22.1 C.	n.a.	7.67	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	5.8	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-636-SA5A-TR-7.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7476640
LL Group # 1476958
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 08:41 by RE

Submitted: 05/24/2014 09:30
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63675 SDG#: PH199-04*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.02 U	1.02	0.0553	1
11031	12378-PeCDD	40321-76-4	5.12 U	5.12	0.0333	1
11031	123478-HxCDD	39227-28-6	0.0281 JBQ	5.12	0.0223	1
11031	123678-HxCDD	57653-85-7	0.0595 JBQ	5.12	0.0235	1
11031	123789-HxCDD	19408-74-3	0.0663 JBQ	5.12	0.0226	1
11031	1234678-HpCDD	35822-46-9	0.0665 JBQ	5.12	0.0270	1
11031	OCDD	3268-87-9	0.598 JB	10.2	0.0205	1
11031	2378-TCDF	51207-31-9	1.02 U	1.02	0.0403	1
11031	12378-PeCDF	57117-41-6	0.0362 JBQ	5.12	0.0164	1
11031	23478-PeCDF	57117-31-4	0.0342 JBQ	5.12	0.0176	1
11031	123478-HxCDF	70648-26-9	0.0419 JB	5.12	0.0218	1
11031	123678-HxCDF	57117-44-9	0.0544 JBQ	5.12	0.0191	1
11031	123789-HxCDF	72918-21-9	0.0904 JBQ	5.12	0.0258	1
11031	234678-HxCDF	60851-34-5	0.0258 JBQ	5.12	0.0204	1
11031	1234678-HpCDF	67562-39-4	0.0678 JB	5.12	0.00919	1
11031	1234789-HpCDF	55673-89-7	0.0440 JB	5.12	0.0174	1
11031	OCDF	39001-02-0	0.147 JBQ	10.2	0.0483	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.00549			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	81	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	86	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	84	23 - 140
13C12-OCDD	76	17 - 157
13C12-2378-TCDF	80	24 - 169
13C12-12378-PeCDF	90	24 - 185
13C12-23478-PeCDF	80	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	83	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	69	29 - 147
13C12-1234678-HpCDF	98	28 - 143
13C12-1234789-HpCDF	58	26 - 138
13C12-OCDF	50	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-636-SA5A-TR-7.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7476640
LL Group # 1476958
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 08:41 by RE

Submitted: 05/24/2014 09:30
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63675 SDG#: PH199-04*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-636-SA5A-TR-7.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7476640
LL Group # 1476958
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 08:41 by RE

Submitted: 05/24/2014 09:30
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63675 SDG#: PH199-04*

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14155SLA026	06/06/2014 08:10	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	14155SLA026	06/05/2014 02:15	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14147C16A	05/30/2014 04:53	Marie D Beamenderfer	24.8
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414434616	05/24/2014 19:01	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414434616	05/24/2014 19:01	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141500023A	06/03/2014 00:48	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141500023A	05/31/2014 06:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141470033A	05/28/2014 21:58	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141470034A	05/31/2014 00:49	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141470034A	05/28/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141470033A	05/28/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14153005	06/05/2014 23:38	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14153005	06/02/2014 11:45	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141470637002	05/28/2014 22:08	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141470637002	05/28/2014 22:08	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141470637002	05/28/2014 22:08	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141470637002	05/28/2014 22:08	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141470637002	05/28/2014 22:08	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141470637002	05/28/2014 22:08	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141470637002	05/28/2014 22:08	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141470637002	05/28/2014 22:08	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141470637002	05/28/2014 22:08	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141470637002	05/28/2014 22:08	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141470637002	05/28/2014 22:08	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141470637002	05/29/2014 08:01	Joanne M Gates	2
06955	Lead	SW-846 6010C	1	141470637002	05/28/2014 22:08	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141470637002	05/28/2014 22:08	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141470637002	05/28/2014 22:08	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141470637002	05/28/2014 22:08	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141470637002	05/28/2014 22:08	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141470637002	05/28/2014 22:08	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141470637002	05/28/2014 22:08	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141470637002	05/28/2014 22:08	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141470637002	05/28/2014 22:08	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	141470637002	05/28/2014 22:08	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-636-SA5A-TR-7.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7476640
LL Group # 1476958
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/23/2014 08:41 by RE

Submitted: 05/24/2014 09:30
Reported: 06/09/2014 13:54

CDM Federal Programs Corp.
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Fairfax VA 22030

63675 SDG#: PH199-04*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010C	1	141470637002	05/28/2014 22:08	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141470637002	05/28/2014 22:08	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141470637002	05/28/2014 22:08	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141470637002	05/28/2014 22:08	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141470637002B	05/28/2014 19:54	John P Hook	2
06142	Silver	SW-846 6020A	1	141470637002A	05/28/2014 19:54	John P Hook	2
06144	Strontium	SW-846 6020A	1	141470637002A	05/28/2014 19:54	John P Hook	2
06145	Thallium	SW-846 6020A	1	141470637002A	05/28/2014 19:54	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	141480638002	06/04/2014 21:03	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141470637002	05/28/2014 07:39	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141480638002	06/02/2014 01:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14144039402A	05/24/2014 13:10	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14147162401B	05/27/2014 17:27	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476958
Reported: 06/09/14 at 01:54 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14155SLA026	Sample number(s): 7476638-7476640									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	113		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	106		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	111		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	98		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	89		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	101		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	80*		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	99		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	84		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	100		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	105		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	91		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	105		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	96		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	85		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	101		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	106		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	103		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	99		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	97		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	102		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	99		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	89		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	100		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	102		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	88		80-119		
Batch number: 14147C16A	Sample number(s): 7476639-7476640									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	70		67-120		
Batch number: 14149A94A	Sample number(s): 7476637									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	96	95	80-133	1	30
Batch number: 141500023A	Sample number(s): 7476638-7476640									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	82	86	36-106	5	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	97		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476958
Reported: 06/09/14 at 01:54 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1260	17	U	17.	3.9	ug/kg	98		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141470033A	Sample number(s): 7476638-7476640									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	87		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	89		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	90		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	78		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	74		60-115		
Batch number: 141470034A	Sample number(s): 7476638-7476640									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	86		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	90		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	90		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	80		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	62		60-115		
Batch number: 141470637002	Sample number(s): 7476638-7476640									
Aluminum	9.28	J	40.0	7.21	mg/kg	110		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	107		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	105		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	103		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	103		80-120		
Boron	0.858	J	10.0	0.840	mg/kg	102		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	106		80-120		
Calcium	12.8	J	20.0	3.34	mg/kg	106		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	103		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	107		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	106		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	106		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	107		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	107		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	102		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	105		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	105		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	110		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	106		80-120		
Potassium	100 U		100.	8.34	mg/kg	103		80-120		
Sodium	100 U		100.	16.7	mg/kg	102		80-120		
Tin	1.36	J	10.0	0.220	mg/kg	104		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	104		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	106		80-120		
Zinc	0.956	J	4.00	0.200	mg/kg	105		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	105		80-120		
Batch number: 141470637002A	Sample number(s): 7476638-7476640									
Silver	0.200	U	0.200	0.0260	mg/kg	113		80-120		
Strontium	0.400	U	0.400	0.0680	mg/kg	115		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	108		80-120		
Batch number: 141470637002B	Sample number(s): 7476638-7476640									
Selenium	0.400	U	0.400	0.100	mg/kg	112		80-120		

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476958
Reported: 06/09/14 at 01:54 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 141480638002	Sample number(s): 7476638-7476640								
3a Mercury 7471A	0.0167 U	0.0167	0.0100	mg/kg	85		85-120		
Batch number: 14144039402A	Sample number(s): 7476638-7476640								
15a pH by 9045D					100		95-105		
Batch number: 14147162401B	Sample number(s): 7476638-7476640								
14a Moisture Content by 160.3					100		80-120		

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14153005	Sample number(s): 7476638-7476640								
2378-TCDD	0.0448 J	1.00	0.0438	ng/kg	105		67-158		
12378-PeCDD	0.0540 J	5.00	0.0302	ng/kg	98		70-142		
123478-HxCDD	0.0830 J	5.00	0.0221	ng/kg	94		70-164		
123678-HxCDD	0.0643 J	5.00	0.0226	ng/kg	95		76-134		
123789-HxCDD	0.0684 J	5.00	0.0211	ng/kg	93		64-162		
1234678-HpCDD	0.0893 J	5.00	0.0218	ng/kg	92		70-140		
OCDD	0.452 J	10.0	0.0279	ng/kg	88		78-144		
2378-TCDF	0.0491 J	1.00	0.0294	ng/kg	104		75-158		
12378-PeCDF	0.103 J	5.00	0.0131	ng/kg	95		80-134		
23478-PeCDF	0.105 J	5.00	0.0135	ng/kg	96		68-160		
123478-HxCDF	0.0629 J	5.00	0.0176	ng/kg	93		72-134		
123678-HxCDF	0.0439 J	5.00	0.0167	ng/kg	93		84-130		
123789-HxCDF	0.0800 J	5.00	0.0195	ng/kg	92		78-130		
234678-HxCDF	0.0522 J	5.00	0.0168	ng/kg	94		70-156		
1234678-HpCDF	0.0727 J	5.00	0.00876	ng/kg	91		82-122		
1234789-HpCDF	0.0705 J	5.00	0.0145	ng/kg	92		78-138		
OCDF	0.182 J	10.0	0.0366	ng/kg	89		63-170		
TEQ WHO 2005 - EDLx0.0	0.0529			ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14155SLA026	Sample number(s): 7476638-7476640 UNSPK: P475537								
Acenaphthene	109	109	48-127	1	30				
Acenaphthylene	101	101	60-128	0	30				
Anthracene	105	102	52-126	2	30				
Benzo(a)anthracene	94	94	44-143	1	30				
Benzo(a)pyrene	84	84	49-137	0	30				
Benzo(b)fluoranthene	94	93	26-142	1	30				
Benzo(e)pyrene	76	76	63-111	0	30				
Benzo(g,h,i)perylene	96	95	33-141	1	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476958
Reported: 06/09/14 at 01:54 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Benzo(k)fluoranthene	81	81	49-144	0	30				
Butylbenzylphthalate	98	97	64-156	1	30				
Di-n-butylphthalate	98	99	52-147	0	30				
Chrysene	89	89	43-141	0	30				
Dibenz(a,h)anthracene	101	102	25-145	0	30				
Diethylphthalate	90	91	66-140	0	30				
Dimethylphthalate	82	80	70-123	3	30				
Bis(2-Ethylhexyl)phthalate	101	99	48-164	2	30				
Fluoranthene	96	96	38-153	0	30				
Fluorene	97	96	57-130	1	30				
Indeno(1,2,3-cd)pyrene	96	95	26-139	1	30				
1-Methylnaphthalene	94	93	59-139	1	30				
2-Methylnaphthalene	99	99	46-147	0	30				
Naphthalene	96	94	52-136	2	30				
N-Nitrosodimethylamine	86	87	39-134	0	30				
Di-n-octylphthalate	100	100	52-162	0	30				
Phenanthrene	99	97	50-137	2	30				
Pyrene	83	83	26-143	0	30				
Batch number: 14147C16A	Sample number(s): 7476639-7476640 UNSPK: P475537								
11a TPH by EPA 8015B GRO	74	87	69-123	21	30				
Batch number: 141500023A	Sample number(s): 7476638-7476640 UNSPK: P476634								
PCB-1016	95	96	41-135	1	50				
PCB-1260	94	99	40-134	5	50				
Batch number: 141470033A	Sample number(s): 7476638-7476640 UNSPK: P475537								
EFH (C12-C14)	82	91	49-123	9	20				
EFH (C15-C20)	85	95	49-123	9	20				
EFH (C21-C30)	86	96	49-123	10	20				
EFH (C30-C40)	69	74	49-123	6	20				
EFH (C8-C11)	73	83	49-123	12	20				
Batch number: 141470034A	Sample number(s): 7476638-7476640 UNSPK: P475537								
EFH C12-C14 w/ SiGel	72	81	49-123	11	20				
EFH C15-C20 w/ SiGel	74	83	49-123	10	20				
EFH C21-C30 w/ SiGel	75	84	49-123	10	20				
EFH C30-C40 w/ SiGel	68	75	49-123	8	20				
EFH C8-C11 w/ SiGel	56	65	49-123	15	20				
Batch number: 141470637002	Sample number(s): 7476638-7476640 UNSPK: P471505 BKG: P471505								
Aluminum	372 (2)	821 (2)	75-125	6	20	15,100	13,200	13	20
Antimony	52*	51*	75-125	2	20	4.00 U	4.00 U	0 (1)	20
Arsenic	96	96	75-125	2	20	4.11	3.09 J	28* (1)	20
Barium	35*	37*	75-125	2	20	230	94.1	84*	20
Beryllium	101	102	75-125	3	20	0.562 J	0.486 J	15 (1)	20
Boron	98	98	75-125	3	20	6.78 J	4.93 J	32* (1)	20
Cadmium	97	97	75-125	3	20	0.549 J	0.491 J	11 (1)	20
Calcium	149 (2)	103 (2)	75-125	5	20	2,920	2,520	15	20
Chromium	81	89	75-125	5	20	20.4	16.4	22*	20
Cobalt	96	97	75-125	4	20	5.22	5.04	4	20
Copper	102	105	75-125	4	20	10.3	8.93	14 (1)	20

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476958
Reported: 06/09/14 at 01:54 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Iron	-2173 (2)	-1295 (2)	75-125	5	20	18,600	17,400	7	20
Lead	98	93	75-125	2	20	6.89	5.48	23* (1)	20
Lithium	99	101	75-125	4	20	21.7	20.3	7	20
Magnesium	-196 (2)	-75 (2)	75-125	6	20	4,220	3,840	9	20
Manganese	156 (2)	119 (2)	75-125	5	20	291	294	1	20
Molybdenum	95	96	75-125	3	20	0.441 J	0.329 J	29* (1)	20
Nickel	96	97	75-125	4	20	11.0	10.8	3	20
Phosphorus	106	38*	75-125	15	20	372	354	5	20
Potassium	108	109	75-125	1	20	3,220	3,070	5	20
Sodium	95	96	75-125	4	20	111	102	8 (1)	20
Tin	90	90	75-125	3	20	2.39 J	2.23 J	7 (1)	20
Titanium	150 (2)	258 (2)	75-125	9	20	1,070	994	8	20
Vanadium	97	102	75-125	5	20	34.9	30.6	13	20
Zinc	93	89	75-125	1	20	56.3	52.0	8	20
Zirconium	98	98	75-125	4	20	3.99 J	4.08 J	2 (1)	20
Batch number: 141470637002A	Sample number(s): 7476638-7476640 UNSPK: P471505 BKG: P471505								
Silver	105	102	75-125	0	20	0.0276 J	0.0297 J	8 (1)	20
Strontium	106	92	75-125	3	20	22.8	19.7	15	20
Thallium	120	112	75-125	2	20	0.256	0.252	1 (1)	20
Batch number: 141470637002B	Sample number(s): 7476638-7476640 UNSPK: P471505 BKG: P471505								
Selenium	99	99	75-125	3	20	0.137 J	0.118 J	15 (1)	20
Batch number: 141480638002	Sample number(s): 7476638-7476640 UNSPK: P475537 BKG: P475537								
3a Mercury 7471A	91	92	65-135	2	20	0.0111 J	0.0105 J	6 (1)	20
Batch number: 14144039402A	Sample number(s): 7476638-7476640 BKG: P476634								
15a pH by 9045D						7.45	7.48	0	3
Batch number: 14147162401B	Sample number(s): 7476638-7476640 BKG: P473396								
14a Moisture Content by 160.3						12.9	13.8	6	20
Batch number: 14153005	Sample number(s): 7476638-7476640 UNSPK: P475537								
2378-TCDD	102	103	40-135	1	20				
12378-PeCDD	101	101	40-135	1	20				
123478-HxCDD	96	95	40-135	3	20				
123678-HxCDD	95	97	40-135	1	20				
123789-HxCDD	96	96	40-135	1	20				
1234678-HpCDD	80	84	40-135	4	20				
OCDD	-15*	-4*	40-135	9	20				
2378-TCDF	106	105	40-135	3	20				
12378-PeCDF	96	95	40-135	3	20				
23478-PeCDF	97	98	40-135	0	20				
123478-HxCDF	92	94	40-135	1	20				
123678-HxCDF	94	93	40-135	2	20				
123789-HxCDF	91	93	40-135	1	20				
234678-HxCDF	94	94	40-135	1	20				
1234678-HpCDF	87	87	40-135	1	20				
1234789-HpCDF	91	92	40-135	0	20				

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476958
Reported: 06/09/14 at 01:54 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
OCDF	87	89	40-135	1	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14155SLA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7476638	103	115	92
7476639	101	112	89
7476640	101	117	93
Blank	106	122*	93
LCS	107	123*	94
MS	98	114	91
MSD	98	114	92
Limits:	59-115	61-118	70-127

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 14147C16A

	Trifluorotoluene-F
7476639	99
7476640	84
Blank	90
LCS	86
MS	83
MSD	83
Limits:	50-142

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14149A94A

	Trifluorotoluene-F
7476637	82
Blank	82
LCS	91
LCSD	90
Limits:	63-135

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141500023A

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476958
Reported: 06/09/14 at 01:54 PM

Surrogate Quality Control

	Tetrachloro-m-xylene	Decachlorobiphenyl
7476638	104	94
7476639	96	88
7476640	111	101
Blank	115	102
LCS	111	101
LCSD	119	104
MS	107	101
MSD	108	105
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141470033A

	Chlorobenzene	Orthoterphenyl
7476638	77	87
7476639	85	104
7476640	78	86
Blank	79	90
LCS	75	88
MS	72	83
MSD	80	90
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141470034A

	Chlorobenzene	Orthoterphenyl
7476638	78	84
7476639	80	91
7476640	78	86
Blank	67	80
LCS	77	88
MS	68	75
MSD	77	83
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 14153005

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7476638	90	92	84	88	88	83
7476639	78	84	81	81	81	78
7476640	81	85	86	87	87	84
Blank	91	95	90	91	92	82
MS	77	87	82	85	85	82
MSD	82	89	84	83	86	81
OPR	76	83	79	77	80	70
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1476958
Reported: 06/09/14 at 01:54 PM

Surrogate Quality Control

7476638	71	94	96	90	77	86
7476639	68	78	90	77	66	79
7476640	76	80	90	80	70	83
Blank	69	97	103	98	84	91
MS	76	80	95	89	74	84
MSD	76	84	101	89	74	86
OPR	60	82	90	84	72	79
Limits:	17-157	24-169	24-185	21-178	26-152	26-123

	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF
7476638	79	79	88	66	55
7476639	68	60	94	51	41
7476640	73	69	98	58	50
Blank	86	83	99	67	55
MS	78	75	99	65	57
MSD	77	75	103	61	53
OPR	75	72	86	58	47
Limits:	28-136	29-147	28-143	26-138	17-157

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/23/2014

CarrierName: FedEx

AirbillNo: ~~7700 8177 7065~~ ~~SM52314~~
7700 8382 3163

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

A-13013
G-1476958
S-7476637-40

COC No: 20140523-01

Cooler #: 1

Lab: Lancaster

Lab Phone: 717-556-7259

Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488--09a	Other Analysis/Notes
TB3-052314	5/23/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																			X															
SL-636-SA5A-TR-0.5	5/23/14 07:46	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X							X														
SL-636-SA5A-TR-3.5	5/23/14 08:47	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X							X														
SL-636-SA5A-TR-3.5	5/23/14 08:47	SO	None	2 - Encore	10 day																			X														
SL-636-SA5A-TR-7.5	5/23/14 08:41	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X							X														
SL-636-SA5A-TR-7.5	5/23/14 08:41	SO	None	2 - Encore	10 day																			X														

Special Instructions: For all EFH, silica gel clean up required on half the extract. Analyze both extracts for EFH.

Sampler: Rob Ellis

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[signature]	05/23/2014	1300									
									[signature]	5/24/14	0730

TRENCHING

1 of 1

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 15546

Group Number(s): 1476958

Client: CDM Smith

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/24/2014 9:30
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	N/A		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Joseph Gruber (5200) at 10:51 on 05/24/2014

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT131	3.4	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 09, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/28/2014
Group Number: 1477505
SDG: PH200
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SVL-546-SA5D-SB-5.0-6.0 Soil	7479336
SVL-550-SA5D-SB-5.0-6.0 Soil	7479337
TB2-052714 Water	7479338
SVL-532-SA5D-SB-4.0-4.5 Soil	7479339

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: SVL-546-SA5D-SB-5.0-6.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7479336
LL Group # 1477505
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 11:03 by VV

Submitted: 05/28/2014 11:15
Reported: 06/09/2014 15:18

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

5465D SDG#: PH200-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	21	U	21	7	0.89
10237	Acrolein	107-02-8	100	U	100	21	0.89
10237	Acrylonitrile	107-13-1	21	U	21	4	0.89
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.89
10237	Benzene	71-43-2	5	U	5	0.5	0.89
10237	Bromobenzene	108-86-1	5	U	5	1	0.89
10237	Bromochloromethane	74-97-5	5	U	5	1	0.89
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.89
10237	Bromoform	75-25-2	5	U	5	1	0.89
10237	Bromomethane	74-83-9	5	U	5	2	0.89
10237	2-Butanone	78-93-3	10	U	10	4	0.89
10237	t-Butyl alcohol	75-65-0	51	U	51	21	0.89
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.89
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.89
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.89
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.89
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.89
10237	Chlorobenzene	108-90-7	5	U	5	1	0.89
10237	Chloroethane	75-00-3	5	U	5	2	0.89
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.89
10237	Chloroform	67-66-3	5	U	5	1	0.89
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.89
10237	Chloromethane	74-87-3	5	U	5	2	0.89
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.89
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.89
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.89
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.89
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.89
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.89
10237	Dibromomethane	74-95-3	5	U	5	1	0.89
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.89
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.89
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.89
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.89
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.89
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.89
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.89
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.89
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.89
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.89
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.89
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.89
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.89
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.89
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.89
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.89
10237	Ethylbenzene	100-41-4	5	U	5	1	0.89
10237	Freon 113	76-13-1	5	U	5	2	0.89
10237	Freon 133a	75-88-7	5	U	5	2	0.89
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.89
10237	2-Hexanone	591-78-6	10	U	10	3	0.89

*=This limit was used in the evaluation of the final result

Sample Description: SVL-546-SA5D-SB-5.0-6.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7479336
LL Group # 1477505
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 11:03 by VV

Submitted: 05/28/2014 11:15
Reported: 06/09/2014 15:18

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

5465D SDG#: PH200-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.89
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.89
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.89
10237	Methyl Iodide	74-88-4	5	U	5	3	0.89
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.89
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.89
10237	Methylene Chloride	75-09-2	5	U	5	2	0.89
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.89
10237	Styrene	100-42-5	5	U	5	1	0.89
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.89
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.89
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.89
10237	Toluene	108-88-3	5	U	5	1	0.89
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.89
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.89
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.89
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.89
10237	Trichloroethene	79-01-6	5	U	5	1	0.89
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.89
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.89
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.89
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.89
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.89
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.89
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.89
10237	o-Xylene	95-47-6	5	U	5	1	0.89
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	13.1		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141562AA	06/06/2014 00:53	Andrea E Lando	0.89
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201414834624	05/28/2014 16:33	Lisa J Cooke	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-546-SA5D-SB-5.0-6.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7479336
LL Group # 1477505
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 11:03 by VV

Submitted: 05/28/2014 11:15
Reported: 06/09/2014 15:18

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

5465D SDG#: PH200-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201414834624	05/28/2014 16:33	Lisa J Cooke	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201414834624	05/28/2014 16:23	Lisa J Cooke	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14154162401A	06/03/2014 19:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-550-SA5D-SB-5.0-6.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7479337
LL Group # 1477505
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 09:02 by VV

Submitted: 05/28/2014 11:15
Reported: 06/09/2014 15:18

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

5505D SDG#: PH200-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	20	U	20	7	0.91
10237	Acrolein	107-02-8	100	U	100	20	0.91
10237	Acrylonitrile	107-13-1	20	U	20	4	0.91
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.91
10237	Benzene	71-43-2	5	U	5	0.5	0.91
10237	Bromobenzene	108-86-1	5	U	5	1	0.91
10237	Bromochloromethane	74-97-5	5	U	5	1	0.91
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.91
10237	Bromoform	75-25-2	5	U	5	1	0.91
10237	Bromomethane	74-83-9	5	U	5	2	0.91
10237	2-Butanone	78-93-3	10	U	10	4	0.91
10237	t-Butyl alcohol	75-65-0	51	U	51	20	0.91
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.91
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.91
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.91
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.91
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.91
10237	Chlorobenzene	108-90-7	5	U	5	1	0.91
10237	Chloroethane	75-00-3	5	U	5	2	0.91
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.91
10237	Chloroform	67-66-3	5	U	5	1	0.91
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.91
10237	Chloromethane	74-87-3	5	U	5	2	0.91
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.91
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.91
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.91
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.91
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.91
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.91
10237	Dibromomethane	74-95-3	5	U	5	1	0.91
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.91
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.91
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.91
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.91
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.91
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.91
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.91
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.91
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.91
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.91
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.91
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.91
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.91
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.91
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.91
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.91
10237	Ethylbenzene	100-41-4	5	U	5	1	0.91
10237	Freon 113	76-13-1	5	U	5	2	0.91
10237	Freon 133a	75-88-7	5	U	5	2	0.91
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.91
10237	2-Hexanone	591-78-6	10	U	10	3	0.91

*=This limit was used in the evaluation of the final result

Sample Description: SVL-550-SA5D-SB-5.0-6.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7479337
LL Group # 1477505
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 09:02 by VV

Submitted: 05/28/2014 11:15
Reported: 06/09/2014 15:18

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

5505D SDG#: PH200-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.91
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.91
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.91
10237	Methyl Iodide	74-88-4	5	U	5	3	0.91
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.91
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.91
10237	Methylene Chloride	75-09-2	5	U	5	2	0.91
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.91
10237	Styrene	100-42-5	5	U	5	1	0.91
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.91
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.91
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.91
10237	Toluene	108-88-3	5	U	5	1	0.91
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.91
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.91
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.91
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.91
10237	Trichloroethene	79-01-6	5	U	5	1	0.91
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.91
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.91
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.91
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.91
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.91
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.91
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.91
10237	o-Xylene	95-47-6	5	U	5	1	0.91
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	11.2		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141562AA	06/06/2014 01:16	Andrea E Lando	0.91
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201414834624	05/28/2014 16:33	Lisa J Cooke	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-550-SA5D-SB-5.0-6.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7479337
LL Group # 1477505
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 09:02 by VV

Submitted: 05/28/2014 11:15
Reported: 06/09/2014 15:18

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

5505D SDG#: PH200-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201414834624	05/28/2014 16:33	Lisa J Cooke	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201414834624	05/28/2014 16:25	Lisa J Cooke	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14154162401A	06/03/2014 19:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: TB2-052714 Water
SSFL Phase 3 Subarea 5D

LL Sample # WW 7479338
LL Group # 1477505
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 08:00

Submitted: 05/28/2014 11:15
Reported: 06/09/2014 15:18

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB227 SDG#: PH200-03TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	1	U	1	0.5	1
10335	Benzene	71-43-2	1	U	1	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	1	U	1	0.5	1
10335	Bromoform	75-25-2	4	U	4	0.5	1
10335	Bromomethane	74-83-9	1	U	1	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	1	U	1	0.5	1
10335	Chlorobenzene	108-90-7	1	U	1	0.5	1
10335	Chloroethane	75-00-3	1	U	1	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	1	U	1	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	1	U	1	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	1	U	1	0.5	1
10335	1,2-Dibromoethane	106-93-4	1	U	1	0.5	1
10335	Dibromomethane	74-95-3	1	U	1	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	1	U	1	0.5	1
10335	1,1-Dichloroethane	75-34-3	1	U	1	0.5	1
10335	1,2-Dichloroethane	107-06-2	1	U	1	0.5	1
10335	1,1-Dichloroethene	75-35-4	1	U	1	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	1	U	1	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	1	U	1	0.5	1
10335	1,2-Dichloropropane	78-87-5	1	U	1	0.5	1
10335	1,3-Dichloropropane	142-28-9	1	U	1	0.5	1
10335	2,2-Dichloropropane	594-20-7	1	U	1	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	1	U	1	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	1	U	1	0.5	1
10335	Ethyl t-butyl ether	637-92-3	1	U	1	0.5	1
10335	Ethylbenzene	100-41-4	1	U	1	0.5	1
10335	Freon 113	76-13-1	10	U	10	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: TB2-052714 Water
SSFL Phase 3 Subarea 5D

LL Sample # WW 7479338
LL Group # 1477505
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 08:00

Submitted: 05/28/2014 11:15
Reported: 06/09/2014 15:18

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB227 SDG#: PH200-03TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	1	U	1	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	1	U	1	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	1	U	1	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	3	U	3	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	1	U	1	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	1	U	1	0.5	1
10335	Tetrachloroethene	127-18-4	1	U	1	0.5	1
10335	Toluene	108-88-3	1	U	1	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	1	U	1	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	1	U	1	0.5	1
10335	Trichloroethene	79-01-6	1	U	1	0.5	1
10335	Trichlorofluoromethane	75-69-4	1	U	1	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	1	U	1	0.5	1
10335	m+p-Xylene	179601-23-1	1	U	1	0.5	1
10335	o-Xylene	95-47-6	1	U	1	0.5	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141551AA	06/04/2014 11:25	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141551AA	06/04/2014 11:25	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-532-SA5D-SB-4.0-4.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7479339
LL Group # 1477505
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 13:15 by VV

Submitted: 05/28/2014 11:15
Reported: 06/09/2014 15:18

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

5325D SDG#: PH200-04*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	21	U	21	7	0.98
10237	Acrolein	107-02-8	100	U	100	21	0.98
10237	Acrylonitrile	107-13-1	21	U	21	4	0.98
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.98
10237	Benzene	71-43-2	5	U	5	0.5	0.98
10237	Bromobenzene	108-86-1	5	U	5	1	0.98
10237	Bromochloromethane	74-97-5	5	U	5	1	0.98
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.98
10237	Bromoform	75-25-2	5	U	5	1	0.98
10237	Bromomethane	74-83-9	5	U	5	2	0.98
10237	2-Butanone	78-93-3	10	U	10	4	0.98
10237	t-Butyl alcohol	75-65-0	52	U	52	21	0.98
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.98
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.98
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.98
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.98
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.98
10237	Chlorobenzene	108-90-7	5	U	5	1	0.98
10237	Chloroethane	75-00-3	5	U	5	2	0.98
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.98
10237	Chloroform	67-66-3	5	U	5	1	0.98
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.98
10237	Chloromethane	74-87-3	5	U	5	2	0.98
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.98
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.98
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.98
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.98
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.98
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.98
10237	Dibromomethane	74-95-3	5	U	5	1	0.98
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.98
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.98
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.98
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.98
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.98
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.98
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.98
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.98
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.98
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.98
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.98
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.98
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.98
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.98
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.98
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.98
10237	Ethylbenzene	100-41-4	5	U	5	1	0.98
10237	Freon 113	76-13-1	5	U	5	2	0.98
10237	Freon 133a	75-88-7	5	U	5	2	0.98
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.98
10237	2-Hexanone	591-78-6	10	U	10	3	0.98

*=This limit was used in the evaluation of the final result

Sample Description: SVL-532-SA5D-SB-4.0-4.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7479339
LL Group # 1477505
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 13:15 by VV

Submitted: 05/28/2014 11:15
Reported: 06/09/2014 15:18

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

5325D SDG#: PH200-04*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.98
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.98
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.98
10237	Methyl Iodide	74-88-4	5	U	5	3	0.98
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.98
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.98
10237	Methylene Chloride	75-09-2	5	U	5	2	0.98
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.98
10237	Styrene	100-42-5	5	U	5	1	0.98
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.98
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.98
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.98
10237	Toluene	108-88-3	5	U	5	1	0.98
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.98
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.98
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.98
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.98
10237	Trichloroethene	79-01-6	5	U	5	1	0.98
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.98
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.98
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.98
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.98
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.98
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.98
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.98
10237	o-Xylene	95-47-6	5	U	5	1	0.98
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	5.4		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141562AA	06/06/2014 01:38	Andrea E Lando	0.98
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201414834624	05/28/2014 16:33	Lisa J Cooke	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-532-SA5D-SB-4.0-4.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7479339
LL Group # 1477505
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 13:15 by VV

Submitted: 05/28/2014 11:15
Reported: 06/09/2014 15:18

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

5325D SDG#: PH200-04*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201414834624	05/28/2014 16:33	Lisa J Cooke	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201414834624	05/28/2014 16:27	Lisa J Cooke	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14154162401A	06/03/2014 19:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477505
Reported: 06/09/14 at 03:18 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B141562AA	Sample number(s): 7479336-7479337,7479339								
Acetone	20 U	20.	7	ug/kg	99	100	41-149	1	30
Acrolein	100 U	100.	20	ug/kg	81	94	50-137	15	30
Acrylonitrile	20 U	20.	4	ug/kg	96	91	58-123	6	30
t-Amyl methyl ether	5 U	5.	1	ug/kg	97	99	63-130	2	30
Benzene	5 U	5.	0.5	ug/kg	102	100	80-120	2	30
Bromobenzene	5 U	5.	1	ug/kg	104	105	78-120	2	30
Bromochloromethane	5 U	5.	1	ug/kg	105	106	75-129	1	30
Bromodichloromethane	5 U	5.	1	ug/kg	98	97	75-120	0	30
Bromoform	5 U	5.	1	ug/kg	101	102	70-126	1	30
Bromomethane	5 U	5.	2	ug/kg	100	94	32-162	5	30
2-Butanone	10 U	10.	4	ug/kg	92	93	47-136	1	30
t-Butyl alcohol	50 U	50.	20	ug/kg	100	107	66-133	6	30
n-Butylbenzene	5 U	5.	1	ug/kg	99	99	72-120	0	30
sec-Butylbenzene	5 U	5.	1	ug/kg	104	101	69-120	3	30
tert-Butylbenzene	5 U	5.	1	ug/kg	99	99	75-120	0	30
Carbon Disulfide	5 U	5.	1	ug/kg	104	96	63-128	8	30
Carbon Tetrachloride	5 U	5.	1	ug/kg	104	102	69-130	2	30
Chlorobenzene	5 U	5.	1	ug/kg	102	105	80-120	3	30
Chloroethane	5 U	5.	2	ug/kg	95	89	17-171	6	30
2-Chloroethyl Vinyl Ether	10 U	10.	2	ug/kg	83	85	52-134	3	30
Chloroform	5 U	5.	1	ug/kg	103	104	80-120	0	30
1-Chlorohexane	5 U	5.	1	ug/kg	93	92	70-130	1	30
Chloromethane	5 U	5.	2	ug/kg	93	90	56-120	3	30
2-Chlorotoluene	5 U	5.	1	ug/kg	103	104	78-120	0	30
4-Chlorotoluene	5 U	5.	1	ug/kg	101	105	79-120	3	30
Chlorotrifluoroethene	5 U	5.	2	ug/kg	81	79	22-131	2	30
1,2-Dibromo-3-chloropropane	5 U	5.	2	ug/kg	93	97	50-132	4	30
Dibromochloromethane	5 U	5.	1	ug/kg	103	106	77-120	3	30
1,2-Dibromoethane	5 U	5.	1	ug/kg	104	104	80-120	0	30
Dibromomethane	5 U	5.	1	ug/kg	99	100	75-120	0	30
1,2-Dichlorobenzene	5 U	5.	1	ug/kg	104	103	80-120	1	30
1,3-Dichlorobenzene	5 U	5.	1	ug/kg	105	104	80-120	1	30
1,4-Dichlorobenzene	5 U	5.	1	ug/kg	103	103	80-120	0	30
Dichlorodifluoromethane	5 U	5.	2	ug/kg	101	99	26-137	3	30
1,1-Dichloroethane	5 U	5.	1	ug/kg	99	98	71-122	1	30
1,2-Dichloroethane	5 U	5.	1	ug/kg	106	108	66-136	2	30
1,1-Dichloroethene	5 U	5.	1	ug/kg	111	102	73-129	8	30
cis-1,2-Dichloroethene	5 U	5.	1	ug/kg	104	104	80-120	0	30
trans-1,2-Dichloroethene	5 U	5.	1	ug/kg	111	103	79-120	8	30
1,2-Dichloropropane	5 U	5.	1	ug/kg	98	98	77-120	0	30
1,3-Dichloropropane	5 U	5.	1	ug/kg	101	101	73-120	0	30
2,2-Dichloropropane	5 U	5.	1	ug/kg	101	99	72-123	2	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477505
Reported: 06/09/14 at 03:18 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/kg	103	104	77-120	1	30
cis-1,3-Dichloropropene	5	U	5.	1	ug/kg	96	96	74-120	0	30
trans-1,3-Dichloropropene	5	U	5.	1	ug/kg	101	100	69-120	0	30
Ethyl t-butyl ether	5	U	5.	1	ug/kg	95	98	59-134	3	30
Ethylbenzene	5	U	5.	1	ug/kg	104	103	80-120	2	30
Freon 113	5	U	5.	2	ug/kg	102	95	64-137	7	30
Freon 133a	5	U	5.	2	ug/kg	96	99	78-120	3	30
Hexachlorobutadiene	5	U	5.	2	ug/kg	96	100	46-130	5	30
2-Hexanone	10	U	10.	3	ug/kg	90	91	40-129	1	30
di-Isopropyl ether	5	U	5.	1	ug/kg	98	99	68-128	1	30
Isopropylbenzene	5	U	5.	1	ug/kg	105	103	76-120	1	30
p-Isopropyltoluene	5	U	5.	1	ug/kg	98	101	69-120	3	30
Methyl Iodide	5	U	5.	3	ug/kg	110	105	72-130	5	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/kg	104	101	69-126	2	30
4-Methyl-2-pentanone	10	U	10.	3	ug/kg	92	93	43-133	1	30
Methylene Chloride	5	U	5.	2	ug/kg	115	103	80-124	11	30
n-Propylbenzene	5	U	5.	1	ug/kg	103	105	77-120	1	30
Styrene	5	U	5.	1	ug/kg	105	104	76-120	1	30
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/kg	105	106	80-120	0	30
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/kg	98	102	71-123	4	30
Tetrachloroethene	5	U	5.	1	ug/kg	117	119	78-120	2	30
Toluene	5	U	5.	1	ug/kg	104	104	80-120	0	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/kg	98	99	64-120	1	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/kg	99	99	68-120	0	30
1,1,1-Trichloroethane	5	U	5.	1	ug/kg	103	100	63-135	3	30
1,1,2-Trichloroethane	5	U	5.	1	ug/kg	101	104	80-120	3	30
Trichloroethene	5	U	5.	1	ug/kg	103	105	80-120	1	30
Trichlorofluoromethane	5	U	5.	2	ug/kg	96	93	58-133	3	30
1,2,3-Trichloropropane	5	U	5.	1	ug/kg	105	110	71-123	5	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/kg	104	105	79-120	1	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/kg	104	105	78-120	1	30
Vinyl Acetate	10	U	10.	2	ug/kg	113	116	40-127	2	30
Vinyl Chloride	5	U	5.	1	ug/kg	97	93	59-120	4	30
m+p-Xylene	5	U	5.	1	ug/kg	105	103	80-120	2	30
o-Xylene	5	U	5.	1	ug/kg	104	103	80-120	0	30
Batch number: Y141551AA	Sample number(s): 7479338									
Acetone	20	U	20.	6	ug/l	89	88	43-149	1	30
Acrolein	100 U		100.	40	ug/l	76	76	52-129	1	30
Acrylonitrile	20	U	20.	4	ug/l	94	94	62-120	0	30
t-Amyl methyl ether	1	U	1.	0.5	ug/l	91	93	75-120	2	30
Benzene	1	U	1.	0.5	ug/l	93	95	78-120	2	30
Bromobenzene	5	U	5.	1	ug/l	95	97	80-120	3	30
Bromochloromethane	5	U	5.	1	ug/l	95	96	80-121	1	30
Bromodichloromethane	1	U	1.	0.5	ug/l	93	94	73-120	1	30
Bromoform	4	U	4.	0.5	ug/l	89	87	61-120	2	30
Bromomethane	1	U	1.	0.5	ug/l	97	98	58-120	1	30
2-Butanone	10	U	10.	3	ug/l	86	88	54-133	2	30
t-Butyl alcohol	50	U	50.	5	ug/l	96	95	75-120	1	30
n-Butylbenzene	5	U	5.	1	ug/l	88	90	68-120	3	30
sec-Butylbenzene	5	U	5.	1	ug/l	91	93	80-120	2	30
tert-Butylbenzene	5	U	5.	1	ug/l	91	93	73-120	2	30
Carbon Disulfide	5	U	5.	1	ug/l	89	89	58-126	0	30
Carbon Tetrachloride	1	U	1.	0.5	ug/l	101	104	74-130	2	30
Chlorobenzene	1	U	1.	0.5	ug/l	95	96	80-120	2	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477505
Reported: 06/09/14 at 03:18 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroethane	1	U	1.	0.5	ug/l	90	93	56-120	3	30
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/l	101	103	54-126	2	30
Chloroform	1	U	1.	0.5	ug/l	98	100	80-122	3	30
1-Chlorohexane	5	U	5.	1	ug/l	96	99	80-120	3	30
Chloromethane	1	U	1.	0.5	ug/l	103	106	63-120	3	30
2-Chlorotoluene	5	U	5.	1	ug/l	90	93	80-120	3	30
4-Chlorotoluene	5	U	5.	1	ug/l	89	93	80-120	5	30
Chlorotrifluoroethene	5	U	5.	2	ug/l	71	69	47-120	3	30
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/l	85	85	56-120	0	30
Dibromochloromethane	1	U	1.	0.5	ug/l	95	94	72-120	1	30
1,2-Dibromoethane	1	U	1.	0.5	ug/l	97	97	76-120	0	30
Dibromomethane	1	U	1.	0.5	ug/l	93	93	80-120	0	30
1,2-Dichlorobenzene	5	U	5.	1	ug/l	92	95	80-120	3	30
1,3-Dichlorobenzene	5	U	5.	1	ug/l	92	95	80-120	3	30
1,4-Dichlorobenzene	5	U	5.	1	ug/l	94	95	80-120	1	30
Dichlorodifluoromethane	1	U	1.	0.5	ug/l	94	96	48-132	3	30
1,1-Dichloroethane	1	U	1.	0.5	ug/l	92	94	80-120	3	30
1,2-Dichloroethane	1	U	1.	0.5	ug/l	98	99	65-135	1	30
1,1-Dichloroethene	1	U	1.	0.5	ug/l	108	109	76-124	1	30
cis-1,2-Dichloroethene	1	U	1.	0.5	ug/l	96	98	80-120	2	30
trans-1,2-Dichloroethene	1	U	1.	0.5	ug/l	108	113	80-120	4	30
1,2-Dichloropropane	1	U	1.	0.5	ug/l	87	91	80-120	4	30
1,3-Dichloropropane	1	U	1.	0.5	ug/l	90	90	80-120	1	30
2,2-Dichloropropane	1	U	1.	0.5	ug/l	99	99	67-124	1	30
1,1-Dichloropropene	5	U	5.	1	ug/l	98	102	80-120	3	30
cis-1,3-Dichloropropene	1	U	1.	0.5	ug/l	90	91	80-120	2	30
trans-1,3-Dichloropropene	1	U	1.	0.5	ug/l	91	91	76-120	0	30
Ethyl t-butyl ether	1	U	1.	0.5	ug/l	91	93	74-120	2	30
Ethylbenzene	1	U	1.	0.5	ug/l	93	94	79-120	1	30
Freon 113	10	U	10.	2	ug/l	98	97	67-127	1	30
Freon 133a	5	U	5.	2	ug/l	104	101	46-152	3	30
Hexachlorobutadiene	5	U	5.	2	ug/l	89	92	51-125	3	30
2-Hexanone	10	U	10.	3	ug/l	84	86	44-126	2	30
di-Isopropyl ether	1	U	1.	0.5	ug/l	89	92	65-120	3	30
Isopropylbenzene	5	U	5.	1	ug/l	95	95	77-120	0	30
p-Isopropyltoluene	5	U	5.	1	ug/l	89	92	80-120	3	30
Methyl Iodide	1	U	1.	0.5	ug/l	107	108	75-128	0	30
Methyl Tertiary Butyl Ether	1	U	1.	0.5	ug/l	104	105	75-120	1	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	86	88	51-124	3	30
Methylene Chloride	3	U	3.	2	ug/l	106	107	80-120	0	30
n-Propylbenzene	5	U	5.	1	ug/l	90	92	80-120	3	30
Styrene	5	U	5.	1	ug/l	94	95	80-120	2	30
1,1,1,2-Tetrachloroethane	1	U	1.	0.5	ug/l	96	97	80-120	1	30
1,1,2,2-Tetrachloroethane	1	U	1.	0.5	ug/l	86	87	70-120	2	30
Tetrachloroethene	1	U	1.	0.5	ug/l	100	101	80-120	1	30
Toluene	1	U	1.	0.5	ug/l	94	95	80-120	1	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	91	91	58-126	0	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	93	93	65-120	0	30
1,1,1-Trichloroethane	1	U	1.	0.5	ug/l	91	94	66-126	3	30
1,1,2-Trichloroethane	1	U	1.	0.5	ug/l	92	92	80-120	1	30
Trichloroethene	1	U	1.	0.5	ug/l	98	99	80-120	1	30
Trichlorofluoromethane	1	U	1.	0.5	ug/l	102	102	65-130	0	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	91	94	76-120	3	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	93	95	74-120	2	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	93	95	74-120	3	30
Vinyl Acetate	10	U	10.	2	ug/l	74	73	56-135	2	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477505
Reported: 06/09/14 at 03:18 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vinyl Chloride	1	U	1.	0.5	ug/l	97	98	63-120	1	30
m+p-Xylene	1	U	1.	0.5	ug/l	93	95	80-120	2	30
o-Xylene	1	U	1.	0.5	ug/l	93	94	80-120	2	30
Batch number: 14154162401A	Sample number(s): 7479336-7479337,7479339									
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14154162401A	Sample number(s): 7479336-7479337,7479339					BKG: 7479336			
14a Moisture Content by 160.3						13.1	13.1	0	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12a Volatile Organics EPA8260B
Batch number: B141562AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7479336	106	106	99	93
7479337	106	104	98	95
7479339	103	99	100	93
Blank	102	104	100	95
LCS	102	104	104	100
LCSD	101	100	103	101
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141551AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7479338	101	100	96	95
Blank	101	100	96	95
LCS	101	98	98	99
LCSD	100	101	97	98
Limits:	86-118	80-120	88-110	86-115

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/27/2014
CarrierName: FedEx
AirbillNo: 770107894616

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

A-13013 G-1477505 S-7479336-39

COC No: 20140527-02
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
SVL-546-SA5D-SB-5.0-6.0	5/27/14 11:03	SO	None	1 - 4 oz glass	10 day																		X																	soil moisture
SVL-546-SA5D-SB-5.0-6.0	5/27/14 11:03	SO	None	3 - Encore	10 day																		X																	
SVL-550-SA5D-SB-5.0-6.0	5/27/14 09:02	SO	None	1 - 4 oz glass	10 day																		X																	soil moisture
SVL-550-SA5D-SB-5.0-6.0	5/27/14 09:02	SO	None	3 - Encore	10 day																		X																	
TB2-052714	5/27/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																		X																	
SVL-532-SA5D-SB-4.0-4.5	5/27/14 13:15	SO	None	1 - 4 oz glass	10 day																		X																	soil moisture
SVL-532-SA5D-SB-4.0-4.5	5/27/14 13:15	SO	None	3 - Encore	10 day																		X																	

Special Instructions:

Sampler: Van Vathaoush

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
	05/27/14	1600									
									5.28.14	1115	

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Sample Administration Receipt Documentation Log

Doc Log ID: 15723

Group Number(s): 1477505

Client: CDM

SSFL

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/28/2014 11:15
Number of Packages:	2	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Brandy Barclay (2299) at 12:23 on 05/28/2014

Samples Chilled Details: SSFL

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT146	1.3	DT	Wet	Y	Bagged	N	N
2	DT146	4.6	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 10, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/28/2014
Group Number: 1477510
SDG: PH201
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SL-707-SA5B-TR-0.5 Soil	7479354
SL-707-SA5B-TR-3.0 Soil	7479355
TB3-052714 Water	7479356
SL-693-SA5B-TR-0.5 Soil	7479357
SL-693-SA5B-TR-3.5 Soil	7479358
SL-693-SA5B-TR-5.0 Soil	7479359

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: SL-707-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479354
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 08:13 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

70705 SDG#: PH201-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.67	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	0.71	J	1.7	0.67	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.67	1
12969	Benzo(b)fluoranthene	205-99-2	1.9		1.7	0.67	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.67	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.67	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	2.5		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.67	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.1	1
12969	Fluoranthene	206-44-0	2.9		1.7	0.67	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.67	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.67	1
12969	1-Methylnaphthalene	90-12-0	0.92	J	1.7	0.67	1
12969	2-Methylnaphthalene	91-57-6	1.7	J	1.7	0.67	1
12969	Naphthalene	91-20-3	1.4	J	1.7	0.67	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.67	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	2.2		1.7	0.67	1
12969	Pyrene	129-00-0	2.0		1.7	0.67	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.84	U	0.84	0.17	1
10590	Alpha BHC	319-84-6	0.84	U	0.84	0.17	1
10590	Beta BHC	319-85-7	1.9	U	1.9	0.97	1
10590	Gamma BHC - Lindane	58-89-9	0.84	U	0.84	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.0	1
10590	p,p-DDD	72-54-8	1.4	J	1.7	0.33	1
10590	p,p-DDE	72-55-9	550		86	17	50
10590	p,p-DDT	50-29-3	45	J	86	18	50
10590	Delta BHC	319-86-8	0.84	U	0.84	0.46	1
10590	Dieldrin	60-57-1	7.0		1.7	0.33	1
10590	Endosulfan I	959-98-8	0.84	U	0.84	0.22	1
10590	Endosulfan II	33213-65-9	0.56	J	1.7	0.33	1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.33	1
10590	Endrin	72-20-8	1.7	U	1.7	0.33	1
10590	Endrin Aldehyde	7421-93-4	1.7	U	1.7	0.33	1
10590	Endrin Ketone	53494-70-5	0.92	J	1.8	0.61	1
10590	Heptachlor	76-44-8	0.84	U	0.84	0.17	1
10590	Heptachlor Epoxide	1024-57-3	0.84	U	0.84	0.17	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-707-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479354
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 08:13 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

70705 SDG#: PH201-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Methoxychlor	72-43-5	6.8	U	6.8	1.7	1
10590	Mirex	2385-85-5	1.7	U	1.7	0.35	1
10590	Toxaphene	8001-35-2	33	U	33	14	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.1	1
13099	PCB-1232	11141-16-5	17	U	17	4.1	1
13099	PCB-1242	53469-21-9	17	U	17	4.1	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	17	U	17	4.4	1
13099	PCB-1260	11096-82-5	17	U	17	3.9	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	14		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	20		10	4.0	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.0	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	17,600		39.3	7.09	1
06944	Antimony	7440-36-0	3.93	U	3.93	0.727	1
06935	Arsenic	7440-38-2	4.40		3.93	0.688	1
06946	Barium	7440-39-3	126		0.983	0.0324	1
06947	Beryllium	7440-41-7	0.825	J	0.983	0.0658	1
07914	Boron	7440-42-8	5.48	J	9.83	0.825	1
06949	Cadmium	7440-43-9	0.240	J	0.983	0.0747	1
01650	Calcium	7440-70-2	3,120		19.7	3.28	1
06951	Chromium	7440-47-3	23.7		2.95	0.157	1
06952	Cobalt	7440-48-4	6.28		0.983	0.0973	1
06953	Copper	7440-50-8	13.8		1.97	0.285	1
01654	Iron	7439-89-6	24,600		39.3	3.56	1
06955	Lead	7439-92-1	9.32		2.95	0.491	1
01656	Lithium	7439-93-2	26.0		3.9	0.33	1
01657	Magnesium	7439-95-4	5,370		9.83	1.64	1
06958	Manganese	7439-96-5	370		0.983	0.0816	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-707-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479354
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 08:13 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

70705 SDG#: PH201-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
06960	Molybdenum	7439-98-7	0.457	J	1.97	0.167	1
06961	Nickel	7440-02-0	13.7		1.97	0.128	1
10145	Phosphorus	7723-14-0	620		9.83	2.84	1
01662	Potassium	7440-09-7	4,720		98.3	8.20	1
01667	Sodium	7440-23-5	97.2	J	98.3	16.4	1
06969	Tin	7440-31-5	2.96	J	9.83	0.216	1
06970	Titanium	7440-32-6	1,270		0.983	0.167	1
06971	Vanadium	7440-62-2	41.5		0.983	0.128	1
06972	Zinc	7440-66-6	73.7		3.93	0.197	1
10146	Zirconium	7440-67-7	4.75	J	4.91	0.825	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.274	J	0.393	0.0983	2
06142	Silver	7440-22-4	0.308		0.197	0.0255	2
06144	Strontium	7440-24-6	23.1		0.393	0.0668	2
06145	Thallium	7440-28-0	0.262		0.197	0.0295	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0163	U	0.0163	0.0098	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.46		0.0100	0.0100	1
	The pH was measured in water at 22.1 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.2		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-707-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479354
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 08:13 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

70705 SDG#: PH201-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.179	J	0.998	0.0582	1
11031	12378-PeCDD	40321-76-4	1.88	J	4.99	0.0851	1
11031	123478-HxCDD	39227-28-6	3.45	JB	4.99	0.101	1
11031	123678-HxCDD	57653-85-7	10.3		4.99	0.101	1
11031	123789-HxCDD	19408-74-3	6.81		4.99	0.105	1
11031	1234678-HpCDD	35822-46-9	329	B	4.99	0.156	1
11031	OCDD	3268-87-9	3,060	B	9.98	0.113	1
11031	2378-TCDF	51207-31-9	0.101	JQ	0.998	0.0873	1
11031	12378-PeCDF	57117-41-6	0.381	JB	4.99	0.0438	1
11031	23478-PeCDF	57117-31-4	0.580	JBQ	4.99	0.0435	1
11031	123478-HxCDF	70648-26-9	2.09	JB	4.99	0.121	1
11031	123678-HxCDF	57117-44-9	1.66	JB	4.99	0.103	1
11031	123789-HxCDF	72918-21-9	0.839	JB	4.99	0.115	1
11031	234678-HxCDF	60851-34-5	2.32	JB	4.99	0.106	1
11031	1234678-HpCDF	67562-39-4	70.4	B	4.99	0.0522	1
11031	1234789-HpCDF	55673-89-7	3.83	JB	4.99	0.102	1
11031	OCDF	39001-02-0	250	B	9.98	0.0730	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	9.84				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	59	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	71	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	74	17 - 157
13C12-2378-TCDF	51	24 - 169
13C12-12378-PeCDF	73	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	95	28 - 143
13C12-1234789-HpCDF	58	26 - 138
13C12-OCDF	55	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-707-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479354
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 08:13 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

70705 SDG#: PH201-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-707-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479354
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 08:13 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

70705 SDG#: PH201-01

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14151SLE026	06/04/2014 05:43	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14151SLE026	06/02/2014 03:30	Sherry L Morrow	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141530004A	06/09/2014 06:51	Jamie L Brillhart	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141530004A	06/09/2014 07:05	Jamie L Brillhart	50
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141500023A	06/03/2014 01:06	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141500023A	05/31/2014 06:00	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141530004A	06/02/2014 15:00	Kelli M Barto	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540006A	06/05/2014 02:28	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540007A	06/05/2014 17:32	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540007A	06/03/2014 16:35	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540006A	06/03/2014 16:35	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14154001	06/05/2014 13:47	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14154001	06/03/2014 12:15	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141490637001	06/02/2014 10:10	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141490637001	06/02/2014 10:10	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141490637001	06/02/2014 10:10	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141490637001	06/02/2014 10:10	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141490637001	06/02/2014 10:10	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141490637001	06/02/2014 10:10	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141490637001	06/02/2014 10:10	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141490637001	06/02/2014 10:10	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141490637001	06/02/2014 10:10	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141490637001	06/02/2014 10:10	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141490637001	06/02/2014 10:10	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141490637001	06/02/2014 10:10	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141490637001	06/02/2014 10:10	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141490637001	06/02/2014 10:10	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141490637001	06/02/2014 10:10	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141490637001	06/02/2014 10:10	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141490637001	06/02/2014 10:10	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141490637001	06/02/2014 10:10	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141490637001	06/02/2014 10:10	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141490637001	06/02/2014 10:10	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-707-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479354
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 08:13 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

70705 SDG#: PH201-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01667	Sodium	SW-846 6010C	1	141490637001	06/02/2014 10:10	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141490637001	06/02/2014 10:10	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141490637001	06/02/2014 23:30	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141490637001	06/02/2014 23:30	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141490637001	06/02/2014 10:10	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141490637001	06/02/2014 10:10	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141490637001B	06/02/2014 14:51	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141490637001A	06/02/2014 14:51	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141490637001A	06/02/2014 14:51	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141490637001A	06/02/2014 14:51	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638002	06/04/2014 21:09	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141490637001	06/01/2014 22:20	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638002	06/04/2014 09:30	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14148039403A	05/28/2014 22:15	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14154162402A	06/03/2014 19:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-707-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479355
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 08:55 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

70730 SDG#: PH201-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	1.7	U	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.2	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.0	J	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.3	J	1.7	0.69	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.69	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	26.15
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.86	U	0.86	0.18	1
10590	Alpha BHC	319-84-6	0.86	U	0.86	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.86	U	0.86	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.1	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.34	1
10590	p,p-DDE	72-55-9	10		1.8	0.34	1
10590	p,p-DDT	50-29-3	1.1	J	1.8	0.36	1
10590	Delta BHC	319-86-8	0.86	U	0.86	0.47	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.34	1
10590	Endosulfan I	959-98-8	0.86	U	0.86	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.34	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-707-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479355
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 08:55 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

70730 SDG#: PH201-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Endrin	72-20-8	1.8	U	1.8	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.34	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.62	1
10590	Heptachlor	76-44-8	0.86	U	0.86	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.86	U	0.86	0.18	1
10590	Methoxychlor	72-43-5	7.0	U	7.0	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	15	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.4	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.2	1
13099	PCB-1242	53469-21-9	17	U	17	4.2	1
13099	PCB-1248	12672-29-6	17	U	17	3.4	1
13099	PCB-1254	11097-69-1	17	U	17	4.5	1
13099	PCB-1260	11096-82-5	17	U	17	4.0	1
13099	PCB-1262	37324-23-5	17	U	17	3.4	1
13099	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	3.2	J	5.2	2.1	1
12952	EFH (C30-C40)	n.a.	10	U	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	23,000		39.9	7.19	1
06944	Antimony	7440-36-0	3.99	U	3.99	0.738	1
06935	Arsenic	7440-38-2	5.04		3.99	0.698	1
06946	Barium	7440-39-3	112		0.997	0.0329	1
06947	Beryllium	7440-41-7	0.987	J	0.997	0.0668	1
07914	Boron	7440-42-8	5.41	J	9.97	0.838	1
06949	Cadmium	7440-43-9	0.128	J	0.997	0.0758	1
01650	Calcium	7440-70-2	2,910		19.9	3.33	1
06951	Chromium	7440-47-3	25.0		2.99	0.160	1
06952	Cobalt	7440-48-4	6.33		0.997	0.0987	1
06953	Copper	7440-50-8	12.4		1.99	0.289	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-707-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479355
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 08:55 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

70730 SDG#: PH201-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01654	Iron	7439-89-6	26,000		39.9	3.61	1
06955	Lead	7439-92-1	6.52		2.99	0.499	1
01656	Lithium	7439-93-2	30.3		4.0	0.34	1
01657	Magnesium	7439-95-4	5,810		9.97	1.67	1
06958	Manganese	7439-96-5	364		0.997	0.0828	1
06960	Molybdenum	7439-98-7	0.352	J	1.99	0.170	1
06961	Nickel	7440-02-0	14.3		1.99	0.130	1
10145	Phosphorus	7723-14-0	482		9.97	2.88	1
01662	Potassium	7440-09-7	3,250		99.7	8.32	1
01667	Sodium	7440-23-5	123		99.7	16.7	1
06969	Tin	7440-31-5	3.08	J	9.97	0.219	1
06970	Titanium	7440-32-6	1,350		0.997	0.170	1
06971	Vanadium	7440-62-2	48.7		0.997	0.130	1
06972	Zinc	7440-66-6	61.4		3.99	0.199	1
10146	Zirconium	7440-67-7	4.29	J	4.99	0.838	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.272	J	0.399	0.0997	2
06142	Silver	7440-22-4	0.0347	J	0.199	0.0259	2
06144	Strontium	7440-24-6	21.1		0.399	0.0678	2
06145	Thallium	7440-28-0	0.278		0.199	0.0299	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0171	U	0.0171	0.0103	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.58		0.0100	0.0100	1
	The pH was measured in water at 22 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.6		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-707-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479355
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 08:55 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

70730 SDG#: PH201-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.02	U	1.02	0.0385	1
11031	12378-PeCDD	40321-76-4	5.09	U	5.09	0.0304	1
11031	123478-HxCDD	39227-28-6	0.111	JBQ	5.09	0.0428	1
11031	123678-HxCDD	57653-85-7	0.389	J	5.09	0.0435	1
11031	123789-HxCDD	19408-74-3	0.313	J	5.09	0.0425	1
11031	1234678-HpCDD	35822-46-9	11.1	B	5.09	0.0464	1
11031	OCDD	3268-87-9	112	B	10.2	0.0450	1
11031	2378-TCDF	51207-31-9	1.02	U	1.02	0.0333	1
11031	12378-PeCDF	57117-41-6	0.0652	JB	5.09	0.0166	1
11031	23478-PeCDF	57117-31-4	0.0696	JBQ	5.09	0.0172	1
11031	123478-HxCDF	70648-26-9	0.134	JBQ	5.09	0.0438	1
11031	123678-HxCDF	57117-44-9	0.0699	JBQ	5.09	0.0366	1
11031	123789-HxCDF	72918-21-9	0.0833	JBQ	5.09	0.0410	1
11031	234678-HxCDF	60851-34-5	0.134	JBQ	5.09	0.0398	1
11031	1234678-HpCDF	67562-39-4	2.55	JB	5.09	0.0208	1
11031	1234789-HpCDF	55673-89-7	0.196	JBQ	5.09	0.0423	1
11031	OCDF	39001-02-0	9.89	JB	10.2	0.0389	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.245				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	65	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	78	23 - 140
13C12-OCDD	67	17 - 157
13C12-2378-TCDF	58	24 - 169
13C12-12378-PeCDF	77	24 - 185
13C12-23478-PeCDF	70	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	82	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	81	29 - 147
13C12-1234678-HpCDF	101	28 - 143
13C12-1234789-HpCDF	59	26 - 138
13C12-OCDF	51	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-707-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479355
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 08:55 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

70730 SDG#: PH201-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-707-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479355
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 08:55 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

70730 SDG#: PH201-02

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14151SLE026	06/04/2014 07:18	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14151SLE026	06/02/2014 03:30	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14154A16A	06/03/2014 20:29	Laura M Krieger	26.15
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414834624	05/28/2014 16:20	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414834624	05/28/2014 16:21	Lisa J Cooke	n.a.
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141530004A	06/09/2014 07:18	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141500023A	06/03/2014 01:25	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141500023A	05/31/2014 06:00	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141530004A	06/02/2014 15:00	Kelli M Barto	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540006A	06/05/2014 00:39	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540007A	06/05/2014 18:38	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540007A	06/03/2014 16:35	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540006A	06/03/2014 16:35	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14154001	06/05/2014 14:44	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14154001	06/03/2014 12:15	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141490637001	06/02/2014 10:21	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141490637001	06/02/2014 10:21	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141490637001	06/02/2014 10:21	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141490637001	06/02/2014 10:21	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141490637001	06/02/2014 10:21	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141490637001	06/02/2014 10:21	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141490637001	06/02/2014 10:21	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141490637001	06/02/2014 10:21	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141490637001	06/02/2014 10:21	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141490637001	06/02/2014 10:21	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141490637001	06/02/2014 10:21	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141490637001	06/02/2014 10:21	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141490637001	06/02/2014 10:21	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141490637001	06/02/2014 10:21	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141490637001	06/02/2014 10:21	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141490637001	06/02/2014 10:21	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141490637001	06/02/2014 10:21	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141490637001	06/02/2014 10:21	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-707-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479355
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 08:55 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

70730 SDG#: PH201-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10145	Phosphorus	SW-846 6010C	1	141490637001	06/02/2014 10:21	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141490637001	06/02/2014 10:21	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141490637001	06/02/2014 10:21	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141490637001	06/02/2014 10:21	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141490637001	06/02/2014 23:34	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141490637001	06/02/2014 23:34	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141490637001	06/02/2014 10:21	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141490637001	06/02/2014 10:21	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141490637001B	06/02/2014 14:58	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141490637001A	06/02/2014 14:58	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141490637001A	06/02/2014 14:58	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141490637001A	06/02/2014 14:58	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638002	06/04/2014 21:11	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141490637001	06/01/2014 22:20	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638002	06/04/2014 09:30	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14148039403A	05/28/2014 22:15	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14154162402A	06/03/2014 19:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: TB3-052714 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7479356
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 08:00

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB327 SDG#: PH201-03TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14150B94A	06/03/2014 10:43	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14150B94A	06/03/2014 10:43	Laura M Krieger	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479357
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 10:17 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69305 SDG#: PH201-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	1.0	J	1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	1.3	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.1	1
12969	Fluoranthene	206-44-0	1.1	J	1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.68	1
12969	Naphthalene	91-20-3	0.73	J	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.68	1
12969	Pyrene	129-00-0	0.81	J	1.7	0.68	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.85	U	0.85	0.17	1
10590	Alpha BHC	319-84-6	0.85	U	0.85	0.17	1
10590	Beta BHC	319-85-7	1.9	U	1.9	0.98	1
10590	Gamma BHC - Lindane	58-89-9	0.85	U	0.85	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.1	1
10590	p,p-DDD	72-54-8	1.7	U	1.7	0.34	1
10590	p,p-DDE	72-55-9	1.7	U	1.7	0.34	1
10590	p,p-DDT	50-29-3	0.40	J	1.7	0.36	1
10590	Delta BHC	319-86-8	0.85	U	0.85	0.46	1
10590	Dieldrin	60-57-1	1.7	U	1.7	0.34	1
10590	Endosulfan I	959-98-8	0.85	U	0.85	0.22	1
10590	Endosulfan II	33213-65-9	1.7	U	1.7	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.34	1
10590	Endrin	72-20-8	1.7	U	1.7	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.7	U	1.7	0.34	1
10590	Endrin Ketone	53494-70-5	1.8	U	1.8	0.61	1
10590	Heptachlor	76-44-8	0.85	U	0.85	0.17	1
10590	Heptachlor Epoxide	1024-57-3	0.85	U	0.85	0.17	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479357
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 10:17 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69305 SDG#: PH201-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Methoxychlor	72-43-5	6.8	U	6.8	1.7	1
10590	Mirex	2385-85-5	1.7	U	1.7	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.1	1
13099	PCB-1232	11141-16-5	17	U	17	4.1	1
13099	PCB-1242	53469-21-9	17	U	17	4.1	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	17	U	17	4.4	1
13099	PCB-1260	11096-82-5	17	U	17	3.9	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	6.8		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	14		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	18,300		39.9	7.20	1
06944	Antimony	7440-36-0	3.99	U	3.99	0.739	1
06935	Arsenic	7440-38-2	5.03		3.99	0.699	1
06946	Barium	7440-39-3	137		0.998	0.0329	1
06947	Beryllium	7440-41-7	0.909	J	0.998	0.0669	1
07914	Boron	7440-42-8	5.59	J	9.98	0.839	1
06949	Cadmium	7440-43-9	0.324	J	0.998	0.0759	1
01650	Calcium	7440-70-2	2,950		20.0	3.33	1
06951	Chromium	7440-47-3	25.0		3.00	0.160	1
06952	Cobalt	7440-48-4	6.41		0.998	0.0988	1
06953	Copper	7440-50-8	14.5		2.00	0.290	1
01654	Iron	7439-89-6	24,300		39.9	3.61	1
06955	Lead	7439-92-1	7.53		3.00	0.499	1
01656	Lithium	7439-93-2	22.2		4.0	0.34	1
01657	Magnesium	7439-95-4	4,910		9.98	1.67	1
06958	Manganese	7439-96-5	354		0.998	0.0829	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479357
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 10:17 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69305 SDG#: PH201-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
06960	Molybdenum	7439-98-7	0.427	J	2.00	0.170	1
06961	Nickel	7440-02-0	14.8		2.00	0.130	1
10145	Phosphorus	7723-14-0	412		9.98	2.89	1
01662	Potassium	7440-09-7	4,350		99.8	8.33	1
01667	Sodium	7440-23-5	93.0	J	99.8	16.7	1
06969	Tin	7440-31-5	3.12	J	9.98	0.220	1
06970	Titanium	7440-32-6	1,300		0.998	0.170	1
06971	Vanadium	7440-62-2	44.6		0.998	0.130	1
06972	Zinc	7440-66-6	62.2		3.99	0.200	1
10146	Zirconium	7440-67-7	4.24	J	4.99	0.839	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.389	J	0.399	0.0998	2
06142	Silver	7440-22-4	0.0459	J	0.200	0.0260	2
06144	Strontium	7440-24-6	26.9		0.399	0.0679	2
06145	Thallium	7440-28-0	0.340		0.200	0.0300	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0163	U	0.0163	0.0098	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.85		0.0100	0.0100	1
	The pH was measured in water at 21.9 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.8		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479357
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 10:17 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69305 SDG#: PH201-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.991	U	0.991	0.0346	1
11031	12378-PeCDD	40321-76-4	0.126	JQ	4.95	0.0357	1
11031	123478-HxCDD	39227-28-6	0.137	JB	4.95	0.0499	1
11031	123678-HxCDD	57653-85-7	0.572	JQ	4.95	0.0521	1
11031	123789-HxCDD	19408-74-3	0.665	J	4.95	0.0492	1
11031	1234678-HpCDD	35822-46-9	10.7	B	4.95	0.0422	1
11031	OCDD	3268-87-9	120	B	9.91	0.0450	1
11031	2378-TCDF	51207-31-9	0.991	U	0.991	0.0405	1
11031	12378-PeCDF	57117-41-6	0.243	JB	4.95	0.0199	1
11031	23478-PeCDF	57117-31-4	0.0787	JBQ	4.95	0.0206	1
11031	123478-HxCDF	70648-26-9	0.100	JBQ	4.95	0.0539	1
11031	123678-HxCDF	57117-44-9	0.190	JB	4.95	0.0452	1
11031	123789-HxCDF	72918-21-9	0.450	JBQ	4.95	0.0518	1
11031	234678-HxCDF	60851-34-5	0.157	JBQ	4.95	0.0464	1
11031	1234678-HpCDF	67562-39-4	2.17	JB	4.95	0.0249	1
11031	1234789-HpCDF	55673-89-7	0.200	JB	4.95	0.0485	1
11031	OCDF	39001-02-0	5.75	JB	9.91	0.0356	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.275				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	65	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	82	23 - 140
13C12-OCDD	72	17 - 157
13C12-2378-TCDF	57	24 - 169
13C12-12378-PeCDF	79	24 - 185
13C12-23478-PeCDF	73	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	82	26 - 123
13C12-234678-HxCDF	75	28 - 136
13C12-123789-HxCDF	81	29 - 147
13C12-1234678-HpCDF	105	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	55	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479357
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 10:17 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69305 SDG#: PH201-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479357
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 10:17 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69305 SDG#: PH201-04

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14151SLE026	06/04/2014 07:51	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14151SLE026	06/02/2014 03:30	Sherry L Morrow	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141530004A	06/09/2014 07:46	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141500023A	06/03/2014 02:02	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141500023A	05/31/2014 06:00	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141530004A	06/02/2014 15:00	Kelli M Barto	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540006A	06/05/2014 03:32	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540007A	06/05/2014 18:59	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540007A	06/03/2014 16:35	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540006A	06/03/2014 16:35	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14154001	06/05/2014 15:40	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14154001	06/03/2014 12:15	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141490637001	06/02/2014 10:25	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141490637001	06/02/2014 10:25	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141490637001	06/02/2014 10:25	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141490637001	06/02/2014 10:25	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141490637001	06/02/2014 10:25	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141490637001	06/02/2014 10:25	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141490637001	06/02/2014 10:25	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141490637001	06/02/2014 10:25	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141490637001	06/02/2014 10:25	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141490637001	06/02/2014 10:25	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141490637001	06/02/2014 10:25	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141490637001	06/02/2014 10:25	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141490637001	06/02/2014 10:25	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141490637001	06/02/2014 10:25	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141490637001	06/02/2014 10:25	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141490637001	06/02/2014 10:25	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141490637001	06/02/2014 10:25	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141490637001	06/02/2014 10:25	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141490637001	06/02/2014 10:25	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141490637001	06/02/2014 10:25	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141490637001	06/02/2014 10:25	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141490637001	06/02/2014 10:25	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479357
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 10:17 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69305 SDG#: PH201-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010C	1	141490637001	06/02/2014 23:39	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141490637001	06/02/2014 23:39	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141490637001	06/02/2014 10:25	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141490637001	06/02/2014 10:25	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141490637001B	06/02/2014 15:00	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141490637001A	06/02/2014 15:00	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141490637001A	06/02/2014 15:00	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141490637001A	06/02/2014 15:00	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638002	06/04/2014 21:21	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141490637001	06/01/2014 22:20	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638002	06/04/2014 09:30	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14148039403A	05/28/2014 22:15	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14154162402A	06/03/2014 19:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-3.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479358
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 13:15 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69335 SDG#: PH201-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.70	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.70	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.70	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.70	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.70	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.2	U	1.2	0.2	28.15
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.87	U	0.87	0.18	1
10590	Alpha BHC	319-84-6	0.87	U	0.87	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.87	U	0.87	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.2	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.35	1
10590	p,p-DDE	72-55-9	1.8	U	1.8	0.35	1
10590	p,p-DDT	50-29-3	1.8	U	1.8	0.37	1
10590	Delta BHC	319-86-8	0.87	U	0.87	0.47	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.35	1
10590	Endosulfan I	959-98-8	0.87	U	0.87	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.35	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.35	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-3.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479358
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 13:15 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69335 SDG#: PH201-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Endrin	72-20-8	1.8	U	1.8	0.35	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.35	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.63	1
10590	Heptachlor	76-44-8	0.87	U	0.87	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.87	U	0.87	0.18	1
10590	Methoxychlor	72-43-5	7.0	U	7.0	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.37	1
10590	Toxaphene	8001-35-2	35	U	35	15	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.2	1
13099	PCB-1242	53469-21-9	18	U	18	4.2	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.0	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C21-C30)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	25,200		40.8	7.36	1
06944	Antimony	7440-36-0	4.08	U	4.08	0.755	1
06935	Arsenic	7440-38-2	6.52		4.08	0.715	1
06946	Barium	7440-39-3	136		1.02	0.0337	1
06947	Beryllium	7440-41-7	1.17		1.02	0.0684	1
07914	Boron	7440-42-8	6.43	J	10.2	0.858	1
06949	Cadmium	7440-43-9	0.178	J	1.02	0.0776	1
01650	Calcium	7440-70-2	2,960		20.4	3.41	1
06951	Chromium	7440-47-3	28.7		3.06	0.163	1
06952	Cobalt	7440-48-4	6.69		1.02	0.101	1
06953	Copper	7440-50-8	11.6		2.04	0.296	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-3.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479358
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 13:15 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69335 SDG#: PH201-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01654	Iron	7439-89-6	27,500		40.8	3.70	1
06955	Lead	7439-92-1	7.66		3.06	0.510	1
01656	Lithium	7439-93-2	26.7		4.1	0.35	1
01657	Magnesium	7439-95-4	5,280		10.2	1.70	1
06958	Manganese	7439-96-5	357		1.02	0.0847	1
06960	Molybdenum	7439-98-7	0.388	J	2.04	0.174	1
06961	Nickel	7440-02-0	15.8		2.04	0.133	1
10145	Phosphorus	7723-14-0	243		10.2	2.95	1
01662	Potassium	7440-09-7	2,810		102	8.51	1
01667	Sodium	7440-23-5	125		102	17.0	1
06969	Tin	7440-31-5	3.28	J	10.2	0.225	1
06970	Titanium	7440-32-6	1,380		1.02	0.174	1
06971	Vanadium	7440-62-2	53.0		1.02	0.133	1
06972	Zinc	7440-66-6	60.5		4.08	0.204	1
10146	Zirconium	7440-67-7	4.88	J	5.10	0.858	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.267	J	0.408	0.102	2
06142	Silver	7440-22-4	0.0610	J	0.204	0.0265	2
06144	Strontium	7440-24-6	24.1		0.408	0.0694	2
06145	Thallium	7440-28-0	0.280		0.204	0.0306	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0163	U	0.0163	0.0098	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.31		0.0100	0.0100	1
	The pH was measured in water at 22.1 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.9		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-3.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479358
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 13:15 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69335 SDG#: PH201-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.02	U	1.02	0.0428	1
11031	12378-PeCDD	40321-76-4	5.11	U	5.11	0.0377	1
11031	123478-HxCDD	39227-28-6	5.11	U	5.11	0.0245	1
11031	123678-HxCDD	57653-85-7	0.0540	JQ	5.11	0.0251	1
11031	123789-HxCDD	19408-74-3	0.0802	JQ	5.11	0.0255	1
11031	1234678-HpCDD	35822-46-9	0.195	JB	5.11	0.0279	1
11031	OCDD	3268-87-9	1.70	JB	10.2	0.0395	1
11031	2378-TCDF	51207-31-9	1.02	U	1.02	0.0316	1
11031	12378-PeCDF	57117-41-6	5.11	U	5.11	0.0178	1
11031	23478-PeCDF	57117-31-4	5.11	U	5.11	0.0177	1
11031	123478-HxCDF	70648-26-9	0.0232	JBQ	5.11	0.0189	1
11031	123678-HxCDF	57117-44-9	0.0263	JB	5.11	0.0170	1
11031	123789-HxCDF	72918-21-9	0.0626	JBQ	5.11	0.0187	1
11031	234678-HxCDF	60851-34-5	5.11	U	5.11	0.0177	1
11031	1234678-HpCDF	67562-39-4	0.0703	JBQ	5.11	0.0151	1
11031	1234789-HpCDF	55673-89-7	5.11	U	5.11	0.0259	1
11031	OCDF	39001-02-0	0.177	JBQ	10.2	0.0394	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.00509				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	62	25 - 164
13C12-12378-PeCDD	66	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	84	23 - 140
13C12-OCDD	73	17 - 157
13C12-2378-TCDF	56	24 - 169
13C12-12378-PeCDF	69	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	78	26 - 152
13C12-123678-HxCDF	85	26 - 123
13C12-234678-HxCDF	79	28 - 136
13C12-123789-HxCDF	85	29 - 147
13C12-1234678-HpCDF	101	28 - 143
13C12-1234789-HpCDF	68	26 - 138
13C12-OCDF	60	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-3.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479358
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 13:15 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69335 SDG#: PH201-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-3.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479358
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 13:15 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69335 SDG#: PH201-05

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14151SLE026	06/04/2014 08:23	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14151SLE026	06/02/2014 03:30	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14154A16A	06/03/2014 21:07	Laura M Krieger	28.15
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414834624	05/28/2014 16:19	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414834624	05/28/2014 16:19	Lisa J Cooke	n.a.
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141530004A	06/09/2014 08:13	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141500023A	06/03/2014 02:20	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141500023A	05/31/2014 06:00	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141530004A	06/02/2014 15:00	Kelli M Barto	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540006A	06/05/2014 01:01	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540007A	06/05/2014 19:21	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540007A	06/03/2014 16:35	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540006A	06/03/2014 16:35	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14154001	06/05/2014 16:37	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14154001	06/03/2014 12:15	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141490637001	06/02/2014 10:29	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141490637001	06/02/2014 10:29	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141490637001	06/02/2014 10:29	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141490637001	06/02/2014 10:29	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141490637001	06/02/2014 10:29	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141490637001	06/02/2014 10:29	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141490637001	06/02/2014 10:29	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141490637001	06/02/2014 10:29	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141490637001	06/02/2014 10:29	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141490637001	06/02/2014 10:29	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141490637001	06/02/2014 10:29	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141490637001	06/02/2014 23:43	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141490637001	06/02/2014 10:29	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141490637001	06/02/2014 10:29	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141490637001	06/02/2014 10:29	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141490637001	06/02/2014 10:29	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141490637001	06/02/2014 10:29	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141490637001	06/02/2014 10:29	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-3.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479358
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 13:15 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69335 SDG#: PH201-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10145	Phosphorus	SW-846 6010C	1	141490637001	06/02/2014 10:29	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141490637001	06/02/2014 10:29	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141490637001	06/02/2014 10:29	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141490637001	06/02/2014 10:29	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141490637001	06/02/2014 23:43	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141490637001	06/02/2014 23:43	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141490637001	06/02/2014 10:29	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141490637001	06/02/2014 10:29	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141490637001B	06/02/2014 15:03	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141490637001A	06/02/2014 15:03	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141490637001A	06/02/2014 15:03	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141490637001A	06/02/2014 15:03	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638002	06/04/2014 21:28	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141490637001	06/01/2014 22:20	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638002	06/04/2014 09:30	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14148039403A	05/28/2014 22:15	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14154162402A	06/03/2014 19:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479359
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 13:40 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69350 SDG#: PH201-06*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.71	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.71	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.71	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.71	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.71	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.71	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	0.68	J	1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.71	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3	1
12969	Fluoranthene	206-44-0	0.82	J	1.8	0.71	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.71	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.71	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.71	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.71	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.71	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.71	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.71	1
12969	Pyrene	129-00-0	0.71	J	1.8	0.71	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1	U	1	0.2	22.52
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.88	U	0.88	0.18	1
10590	Alpha BHC	319-84-6	0.88	U	0.88	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.88	U	0.88	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.2	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.35	1
10590	p,p-DDE	72-55-9	1.8	U	1.8	0.35	1
10590	p,p-DDT	50-29-3	1.8	U	1.8	0.58	1
10590	Delta BHC	319-86-8	0.88	U	0.88	0.48	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.35	1
10590	Endosulfan I	959-98-8	0.88	U	0.88	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.35	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.35	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479359
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 13:40 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69350 SDG#: PH201-06*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Endrin	72-20-8	1.8	U	1.8	0.35	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.35	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.63	1
10590	Heptachlor	76-44-8	0.88	U	0.88	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.88	U	0.88	0.18	1
10590	Methoxychlor	72-43-5	7.1	U	7.1	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.37	1
10590	Toxaphene	8001-35-2	35	U	35	15	1
Reporting limits were raised due to interference from the sample matrix.							
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C21-C30)	n.a.	5.0	J	5.3	2.1	1
12952	EFH (C30-C40)	n.a.	14		11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	19,400		41.1	7.41	1
06944	Antimony	7440-36-0	4.11	U	4.11	0.760	1
06935	Arsenic	7440-38-2	5.08		4.11	0.719	1
06946	Barium	7440-39-3	111		1.03	0.0339	1
06947	Beryllium	7440-41-7	0.898	J	1.03	0.0688	1
07914	Boron	7440-42-8	4.81	J	10.3	0.863	1
06949	Cadmium	7440-43-9	0.128	J	1.03	0.0781	1
01650	Calcium	7440-70-2	2,840		20.5	3.43	1
06951	Chromium	7440-47-3	22.4		3.08	0.164	1
06952	Cobalt	7440-48-4	5.60		1.03	0.102	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479359
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 13:40 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69350 SDG#: PH201-06*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**	**mg/kg**	**mg/kg**	
06953	Copper	7440-50-8	10.8	2.05	0.298	1
01654	Iron	7439-89-6	23,000	41.1	3.72	1
06955	Lead	7439-92-1	6.95	3.08	0.514	1
01656	Lithium	7439-93-2	22.5	4.1	0.35	1
01657	Magnesium	7439-95-4	4,810	10.3	1.72	1
06958	Manganese	7439-96-5	287	1.03	0.0853	1
06960	Molybdenum	7439-98-7	0.347 J	2.05	0.175	1
06961	Nickel	7440-02-0	12.2	2.05	0.134	1
10145	Phosphorus	7723-14-0	269	10.3	2.97	1
01662	Potassium	7440-09-7	2,840	103	8.57	1
01667	Sodium	7440-23-5	193	103	17.2	1
06969	Tin	7440-31-5	2.97 J	10.3	0.226	1
06970	Titanium	7440-32-6	1,250	1.03	0.175	1
06971	Vanadium	7440-62-2	42.9	1.03	0.134	1
06972	Zinc	7440-66-6	50.1	4.11	0.205	1
10146	Zirconium	7440-67-7	4.46 J	5.14	0.863	1
	SW-846 6020A		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.273 J	0.411	0.103	2
06142	Silver	7440-22-4	0.0448 J	0.205	0.0267	2
06144	Strontium	7440-24-6	26.0	0.411	0.0699	2
06145	Thallium	7440-28-0	0.245	0.205	0.0308	2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0165 U	0.0165	0.0099	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.51	0.0100	0.0100	1
	The pH was measured in water at 22.1 C.					
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	5.5	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479359
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 13:40 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69350 SDG#: PH201-06*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.04	U	1.04	0.0295	1
11031	12378-PeCDD	40321-76-4	0.0450	JQ	5.21	0.0272	1
11031	123478-HxCDD	39227-28-6	5.21	U	5.21	0.0217	1
11031	123678-HxCDD	57653-85-7	0.103	J	5.21	0.0223	1
11031	123789-HxCDD	19408-74-3	0.178	J	5.21	0.0230	1
11031	1234678-HpCDD	35822-46-9	0.885	JBQ	5.21	0.0317	1
11031	OCDD	3268-87-9	7.98	JB	10.4	0.0224	1
11031	2378-TCDF	51207-31-9	1.04	U	1.04	0.0267	1
11031	12378-PeCDF	57117-41-6	0.139	JB	5.21	0.0145	1
11031	23478-PeCDF	57117-31-4	0.0216	JB	5.21	0.0144	1
11031	123478-HxCDF	70648-26-9	0.0383	JBQ	5.21	0.0162	1
11031	123678-HxCDF	57117-44-9	0.0504	JB	5.21	0.0139	1
11031	123789-HxCDF	72918-21-9	0.171	JBQ	5.21	0.0149	1
11031	234678-HxCDF	60851-34-5	0.0344	JBQ	5.21	0.0151	1
11031	1234678-HpCDF	67562-39-4	0.210	JB	5.21	0.0108	1
11031	1234789-HpCDF	55673-89-7	0.0351	JB	5.21	0.0191	1
11031	OCDF	39001-02-0	0.516	JB	10.4	0.0289	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0488				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	89	32 - 141
13C12-123678-HxCDD	90	28 - 130
13C12-123789-HxCDD	88	28 - 130
13C12-1234678-HpCDD	88	23 - 140
13C12-OCDD	77	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	84	24 - 185
13C12-23478-PeCDF	79	21 - 178
13C12-123478-HxCDF	84	26 - 152
13C12-123678-HxCDF	93	26 - 123
13C12-234678-HxCDF	86	28 - 136
13C12-123789-HxCDF	96	29 - 147
13C12-1234678-HpCDF	110	28 - 143
13C12-1234789-HpCDF	73	26 - 138
13C12-OCDF	63	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479359
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 13:40 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69350 SDG#: PH201-06*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479359
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 13:40 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69350 SDG#: PH201-06*

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14151SLE026	06/04/2014 08:55	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14151SLE026	06/02/2014 03:30	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14154A16A	06/03/2014 21:45	Laura M Krieger	22.52
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414834624	05/28/2014 16:18	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414834624	05/28/2014 16:18	Lisa J Cooke	n.a.
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141530004A	06/09/2014 08:27	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141500023A	06/03/2014 02:39	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141500023A	05/31/2014 06:00	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141530004A	06/02/2014 15:00	Kelli M Barto	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540006A	06/05/2014 06:47	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540007A	06/05/2014 23:18	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540007A	06/03/2014 16:35	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540006A	06/03/2014 16:35	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14154001	06/05/2014 17:34	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14154001	06/03/2014 12:15	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141490637001	06/02/2014 10:33	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141490637001	06/02/2014 10:33	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141490637001	06/02/2014 10:33	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141490637001	06/02/2014 10:33	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141490637001	06/02/2014 10:33	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141490637001	06/02/2014 10:33	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141490637001	06/02/2014 10:33	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	141490637001	06/02/2014 10:33	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141490637001	06/02/2014 10:33	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141490637001	06/02/2014 10:33	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141490637001	06/02/2014 10:33	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141490637001	06/02/2014 10:33	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141490637001	06/02/2014 10:33	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141490637001	06/02/2014 10:33	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141490637001	06/02/2014 10:33	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141490637001	06/02/2014 10:33	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141490637001	06/02/2014 10:33	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141490637001	06/02/2014 10:33	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7479359
LL Group # 1477510
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/27/2014 13:40 by AR

Submitted: 05/28/2014 11:15
Reported: 06/10/2014 08:58

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69350 SDG#: PH201-06*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10145	Phosphorus	SW-846 6010C	1	141490637001	06/02/2014 10:33	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141490637001	06/02/2014 10:33	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141490637001	06/02/2014 10:33	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141490637001	06/02/2014 10:33	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141490637001	06/02/2014 23:51	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141490637001	06/02/2014 23:51	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141490637001	06/02/2014 10:33	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141490637001	06/02/2014 10:33	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141490637001B	06/02/2014 15:05	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141490637001A	06/02/2014 15:05	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141490637001A	06/02/2014 15:05	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141490637001A	06/02/2014 15:05	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638002	06/04/2014 21:30	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141490637001	06/01/2014 22:20	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638002	06/04/2014 09:30	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14148039403A	05/28/2014 22:15	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14154162402A	06/03/2014 19:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477510
Reported: 06/10/14 at 08:58 AM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14151SLE026	Sample number(s): 7479354-7479355,7479357-7479359									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	104		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	98		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	107		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	103		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	88		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	104		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	79*		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	97		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	81		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	101		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	104		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	93		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	103		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	90		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	86		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	101		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	101		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	88		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	98		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	94		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	100		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	95		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	91		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	100		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	101		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	96		80-119		
Batch number: 14150B94A	Sample number(s): 7479356									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	97	92	80-133	6	30
Batch number: 14154A16A	Sample number(s): 7479355,7479358-7479359									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	77		67-120		
Batch number: 141500023A	Sample number(s): 7479354-7479355,7479357-7479359									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	82	86	36-106	5	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	97		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477510
Reported: 06/10/14 at 08:58 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1260	17	U	17.	3.9	ug/kg	98		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141530004A	Sample number(s): 7479354-7479355,7479357-7479359									
Aldrin	0.83	U	0.83	0.17	ug/kg	86		60-118		
Alpha BHC	0.83	U	0.83	0.17	ug/kg	88		55-135		
Beta BHC	1.9	U	1.9	0.96	ug/kg	89		67-129		
Gamma BHC - Lindane	0.83	U	0.83	0.17	ug/kg	91		56-138		
Chlordane	17	U	17.	4.0	ug/kg					
p,p-DDD	1.7	U	1.7	0.33	ug/kg	100		69-141		
p,p-DDE	1.7	U	1.7	0.33	ug/kg	100		69-130		
p,p-DDT	1.7	U	1.7	0.35	ug/kg	100		64-139		
Delta BHC	0.83	U	0.83	0.45	ug/kg	89		59-137		
Dieldrin	1.7	U	1.7	0.33	ug/kg	94		68-134		
Endosulfan I	0.83	U	0.83	0.22	ug/kg	88		56-128		
Endosulfan II	1.7	U	1.7	0.33	ug/kg	92		68-128		
Endosulfan Sulfate	1.7	U	1.7	0.33	ug/kg	93		71-132		
Endrin	1.7	U	1.7	0.33	ug/kg	92		70-132		
Endrin Aldehyde	1.7	U	1.7	0.33	ug/kg	85		61-125		
Endrin Ketone	1.8	U	1.8	0.60	ug/kg	89		69-126		
Heptachlor	0.83	U	0.83	0.17	ug/kg	89		57-130		
Heptachlor Epoxide	0.83	U	0.83	0.17	ug/kg	94		69-125		
Methoxychlor	6.7	U	6.7	1.7	ug/kg	100		67-136		
Mirex	1.7	U	1.7	0.35	ug/kg					
Toxaphene	33	U	33.	14	ug/kg					
Batch number: 141540006A	Sample number(s): 7479354-7479355,7479357-7479359									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	89		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	91		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	93		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	87		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	80		60-115		
Batch number: 141540007A	Sample number(s): 7479354-7479355,7479357-7479359									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	66*		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	68*		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	68*		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	54		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	54*		60-115		
Batch number: 141490637001	Sample number(s): 7479354-7479355,7479357-7479359									
Aluminum	7.59	J	40.0	7.21	mg/kg	108		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	109		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	103		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	102		80-120		
Beryllium	0.0890	J	1.00	0.0670	mg/kg	103		80-120		
Boron	1.60	J	10.0	0.840	mg/kg	101		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	103		80-120		
Calcium	21.3		20.0	3.34	mg/kg	107		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	101		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	104		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	104		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	106		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	104		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	102		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477510
Reported: 06/10/14 at 08:58 AM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Magnesium	10.0 U	10.0	1.67	mg/kg	102		80-120		
Manganese	1.00 U	1.00	0.0830	mg/kg	103		80-120		
Molybdenum	2.00 U	2.00	0.170	mg/kg	102		80-120		
Nickel	2.00 U	2.00	0.130	mg/kg	107		80-120		
Phosphorus	10.0 U	10.0	2.89	mg/kg	103		80-120		
Potassium	100 U	100.	8.34	mg/kg	102		80-120		
Sodium	100 U	100.	16.7	mg/kg	101		80-120		
Tin	1.59 J	10.0	0.220	mg/kg	102		80-120		
Titanium	1.00 U	1.00	0.170	mg/kg	105		80-120		
Vanadium	1.00 U	1.00	0.130	mg/kg	106		80-120		
Zinc	4.00 U	4.00	0.200	mg/kg	102		80-120		
Zirconium	5.00 U	5.00	0.840	mg/kg	105		80-120		
Batch number: 141490637001A	Sample number(s): 7479354-7479355,7479357-7479359								
Silver	0.200 U	0.200	0.0260	mg/kg	103		80-120		
Strontium	0.103 J	0.400	0.0680	mg/kg	102		80-120		
Thallium	0.200 U	0.200	0.0300	mg/kg	103		80-120		
Batch number: 141490637001B	Sample number(s): 7479354-7479355,7479357-7479359								
Selenium	0.400 U	0.400	0.100	mg/kg	107		80-120		
Batch number: 141540638002	Sample number(s): 7479354-7479355,7479357-7479359								
3a Mercury 7471A	0.0167 U	0.0167	0.0100	mg/kg	92		85-120		
Batch number: 14148039403A	Sample number(s): 7479354-7479355,7479357-7479359								
15a pH by 9045D					100		95-105		
Batch number: 14154162402A	Sample number(s): 7479354-7479355,7479357-7479359								
14a Moisture Content by 160.3					100		80-120		

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14154001	Sample number(s): 7479354-7479355,7479357-7479359								
2378-TCDD	1.00 U	1.00	0.0402	ng/kg	89		67-158		
12378-PeCDD	5.00 U	5.00	0.0292	ng/kg	88		70-142		
123478-HxCDD	0.0420 J	5.00	0.0181	ng/kg	85		70-164		
123678-HxCDD	5.00 U	5.00	0.0184	ng/kg	86		76-134		
123789-HxCDD	5.00 U	5.00	0.0194	ng/kg	87		64-162		
1234678-HpCDD	0.0576 J	5.00	0.0182	ng/kg	86		70-140		
OCDD	0.308 J	10.0	0.0241	ng/kg	83		78-144		
2378-TCDF	1.00 U	1.00	0.0347	ng/kg	88		75-158		
12378-PeCDF	0.0470 J	5.00	0.0150	ng/kg	86		80-134		
23478-PeCDF	0.0155 J	5.00	0.0148	ng/kg	88		68-160		
123478-HxCDF	0.0223 J	5.00	0.0157	ng/kg	89		72-134		
123678-HxCDF	0.0187 J	5.00	0.0136	ng/kg	89		84-130		
123789-HxCDF	0.0558 J	5.00	0.0151	ng/kg	96		78-130		
234678-HxCDF	0.0179 J	5.00	0.0146	ng/kg	87		70-156		
1234678-HpCDF	0.0496 J	5.00	0.00684	ng/kg	85		82-122		
1234789-HpCDF	0.0536 J	5.00	0.0133	ng/kg	86		78-138		
OCDF	0.159 J	10.0	0.0343	ng/kg	86		63-170		
TEQ WHO 2005 - EDLx0.0	0.000140			ng/kg					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477510
Reported: 06/10/14 at 08:58 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14151SLE026	Sample number(s): 7479354-7479355,7479357-7479359 UNSPK: 7479354								
Acenaphthene	97	96	48-127	0	30				
Acenaphthylene	100	100	60-128	0	30				
Anthracene	93	94	52-126	0	30				
Benzo(a)anthracene	101	99	44-143	1	30				
Benzo(a)pyrene	83	82	49-137	1	30				
Benzo(b)fluoranthene	88	90	26-142	1	30				
Benzo(e)pyrene	76	77	63-111	0	30				
Benzo(g,h,i)perylene	77	74	33-141	4	30				
Benzo(k)fluoranthene	84	86	49-144	2	30				
Butylbenzylphthalate	105	104	64-156	1	30				
Di-n-butylphthalate	106	103	52-147	3	30				
Chrysene	91	94	43-141	2	30				
Dibenz(a,h)anthracene	85	85	25-145	1	30				
Diethylphthalate	89	91	66-140	2	30				
Dimethylphthalate	85	84	70-123	1	30				
Bis(2-Ethylhexyl)phthalate	119	112	48-164	6	30				
Fluoranthene	94	117	38-153	20	30				
Fluorene	81	80	57-130	2	30				
Indeno(1,2,3-cd)pyrene	81	79	26-139	2	30				
1-Methylnaphthalene	90	91	59-139	1	30				
2-Methylnaphthalene	95	95	46-147	1	30				
Naphthalene	89	89	52-136	0	30				
N-Nitrosodimethylamine	84	84	39-134	0	30				
Di-n-octylphthalate	106	105	52-162	1	30				
Phenanthrene	104	125	50-137	17	30				
Pyrene	86	97	26-143	12	30				
Batch number: 14154A16A	Sample number(s): 7479355,7479358-7479359 UNSPK: P483434								
11a TPH by EPA 8015B GRO	72	77	69-123	6	30				
Batch number: 141500023A	Sample number(s): 7479354-7479355,7479357-7479359 UNSPK: P476634								
PCB-1016	95	96	41-135	1	50				
PCB-1260	94	99	40-134	5	50				
Batch number: 141530004A	Sample number(s): 7479354-7479355,7479357-7479359 UNSPK: P483434								
Aldrin	94	85	16-126	10	50				
Alpha BHC	93	86	14-140	8	50				
Beta BHC	95	86	42-133	9	50				
Gamma BHC - Lindane	96	88	30-137	9	50				
p,p-DDD	109	99	43-149	10	50				
p,p-DDE	112	103	35-152	9	50				
p,p-DDT	107	98	12-193	9	50				
Delta BHC	98	90	13-153	9	50				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477510
Reported: 06/10/14 at 08:58 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Dieldrin	100	88	41-153	12	50				
Endosulfan I	91	83	26-146	9	50				
Endosulfan II	96	88	34-141	9	50				
Endosulfan Sulfate	96	89	10-181	7	50				
Endrin	98	90	30-152	9	50				
Endrin Aldehyde	88	82	23-138	6	50				
Endrin Ketone	92	85	30-148	8	50				
Heptachlor	95	87	16-152	9	50				
Heptachlor Epoxide	99	90	33-144	10	50				
Methoxychlor	106	97	41-161	8	50				
Batch number: 141540006A	Sample number(s): 7479354-7479355,7479357-7479359 UNSPK: 7479354								
EFH (C12-C14)	88	89	49-123	1	20				
EFH (C15-C20)	106	107	49-123	2	20				
EFH (C21-C30)	77	81	49-123	2	20				
EFH (C30-C40)	73	79	49-123	3	20				
EFH (C8-C11)	85	83	49-123	2	20				
Batch number: 141540007A	Sample number(s): 7479354-7479355,7479357-7479359 UNSPK: 7479354								
EFH C12-C14 w/ SiGel	61	70	49-123	13	20				
EFH C15-C20 w/ SiGel	63	71	49-123	13	20				
EFH C21-C30 w/ SiGel	68	77	49-123	12	20				
EFH C30-C40 w/ SiGel	65	74	49-123	12	20				
EFH C8-C11 w/ SiGel	50	58	49-123	16	20				
Batch number: 141490637001	Sample number(s): 7479354-7479355,7479357-7479359 UNSPK: P475537 BKG: P475537								
Aluminum	2418 (2)	2734 (2)	75-125	3	20	17,700	17,800	1	20
Antimony	77	80	75-125	3	20	3.88 U	3.88 U	0 (1)	20
Arsenic	101	103	75-125	1	20	3.89	4.13	6 (1)	20
Barium	103	103	75-125	0	20	84.5	86.5	2	20
Beryllium	102	101	75-125	1	20	0.751 J	0.776 J	3 (1)	20
Boron	98	98	75-125	0	20	5.99 J	6.29 J	5 (1)	20
Cadmium	96	98	75-125	2	20	0.174 J	0.126 J	32* (1)	20
Calcium	163 (2)	192 (2)	75-125	4	20	2,300	2,380	3	20
Chromium	112	124	75-125	6	20	17.9	18.2	1	20
Cobalt	96	95	75-125	1	20	4.22	8.65	69* (1)	20
Copper	107	137*	75-125	20	20	7.17	7.48	4 (1)	20
Iron	672 (2)	1158 (2)	75-125	2	20	20,600	20,000	3	20
Lead	97	109	75-125	9	20	4.90	5.26	7 (1)	20
Lithium	106	104	75-125	2	20	23.7	23.7	0	20
Magnesium	299 (2)	377 (2)	75-125	3	20	3,780	3,910	3	20
Manganese	129 (2)	134 (2)	75-125	1	20	234	273	15	20
Molybdenum	96	95	75-125	1	20	0.539 J	0.384 J	33* (1)	20
Nickel	101	100	75-125	1	20	9.62	9.91	3 (1)	20
Phosphorus	104	159*	75-125	16	20	203	212	4	20
Potassium	139*	128*	75-125	3	20	1,970	2,030	3	20
Sodium	105	101	75-125	4	20	132	138	5 (1)	20
Tin	92	91	75-125	1	20	2.72 J	2.85 J	5 (1)	20
Titanium	297 (2)	399 (2)	75-125	7	20	1,020	1,030	0	20
Vanadium	109	114	75-125	3	20	35.9	36.1	1	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477510
Reported: 06/10/14 at 08:58 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Zinc	100	142*	75-125	21*	20	41.2	41.8	1	20
Zirconium	97	97	75-125	0	20	3.97 J	4.80 J	19 (1)	20
Batch number: 141490637001A	Sample number(s): 7479354-7479355,7479357-7479359 UNSPK: P475537 BKG: P475537								
Silver	103	103	75-125	1	20	0.0377 J	0.0369 J	2 (1)	20
Strontium	128*	118	75-125	3	20	19.2	19.4	1	20
Thallium	100	104	75-125	2	20	0.217	0.213	2 (1)	20
Batch number: 141490637001B	Sample number(s): 7479354-7479355,7479357-7479359 UNSPK: P475537 BKG: P475537								
Selenium	102	102	75-125	0	20	0.188 J	0.184 J	2 (1)	20
Batch number: 141540638002	Sample number(s): 7479354-7479355,7479357-7479359 UNSPK: 7479355 BKG: 7479355								
3a Mercury 7471A	93	98	65-135	6	20	0.0165 U	0.0154 U	0 (1)	20
Batch number: 14148039403A	Sample number(s): 7479354-7479355,7479357-7479359 BKG: 7479354								
15a pH by 9045D						6.46	6.48	0	3
Batch number: 14154162402A	Sample number(s): 7479354-7479355,7479357-7479359 BKG: 7479357								
14a Moisture Content by 160.3						1.8	1.8	2	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14151SLE026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7479354	89	94	82
7479355	95	106	83
7479357	95	109	85
7479358	92	110	84
7479359	95	108	86
Blank	99	106	89
LCS	103	119*	89
MS	96	106	88
MSD	99	107	87
Limits:	59-115	61-118	70-127

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14150B94A

	Trifluorotoluene-F
7479356	81
Blank	81
LCS	91

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477510
Reported: 06/10/14 at 08:58 AM

Surrogate Quality Control

LCSD 85

Limits: 63-135

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 14154A16A

	Trifluorotoluene-F
7479355	100
7479358	104
7479359	89
Blank	90
LCS	96
MS	83
MSD	87
Limits:	50-142

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141500023A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7479354	108	98
7479355	107	99
7479357	99	96
7479358	104	98
7479359	110	99
Blank	115	102
LCS	111	101
LCSD	119	104
MS	107	101
MSD	108	105
Limits:	45-120	45-120

Analysis Name: 20a Pesticides by EPA 8081B
Batch number: 141530004A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7479354	91	111
7479355	82	93
7479357	96	94
7479358	81	87
7479359	88	92
Blank	90	100
LCS	92	105
MS	94	102
MSD	85	92
Limits:	50-130	20-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141540006A

	Chlorobenzene	Orthoterphenyl
7479354	75	93

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Quality Control Summary

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Reported: 06/10/14 at 08:58 AM

Surrogate Quality Control

7479355	68	82
7479357	86	87
7479358	87	87
7479359	68	82
Blank	74	88
LCS	76	91
MS	78	87
MSD	92	87
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141540007A

	Chlorobenzene	Orthoterphenyl
7479354	59	67
7479355	67	75
7479357	57	62*
7479358	64	67
7479359	63	72
Blank	50	54*
LCS	62	67
MS	58	61*
MSD	66	69
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 14154001

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7479354	59	70	74	76	71	77
7479355	65	74	78	79	77	78
7479357	65	76	79	81	78	82
7479358	62	66	80	83	81	84
7479359	74	81	89	90	88	88
Blank	65	79	85	89	86	86
OPR	65	85	89	89	89	92
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7479354	74	51	73	67	67	76
7479355	67	58	77	70	72	82
7479357	72	57	79	73	72	82
7479358	73	56	69	64	78	85
7479359	77	65	84	79	84	93
Blank	78	57	80	74	75	86
OPR	90	52	82	77	75	86
Limits:	17-157	24-169	24-185	21-178	26-152	26-123

	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF
7479354	69	77	95	58	55

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Reported: 06/10/14 at 08:58 AM

Surrogate Quality Control

7479355	73	81	101	59	51
7479357	75	81	105	64	55
7479358	79	85	101	68	60
7479359	86	96	110	73	63
Blank	79	84	110	67	59
OPR	80	73	111	71	65
Limits:	28-136	29-147	28-143	26-138	17-157

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/27/2014

CarrierName: FedEx

AirbillNo: 770107894616

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

A-13013 G-1477510 S-747935A-59

COC No: 20140527-01

Cooler #: 1

Lab: Lancaster

Lab Phone: 717-556-7259

Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
SL-707-SA5B-TR-0.5	5/27/14 08:13	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X				X			X														
SL-707-SA5B-TR-3.0	5/27/14 08:55	SO	None	2 - Encore	10 day																			X															
SL-707-SA5B-TR-3.0	5/27/14 08:55	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X				X			X														
TB3-052714	5/27/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																			X															
SL-693-SA5B-TR-0.5	5/27/14 10:17	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X				X			X														
SL-693-SA5B-TR-3.5	5/27/14 13:15	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X				X			X														
SL-693-SA5B-TR-3.5	5/27/14 13:15	SO	None	2 - Encore	10 day																			X															
SL-693-SA5B-TR-5.0	5/27/14 13:40	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X				X			X														
SL-693-SA5B-TR-5.0	5/27/14 13:40	SO	None	2 - Encore	10 day																			X															

Special Instructions: For all EFH, silica gel clean up required on half the extract. Analyze both extracts for EFH.

Sampler: Andrea Payne

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[signature]	05/27/14	1600									
									[signature]	5.28.14	1115

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 15723

Group Number(s): 1477570

Client: CDM

SSFL

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/28/2014 11:15
Number of Packages:	2	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Brandy Barclay (2299) at 12:23 on 05/28/2014

Samples Chilled Details: SSFL

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT146	1.3	DT	Wet	Y	Bagged	N	N
2	DT146	4.6	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 09, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/29/2014
Group Number: 1477788
SDG: PH203
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SVL-507-SA5C-SB-5.0-6.0 Soil	7480323
TB2-052814 Water	7480324
SVL-551-SA5C-SB-2.0-2.8 Soil	7480325
SVL-545-SA5C-SB-3.0-3.5 Soil	7480326

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: SVL-507-SA5C-SB-5.0-6.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7480323
LL Group # 1477788
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 09:40 by VV

Submitted: 05/29/2014 09:35
Reported: 06/09/2014 12:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50750 SDG#: PH203-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	19	U	19	7	0.86
10237	Acrolein	107-02-8	96	U	96	19	0.86
10237	Acrylonitrile	107-13-1	19	U	19	4	0.86
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.86
10237	Benzene	71-43-2	5	U	5	0.5	0.86
10237	Bromobenzene	108-86-1	5	U	5	1	0.86
10237	Bromochloromethane	74-97-5	5	U	5	1	0.86
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.86
10237	Bromoform	75-25-2	5	U	5	1	0.86
10237	Bromomethane	74-83-9	5	U	5	2	0.86
10237	2-Butanone	78-93-3	10	U	10	4	0.86
10237	t-Butyl alcohol	75-65-0	48	U	48	19	0.86
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.86
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.86
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.86
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.86
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.86
10237	Chlorobenzene	108-90-7	5	U	5	1	0.86
10237	Chloroethane	75-00-3	5	U	5	2	0.86
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.86
10237	Chloroform	67-66-3	5	U	5	1	0.86
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.86
10237	Chloromethane	74-87-3	5	U	5	2	0.86
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.86
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.86
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.86
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.86
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.86
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.86
10237	Dibromomethane	74-95-3	5	U	5	1	0.86
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.86
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.86
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.86
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.86
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.86
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.86
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.86
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.86
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.86
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.86
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.86
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.86
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.86
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.86
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.86
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.86
10237	Ethylbenzene	100-41-4	5	U	5	1	0.86
10237	Freon 113	76-13-1	5	U	5	2	0.86
10237	Freon 133a	75-88-7	5	U	5	2	0.86
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.86
10237	2-Hexanone	591-78-6	10	U	10	3	0.86

*=This limit was used in the evaluation of the final result

Sample Description: SVL-507-SA5C-SB-5.0-6.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7480323
LL Group # 1477788
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 09:40 by VV

Submitted: 05/29/2014 09:35
Reported: 06/09/2014 12:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50750 SDG#: PH203-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.86
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.86
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.86
10237	Methyl Iodide	74-88-4	5	U	5	3	0.86
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.86
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.86
10237	Methylene Chloride	75-09-2	5	U	5	2	0.86
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.86
10237	Styrene	100-42-5	5	U	5	1	0.86
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.86
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.86
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.86
10237	Toluene	108-88-3	5	U	5	1	0.86
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.86
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.86
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.86
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.86
10237	Trichloroethene	79-01-6	5	U	5	1	0.86
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.86
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.86
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.86
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.86
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.86
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.86
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.86
10237	o-Xylene	95-47-6	5	U	5	1	0.86
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	10.9		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141562AA	06/06/2014 02:03	Andrea E Lando	0.86
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201414934643	05/29/2014 15:13	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-507-SA5C-SB-5.0-6.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7480323
LL Group # 1477788
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 09:40 by VV

Submitted: 05/29/2014 09:35
Reported: 06/09/2014 12:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50750 SDG#: PH203-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201414934643	05/29/2014 15:13	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201414934643	05/29/2014 14:45	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14154162401B	06/03/2014 19:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: TB2-052814 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7480324
LL Group # 1477788
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 08:00

Submitted: 05/29/2014 09:35
Reported: 06/09/2014 12:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB--2 SDG#: PH203-02TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	1	U	1	0.5	1
10335	Benzene	71-43-2	1	U	1	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	1	U	1	0.5	1
10335	Bromoform	75-25-2	4	U	4	0.5	1
10335	Bromomethane	74-83-9	1	U	1	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	1	U	1	0.5	1
10335	Chlorobenzene	108-90-7	1	U	1	0.5	1
10335	Chloroethane	75-00-3	1	U	1	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	1	U	1	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	1	U	1	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	1	U	1	0.5	1
10335	1,2-Dibromoethane	106-93-4	1	U	1	0.5	1
10335	Dibromomethane	74-95-3	1	U	1	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	1	U	1	0.5	1
10335	1,1-Dichloroethane	75-34-3	1	U	1	0.5	1
10335	1,2-Dichloroethane	107-06-2	1	U	1	0.5	1
10335	1,1-Dichloroethene	75-35-4	1	U	1	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	1	U	1	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	1	U	1	0.5	1
10335	1,2-Dichloropropane	78-87-5	1	U	1	0.5	1
10335	1,3-Dichloropropane	142-28-9	1	U	1	0.5	1
10335	2,2-Dichloropropane	594-20-7	1	U	1	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	1	U	1	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	1	U	1	0.5	1
10335	Ethyl t-butyl ether	637-92-3	1	U	1	0.5	1
10335	Ethylbenzene	100-41-4	1	U	1	0.5	1
10335	Freon 113	76-13-1	10	U	10	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: TB2-052814 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7480324
LL Group # 1477788
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 08:00

Submitted: 05/29/2014 09:35
Reported: 06/09/2014 12:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB--2 SDG#: PH203-02TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	1	U	1	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	1	U	1	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	1	U	1	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	3	U	3	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	1	U	1	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	1	U	1	0.5	1
10335	Tetrachloroethene	127-18-4	1	U	1	0.5	1
10335	Toluene	108-88-3	1	U	1	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	1	U	1	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	1	U	1	0.5	1
10335	Trichloroethene	79-01-6	1	U	1	0.5	1
10335	Trichlorofluoromethane	75-69-4	1	U	1	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	1	U	1	0.5	1
10335	m+p-Xylene	179601-23-1	1	U	1	0.5	1
10335	o-Xylene	95-47-6	1	U	1	0.5	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141551AA	06/04/2014 11:46	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141551AA	06/04/2014 11:46	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-551-SA5C-SB-2.0-2.8 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7480325
LL Group # 1477788
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 15:15 by VV

Submitted: 05/29/2014 09:35
Reported: 06/09/2014 12:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55120 SDG#: PH203-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	20	U	20	7	0.97
10237	Acrolein	107-02-8	100	U	100	20	0.97
10237	Acrylonitrile	107-13-1	20	U	20	4	0.97
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.97
10237	Benzene	71-43-2	5	U	5	0.5	0.97
10237	Bromobenzene	108-86-1	5	U	5	1	0.97
10237	Bromochloromethane	74-97-5	5	U	5	1	0.97
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.97
10237	Bromoform	75-25-2	5	U	5	1	0.97
10237	Bromomethane	74-83-9	5	U	5	2	0.97
10237	2-Butanone	78-93-3	10	U	10	4	0.97
10237	t-Butyl alcohol	75-65-0	51	U	51	20	0.97
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.97
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.97
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.97
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.97
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.97
10237	Chlorobenzene	108-90-7	5	U	5	1	0.97
10237	Chloroethane	75-00-3	5	U	5	2	0.97
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.97
10237	Chloroform	67-66-3	5	U	5	1	0.97
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.97
10237	Chloromethane	74-87-3	5	U	5	2	0.97
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.97
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.97
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.97
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.97
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.97
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.97
10237	Dibromomethane	74-95-3	5	U	5	1	0.97
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.97
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.97
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.97
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.97
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.97
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.97
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.97
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.97
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.97
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.97
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.97
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.97
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.97
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.97
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.97
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.97
10237	Ethylbenzene	100-41-4	5	U	5	1	0.97
10237	Freon 113	76-13-1	5	U	5	2	0.97
10237	Freon 133a	75-88-7	5	U	5	2	0.97
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.97
10237	2-Hexanone	591-78-6	10	U	10	3	0.97

*=This limit was used in the evaluation of the final result

Sample Description: SVL-551-SA5C-SB-2.0-2.8 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7480325
LL Group # 1477788
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 15:15 by VV

Submitted: 05/29/2014 09:35
Reported: 06/09/2014 12:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55120 SDG#: PH203-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.97
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.97
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.97
10237	Methyl Iodide	74-88-4	5	U	5	3	0.97
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.97
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.97
10237	Methylene Chloride	75-09-2	5	U	5	2	0.97
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.97
10237	Styrene	100-42-5	5	U	5	1	0.97
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.97
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.97
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.97
10237	Toluene	108-88-3	5	U	5	1	0.97
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.97
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.97
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.97
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.97
10237	Trichloroethene	79-01-6	5	U	5	1	0.97
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.97
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.97
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.97
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.97
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.97
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.97
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.97
10237	o-Xylene	95-47-6	5	U	5	1	0.97
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	4.9		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141562AA	06/06/2014 02:25	Andrea E Lando	0.97
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201414934643	05/29/2014 15:12	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-551-SA5C-SB-2.0-2.8 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7480325
LL Group # 1477788
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 15:15 by VV

Submitted: 05/29/2014 09:35
Reported: 06/09/2014 12:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55120 SDG#: PH203-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201414934643	05/29/2014 15:13	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201414934643	05/29/2014 14:47	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14154162401B	06/03/2014 19:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-545-SA5C-SB-3.0-3.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7480326
LL Group # 1477788
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 14:10 by VV

Submitted: 05/29/2014 09:35
Reported: 06/09/2014 12:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54530 SDG#: PH203-04*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	23	U	23	8	1.07
10237	Acrolein	107-02-8	120	U	120	23	1.07
10237	Acrylonitrile	107-13-1	23	U	23	5	1.07
10237	t-Amyl methyl ether	994-05-8	6	U	6	1	1.07
10237	Benzene	71-43-2	6	U	6	0.6	1.07
10237	Bromobenzene	108-86-1	6	U	6	1	1.07
10237	Bromochloromethane	74-97-5	6	U	6	1	1.07
10237	Bromodichloromethane	75-27-4	6	U	6	1	1.07
10237	Bromoform	75-25-2	6	U	6	1	1.07
10237	Bromomethane	74-83-9	6	U	6	2	1.07
10237	2-Butanone	78-93-3	12	U	12	5	1.07
10237	t-Butyl alcohol	75-65-0	58	U	58	23	1.07
10237	n-Butylbenzene	104-51-8	6	U	6	1	1.07
10237	sec-Butylbenzene	135-98-8	6	U	6	1	1.07
10237	tert-Butylbenzene	98-06-6	6	U	6	1	1.07
10237	Carbon Disulfide	75-15-0	6	U	6	1	1.07
10237	Carbon Tetrachloride	56-23-5	6	U	6	1	1.07
10237	Chlorobenzene	108-90-7	6	U	6	1	1.07
10237	Chloroethane	75-00-3	6	U	6	2	1.07
10237	2-Chloroethyl Vinyl Ether	110-75-8	12	U	12	2	1.07
10237	Chloroform	67-66-3	6	U	6	1	1.07
10237	1-Chlorohexane	544-10-5	6	U	6	1	1.07
10237	Chloromethane	74-87-3	6	U	6	2	1.07
10237	2-Chlorotoluene	95-49-8	6	U	6	1	1.07
10237	4-Chlorotoluene	106-43-4	6	U	6	1	1.07
10237	Chlorotrifluoroethene	79-38-9	6	U	6	2	1.07
10237	1,2-Dibromo-3-chloropropane	96-12-8	6	U	6	2	1.07
10237	Dibromochloromethane	124-48-1	6	U	6	1	1.07
10237	1,2-Dibromoethane	106-93-4	6	U	6	1	1.07
10237	Dibromomethane	74-95-3	6	U	6	1	1.07
10237	1,2-Dichlorobenzene	95-50-1	6	U	6	1	1.07
10237	1,3-Dichlorobenzene	541-73-1	6	U	6	1	1.07
10237	1,4-Dichlorobenzene	106-46-7	6	U	6	1	1.07
10237	Dichlorodifluoromethane	75-71-8	6	U	6	2	1.07
10237	1,1-Dichloroethane	75-34-3	6	U	6	1	1.07
10237	1,2-Dichloroethane	107-06-2	6	U	6	1	1.07
10237	1,1-Dichloroethene	75-35-4	6	U	6	1	1.07
10237	cis-1,2-Dichloroethene	156-59-2	6	U	6	1	1.07
10237	trans-1,2-Dichloroethene	156-60-5	6	U	6	1	1.07
10237	1,2-Dichloropropane	78-87-5	6	U	6	1	1.07
10237	1,3-Dichloropropane	142-28-9	6	U	6	1	1.07
10237	2,2-Dichloropropane	594-20-7	6	U	6	1	1.07
10237	1,1-Dichloropropene	563-58-6	6	U	6	1	1.07
10237	cis-1,3-Dichloropropene	10061-01-5	6	U	6	1	1.07
10237	trans-1,3-Dichloropropene	10061-02-6	6	U	6	1	1.07
10237	Ethyl t-butyl ether	637-92-3	6	U	6	1	1.07
10237	Ethylbenzene	100-41-4	6	U	6	1	1.07
10237	Freon 113	76-13-1	6	U	6	2	1.07
10237	Freon 133a	75-88-7	6	U	6	2	1.07
10237	Hexachlorobutadiene	87-68-3	6	U	6	2	1.07
10237	2-Hexanone	591-78-6	12	U	12	3	1.07

*=This limit was used in the evaluation of the final result

Sample Description: SVL-545-SA5C-SB-3.0-3.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7480326
LL Group # 1477788
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 14:10 by VV

Submitted: 05/29/2014 09:35
Reported: 06/09/2014 12:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54530 SDG#: PH203-04*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	6	U	6	1	1.07
10237	Isopropylbenzene	98-82-8	6	U	6	1	1.07
10237	p-Isopropyltoluene	99-87-6	6	U	6	1	1.07
10237	Methyl Iodide	74-88-4	6	U	6	3	1.07
10237	Methyl Tertiary Butyl Ether	1634-04-4	6	U	6	0.6	1.07
10237	4-Methyl-2-pentanone	108-10-1	12	U	12	3	1.07
10237	Methylene Chloride	75-09-2	6	U	6	2	1.07
10237	n-Propylbenzene	103-65-1	6	U	6	1	1.07
10237	Styrene	100-42-5	6	U	6	1	1.07
10237	1,1,1,2-Tetrachloroethane	630-20-6	6	U	6	1	1.07
10237	1,1,2,2-Tetrachloroethane	79-34-5	6	U	6	1	1.07
10237	Tetrachloroethene	127-18-4	6	U	6	1	1.07
10237	Toluene	108-88-3	6	U	6	1	1.07
10237	1,2,3-Trichlorobenzene	87-61-6	6	U	6	1	1.07
10237	1,2,4-Trichlorobenzene	120-82-1	6	U	6	1	1.07
10237	1,1,1-Trichloroethane	71-55-6	6	U	6	1	1.07
10237	1,1,2-Trichloroethane	79-00-5	6	U	6	1	1.07
10237	Trichloroethene	79-01-6	6	U	6	1	1.07
10237	Trichlorofluoromethane	75-69-4	6	U	6	2	1.07
10237	1,2,3-Trichloropropane	96-18-4	6	U	6	1	1.07
10237	1,2,4-Trimethylbenzene	95-63-6	6	U	6	1	1.07
10237	1,3,5-Trimethylbenzene	108-67-8	6	U	6	1	1.07
10237	Vinyl Acetate	108-05-4	12	U	12	2	1.07
10237	Vinyl Chloride	75-01-4	6	U	6	1	1.07
10237	m+p-Xylene	179601-23-1	6	U	6	1	1.07
10237	o-Xylene	95-47-6	6	U	6	1	1.07
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	7.6		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141562AA	06/06/2014 02:47	Andrea E Lando	1.07
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201414934643	05/29/2014 15:13	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-545-SA5C-SB-3.0-3.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7480326
LL Group # 1477788
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 14:10 by VV

Submitted: 05/29/2014 09:35
Reported: 06/09/2014 12:48

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54530 SDG#: PH203-04*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201414934643	05/29/2014 15:13	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201414934643	05/29/2014 14:51	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14154162401B	06/03/2014 19:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477788
Reported: 06/09/14 at 12:48 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B141562AA	Sample number(s): 7480323,7480325-7480326								
Acetone	20 U	20.	7	ug/kg	99	100	41-149	1	30
Acrolein	100 U	100.	20	ug/kg	81	94	50-137	15	30
Acrylonitrile	20 U	20.	4	ug/kg	96	91	58-123	6	30
t-Amyl methyl ether	5 U	5.	1	ug/kg	97	99	63-130	2	30
Benzene	5 U	5.	0.5	ug/kg	102	100	80-120	2	30
Bromobenzene	5 U	5.	1	ug/kg	104	105	78-120	2	30
Bromochloromethane	5 U	5.	1	ug/kg	105	106	75-129	1	30
Bromodichloromethane	5 U	5.	1	ug/kg	98	97	75-120	0	30
Bromoform	5 U	5.	1	ug/kg	101	102	70-126	1	30
Bromomethane	5 U	5.	2	ug/kg	100	94	32-162	5	30
2-Butanone	10 U	10.	4	ug/kg	92	93	47-136	1	30
t-Butyl alcohol	50 U	50.	20	ug/kg	100	107	66-133	6	30
n-Butylbenzene	5 U	5.	1	ug/kg	99	99	72-120	0	30
sec-Butylbenzene	5 U	5.	1	ug/kg	104	101	69-120	3	30
tert-Butylbenzene	5 U	5.	1	ug/kg	99	99	75-120	0	30
Carbon Disulfide	5 U	5.	1	ug/kg	104	96	63-128	8	30
Carbon Tetrachloride	5 U	5.	1	ug/kg	104	102	69-130	2	30
Chlorobenzene	5 U	5.	1	ug/kg	102	105	80-120	3	30
Chloroethane	5 U	5.	2	ug/kg	95	89	17-171	6	30
2-Chloroethyl Vinyl Ether	10 U	10.	2	ug/kg	83	85	52-134	3	30
Chloroform	5 U	5.	1	ug/kg	103	104	80-120	0	30
1-Chlorohexane	5 U	5.	1	ug/kg	93	92	70-130	1	30
Chloromethane	5 U	5.	2	ug/kg	93	90	56-120	3	30
2-Chlorotoluene	5 U	5.	1	ug/kg	103	104	78-120	0	30
4-Chlorotoluene	5 U	5.	1	ug/kg	101	105	79-120	3	30
Chlorotrifluoroethene	5 U	5.	2	ug/kg	81	79	22-131	2	30
1,2-Dibromo-3-chloropropane	5 U	5.	2	ug/kg	93	97	50-132	4	30
Dibromochloromethane	5 U	5.	1	ug/kg	103	106	77-120	3	30
1,2-Dibromoethane	5 U	5.	1	ug/kg	104	104	80-120	0	30
Dibromomethane	5 U	5.	1	ug/kg	99	100	75-120	0	30
1,2-Dichlorobenzene	5 U	5.	1	ug/kg	104	103	80-120	1	30
1,3-Dichlorobenzene	5 U	5.	1	ug/kg	105	104	80-120	1	30
1,4-Dichlorobenzene	5 U	5.	1	ug/kg	103	103	80-120	0	30
Dichlorodifluoromethane	5 U	5.	2	ug/kg	101	99	26-137	3	30
1,1-Dichloroethane	5 U	5.	1	ug/kg	99	98	71-122	1	30
1,2-Dichloroethane	5 U	5.	1	ug/kg	106	108	66-136	2	30
1,1-Dichloroethene	5 U	5.	1	ug/kg	111	102	73-129	8	30
cis-1,2-Dichloroethene	5 U	5.	1	ug/kg	104	104	80-120	0	30
trans-1,2-Dichloroethene	5 U	5.	1	ug/kg	111	103	79-120	8	30
1,2-Dichloropropane	5 U	5.	1	ug/kg	98	98	77-120	0	30
1,3-Dichloropropane	5 U	5.	1	ug/kg	101	101	73-120	0	30
2,2-Dichloropropane	5 U	5.	1	ug/kg	101	99	72-123	2	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477788
Reported: 06/09/14 at 12:48 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/kg	103	104	77-120	1	30
cis-1,3-Dichloropropene	5	U	5.	1	ug/kg	96	96	74-120	0	30
trans-1,3-Dichloropropene	5	U	5.	1	ug/kg	101	100	69-120	0	30
Ethyl t-butyl ether	5	U	5.	1	ug/kg	95	98	59-134	3	30
Ethylbenzene	5	U	5.	1	ug/kg	104	103	80-120	2	30
Freon 113	5	U	5.	2	ug/kg	102	95	64-137	7	30
Freon 133a	5	U	5.	2	ug/kg	96	99	78-120	3	30
Hexachlorobutadiene	5	U	5.	2	ug/kg	96	100	46-130	5	30
2-Hexanone	10	U	10.	3	ug/kg	90	91	40-129	1	30
di-Isopropyl ether	5	U	5.	1	ug/kg	98	99	68-128	1	30
Isopropylbenzene	5	U	5.	1	ug/kg	105	103	76-120	1	30
p-Isopropyltoluene	5	U	5.	1	ug/kg	98	101	69-120	3	30
Methyl Iodide	5	U	5.	3	ug/kg	110	105	72-130	5	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/kg	104	101	69-126	2	30
4-Methyl-2-pentanone	10	U	10.	3	ug/kg	92	93	43-133	1	30
Methylene Chloride	5	U	5.	2	ug/kg	115	103	80-124	11	30
n-Propylbenzene	5	U	5.	1	ug/kg	103	105	77-120	1	30
Styrene	5	U	5.	1	ug/kg	105	104	76-120	1	30
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/kg	105	106	80-120	0	30
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/kg	98	102	71-123	4	30
Tetrachloroethene	5	U	5.	1	ug/kg	117	119	78-120	2	30
Toluene	5	U	5.	1	ug/kg	104	104	80-120	0	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/kg	98	99	64-120	1	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/kg	99	99	68-120	0	30
1,1,1-Trichloroethane	5	U	5.	1	ug/kg	103	100	63-135	3	30
1,1,2-Trichloroethane	5	U	5.	1	ug/kg	101	104	80-120	3	30
Trichloroethene	5	U	5.	1	ug/kg	103	105	80-120	1	30
Trichlorofluoromethane	5	U	5.	2	ug/kg	96	93	58-133	3	30
1,2,3-Trichloropropane	5	U	5.	1	ug/kg	105	110	71-123	5	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/kg	104	105	79-120	1	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/kg	104	105	78-120	1	30
Vinyl Acetate	10	U	10.	2	ug/kg	113	116	40-127	2	30
Vinyl Chloride	5	U	5.	1	ug/kg	97	93	59-120	4	30
m+p-Xylene	5	U	5.	1	ug/kg	105	103	80-120	2	30
o-Xylene	5	U	5.	1	ug/kg	104	103	80-120	0	30
Batch number: Y141551AA	Sample number(s): 7480324									
Acetone	20	U	20.	6	ug/l	89	88	43-149	1	30
Acrolein	100 U		100.	40	ug/l	76	76	52-129	1	30
Acrylonitrile	20	U	20.	4	ug/l	94	94	62-120	0	30
t-Amyl methyl ether	1	U	1.	0.5	ug/l	91	93	75-120	2	30
Benzene	1	U	1.	0.5	ug/l	93	95	78-120	2	30
Bromobenzene	5	U	5.	1	ug/l	95	97	80-120	3	30
Bromochloromethane	5	U	5.	1	ug/l	95	96	80-121	1	30
Bromodichloromethane	1	U	1.	0.5	ug/l	93	94	73-120	1	30
Bromoform	4	U	4.	0.5	ug/l	89	87	61-120	2	30
Bromomethane	1	U	1.	0.5	ug/l	97	98	58-120	1	30
2-Butanone	10	U	10.	3	ug/l	86	88	54-133	2	30
t-Butyl alcohol	50	U	50.	5	ug/l	96	95	75-120	1	30
n-Butylbenzene	5	U	5.	1	ug/l	88	90	68-120	3	30
sec-Butylbenzene	5	U	5.	1	ug/l	91	93	80-120	2	30
tert-Butylbenzene	5	U	5.	1	ug/l	91	93	73-120	2	30
Carbon Disulfide	5	U	5.	1	ug/l	89	89	58-126	0	30
Carbon Tetrachloride	1	U	1.	0.5	ug/l	101	104	74-130	2	30
Chlorobenzene	1	U	1.	0.5	ug/l	95	96	80-120	2	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477788
Reported: 06/09/14 at 12:48 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroethane	1	U	1.	0.5	ug/l	90	93	56-120	3	30
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/l	101	103	54-126	2	30
Chloroform	1	U	1.	0.5	ug/l	98	100	80-122	3	30
1-Chlorohexane	5	U	5.	1	ug/l	96	99	80-120	3	30
Chloromethane	1	U	1.	0.5	ug/l	103	106	63-120	3	30
2-Chlorotoluene	5	U	5.	1	ug/l	90	93	80-120	3	30
4-Chlorotoluene	5	U	5.	1	ug/l	89	93	80-120	5	30
Chlorotrifluoroethene	5	U	5.	2	ug/l	71	69	47-120	3	30
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/l	85	85	56-120	0	30
Dibromochloromethane	1	U	1.	0.5	ug/l	95	94	72-120	1	30
1,2-Dibromoethane	1	U	1.	0.5	ug/l	97	97	76-120	0	30
Dibromomethane	1	U	1.	0.5	ug/l	93	93	80-120	0	30
1,2-Dichlorobenzene	5	U	5.	1	ug/l	92	95	80-120	3	30
1,3-Dichlorobenzene	5	U	5.	1	ug/l	92	95	80-120	3	30
1,4-Dichlorobenzene	5	U	5.	1	ug/l	94	95	80-120	1	30
Dichlorodifluoromethane	1	U	1.	0.5	ug/l	94	96	48-132	3	30
1,1-Dichloroethane	1	U	1.	0.5	ug/l	92	94	80-120	3	30
1,2-Dichloroethane	1	U	1.	0.5	ug/l	98	99	65-135	1	30
1,1-Dichloroethene	1	U	1.	0.5	ug/l	108	109	76-124	1	30
cis-1,2-Dichloroethene	1	U	1.	0.5	ug/l	96	98	80-120	2	30
trans-1,2-Dichloroethene	1	U	1.	0.5	ug/l	108	113	80-120	4	30
1,2-Dichloropropane	1	U	1.	0.5	ug/l	87	91	80-120	4	30
1,3-Dichloropropane	1	U	1.	0.5	ug/l	90	90	80-120	1	30
2,2-Dichloropropane	1	U	1.	0.5	ug/l	99	99	67-124	1	30
1,1-Dichloropropene	5	U	5.	1	ug/l	98	102	80-120	3	30
cis-1,3-Dichloropropene	1	U	1.	0.5	ug/l	90	91	80-120	2	30
trans-1,3-Dichloropropene	1	U	1.	0.5	ug/l	91	91	76-120	0	30
Ethyl t-butyl ether	1	U	1.	0.5	ug/l	91	93	74-120	2	30
Ethylbenzene	1	U	1.	0.5	ug/l	93	94	79-120	1	30
Freon 113	10	U	10.	2	ug/l	98	97	67-127	1	30
Freon 133a	5	U	5.	2	ug/l	104	101	46-152	3	30
Hexachlorobutadiene	5	U	5.	2	ug/l	89	92	51-125	3	30
2-Hexanone	10	U	10.	3	ug/l	84	86	44-126	2	30
di-Isopropyl ether	1	U	1.	0.5	ug/l	89	92	65-120	3	30
Isopropylbenzene	5	U	5.	1	ug/l	95	95	77-120	0	30
p-Isopropyltoluene	5	U	5.	1	ug/l	89	92	80-120	3	30
Methyl Iodide	1	U	1.	0.5	ug/l	107	108	75-128	0	30
Methyl Tertiary Butyl Ether	1	U	1.	0.5	ug/l	104	105	75-120	1	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	86	88	51-124	3	30
Methylene Chloride	3	U	3.	2	ug/l	106	107	80-120	0	30
n-Propylbenzene	5	U	5.	1	ug/l	90	92	80-120	3	30
Styrene	5	U	5.	1	ug/l	94	95	80-120	2	30
1,1,1,2-Tetrachloroethane	1	U	1.	0.5	ug/l	96	97	80-120	1	30
1,1,2,2-Tetrachloroethane	1	U	1.	0.5	ug/l	86	87	70-120	2	30
Tetrachloroethene	1	U	1.	0.5	ug/l	100	101	80-120	1	30
Toluene	1	U	1.	0.5	ug/l	94	95	80-120	1	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	91	91	58-126	0	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	93	93	65-120	0	30
1,1,1-Trichloroethane	1	U	1.	0.5	ug/l	91	94	66-126	3	30
1,1,2-Trichloroethane	1	U	1.	0.5	ug/l	92	92	80-120	1	30
Trichloroethene	1	U	1.	0.5	ug/l	98	99	80-120	1	30
Trichlorofluoromethane	1	U	1.	0.5	ug/l	102	102	65-130	0	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	91	94	76-120	3	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	93	95	74-120	2	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	93	95	74-120	3	30
Vinyl Acetate	10	U	10.	2	ug/l	74	73	56-135	2	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477788
Reported: 06/09/14 at 12:48 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vinyl Chloride	1	U	1.	0.5	ug/l	97	98	63-120	1	30
m+p-Xylene	1	U	1.	0.5	ug/l	93	95	80-120	2	30
o-Xylene	1	U	1.	0.5	ug/l	93	94	80-120	2	30
Batch number: 14154162401B	Sample number(s): 7480323,7480325-7480326									
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14154162401B	Sample number(s): 7480323,7480325-7480326					BKG: P480416			
14a Moisture Content by 160.3						7.7	7.2	6	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12a Volatile Organics EPA8260B
Batch number: B141562AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7480323	108	109	99	95
7480325	104	100	100	91
7480326	107	103	101	93
Blank	102	104	100	95
LCS	102	104	104	100
LCSD	101	100	103	101
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141551AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7480324	101	101	96	96
Blank	101	100	96	95
LCS	101	98	98	99
LCSD	100	101	97	98
Limits:	86-118	80-120	88-110	86-115

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/28/2014
CarrierName: FedEx
AirbillNo: 770118975080

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

A-13013 G-1477788 S-7480323-26

COC No: 20140528-04
Cooler #: 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
SVL-507-SA5C-SB-5.0-6.0	5/28/14 09:40	SO	None	1 - 4 oz glass	10 day																		X																			soil moisture
SVL-507-SA5C-SB-5.0-6.0	5/28/14 09:40	SO	None	3 - Encore	10 day																		X																			
TB2-052814	5/28/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																		X																			
SVL-551-SA5C-SB-2.0-2.8	5/28/14 15:15	SO	None	1 - 4 oz glass	10 day																		X																			soil moisture
SVL-551-SA5C-SB-2.0-2.8	5/28/14 15:15	SO	None	3 - Encore	10 day																		X																			
SVL-545-SA5C-SB-3.0-3.5	5/28/14 14:10	SO	None	1 - 4 oz glass	10 day																		X																			soil moisture
SVL-545-SA5C-SB-3.0-3.5	5/28/14 14:10	SO	None	3 - Encore	10 day																		X																			

Special Instructions:

Sampler: Van Vathanak

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
	05/29/14	1600									
										5/29/14	0935

SOIL VAPOR

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 15826

Group Number(s): 1477788

Client: CDM SMITH

SSFL PHASE 3

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/29/2014 9:35
Number of Packages:	3	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	Yes		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Corey Eshleman (3647) at 10:53 on 05/29/2014

Samples Chilled Details: SSFL PHASE 3

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT121	0.9	DT	Wet	Y	Bagged	N	N
2	DT121	0.7	DT	Wet	Y	Bagged	N	N
3	DT121	1.2	DT	Wet	Y	Bagged	N	N

Extra Sample Details: SSFL PHASE 3

Sample ID on Label	Number of Extra Containers	Date on Label	Comments
SL-699-SA5B-TR-8.0	4	5/28/2014 11:00	2 ENCORE/ 2 (16oz) GLASS

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

eurofins | Lancaster Laboratories Environmental

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 12, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/29/2014
Group Number: 1477802
SDG: PH204
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SL-699-SA5B-TR-0.5 Soil	7480411
SL-699-SA5B-TR-3.0 Soil	7480412
SL-693-SA5B-TR-3.0 Soil	7480413
TB3-052814 Water	7480414
SL-529-SA5B-TR-0.5 Soil	7480415
SL-529-SA5B-TR-2.0 Soil	7480416
SL-529-SA5B-TR-3.0 Soil	7480417
SL-529-SA5B-TR-11.0 Soil	7480418

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: SL-699-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480411
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 10:00 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69905 SDG#: PH204-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/kg		ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	3.8		1.7	0.69	1
12969	Acenaphthylene	208-96-8	8.8		1.7	0.34	1
12969	Anthracene	120-12-7	20		1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	45		1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	21		1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	27		1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	10	J	18	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	4.6		1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	36		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.5	J	1.7	0.69	1
12969	Diethylphthalate	84-66-2	7.2	J	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	21		19	6.2	1
12969	Fluoranthene	206-44-0	73		1.7	0.69	1
12969	Fluorene	86-73-7	3.0		1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	3.6		1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	280		1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	250		1.7	0.69	1
12969	Naphthalene	91-20-3	76		1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	700		17	6.9	10
12969	Pyrene	129-00-0	77		1.7	0.69	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

Benzo(b)fluoranthene and benzo(k)fluoranthene were not resolved under the sample analysis conditions. The result reported for benzo(b)fluoranthene represents the combined total of both isomers.

Pesticides/PCBs	**SW-846 8081B**		ug/kg		ug/kg	ug/kg	
10590	Aldrin	309-00-2	4.3	U	4.3	0.88	5
10590	Alpha BHC	319-84-6	4.3	U	4.3	0.88	5
10590	Beta BHC	319-85-7	9.8	U	9.8	4.9	5
10590	Gamma BHC - Lindane	58-89-9	4.3	U	4.3	0.88	5
10590	Chlordane	57-74-9	88	U	88	21	5
10590	p,p-DDD	72-54-8	39	U	39	39	5
10590	p,p-DDE	72-55-9	1.8	J	8.8	1.7	5
10590	p,p-DDT	50-29-3	5.5	J	8.8	1.8	5
10590	Delta BHC	319-86-8	4.3	U	4.3	2.3	5
10590	Dieldrin	60-57-1	8.8	U	8.8	1.9	5
10590	Endosulfan I	959-98-8	2.7	J	4.3	1.1	5
10590	Endosulfan II	33213-65-9	8.8	U	8.8	1.7	5
10590	Endosulfan Sulfate	1031-07-8	4.6	J	8.8	1.7	5
10590	Endrin	72-20-8	8.8	U	8.8	3.0	5

*=This limit was used in the evaluation of the final result

Sample Description: SL-699-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480411
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 10:00 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69905 SDG#: PH204-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Endrin Aldehyde	7421-93-4	8.8	U	8.8	1.7	5
10590	Endrin Ketone	53494-70-5	9.3	U	9.3	3.1	5
10590	Heptachlor	76-44-8	1.2	J	4.3	0.88	5
10590	Heptachlor Epoxide	1024-57-3	4.3	U	4.3	0.88	5
10590	Methoxychlor	72-43-5	35	U	35	8.8	5
10590	Mirex	2385-85-5	8.8	U	8.8	1.8	5
10590	Toxaphene	8001-35-2	190	U	190	190	5
	Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.2	1
13099	PCB-1242	53469-21-9	18	U	18	4.2	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	27		18	4.5	1
13099	PCB-1260	11096-82-5	18	U	18	4.0	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	7.6		5.1	2.1	1
12952	EFH (C15-C20)	n.a.	36		5.1	2.1	1
12952	EFH (C21-C30)	n.a.	64		5.1	2.1	1
12952	EFH (C30-C40)	n.a.	65		10	4.1	1
12952	EFH (C8-C11)	n.a.	7.9		5.1	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	4.6	J	5.1	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	16		5.1	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	23		5.1	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	22		10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.6		5.1	2.1	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	16,500		39.6	7.14	1
06944	Antimony	7440-36-0	3.96	U	3.96	0.733	1
06935	Arsenic	7440-38-2	4.77		3.96	0.693	1
06946	Barium	7440-39-3	112		0.990	0.0327	1
06947	Beryllium	7440-41-7	0.839	J	0.990	0.0663	1
07914	Boron	7440-42-8	11.4		9.90	0.832	1
06949	Cadmium	7440-43-9	0.150	J	0.990	0.0753	1
01650	Calcium	7440-70-2	2,020		19.8	3.31	1
06951	Chromium	7440-47-3	22.8		2.97	0.158	1
06952	Cobalt	7440-48-4	6.66		0.990	0.0980	1
06953	Copper	7440-50-8	13.3		1.98	0.287	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-699-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480411
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 10:00 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69905 SDG#: PH204-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01654	Iron	7439-89-6	22,700		39.6	3.58	1
06955	Lead	7439-92-1	10.0		2.97	0.495	1
01656	Lithium	7439-93-2	22.6		4.0	0.34	1
01657	Magnesium	7439-95-4	4,390		9.90	1.65	1
06958	Manganese	7439-96-5	308		0.990	0.0822	1
06960	Molybdenum	7439-98-7	0.599	J	1.98	0.168	1
06961	Nickel	7440-02-0	15.2		1.98	0.129	1
10145	Phosphorus	7723-14-0	421		9.90	2.86	1
01662	Potassium	7440-09-7	3,730		99.0	8.26	1
01667	Sodium	7440-23-5	103		99.0	16.5	1
06969	Tin	7440-31-5	2.78	J	9.90	0.218	1
06970	Titanium	7440-32-6	1,090		0.990	0.168	1
06971	Vanadium	7440-62-2	38.7		0.990	0.129	1
06972	Zinc	7440-66-6	91.6		3.96	0.198	1
10146	Zirconium	7440-67-7	5.03		4.95	0.832	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.247	J	0.396	0.0990	2
06142	Silver	7440-22-4	0.0356	J	0.198	0.0257	2
06144	Strontium	7440-24-6	18.3		0.396	0.0673	2
06145	Thallium	7440-28-0	0.302		0.198	0.0297	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0153	J	0.0164	0.0098	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	4.52		0.0100	0.0100	1
	The pH was measured in water at 20.8 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.9		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-699-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480411
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 10:00 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69905 SDG#: PH204-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0931 JBQ	0.999	0.0443	1
11031	12378-PeCDD	40321-76-4	0.359 JBQ	4.99	0.0578	1
11031	123478-HxCDD	39227-28-6	0.360 JB	4.99	0.0577	1
11031	123678-HxCDD	57653-85-7	1.53 JB	4.99	0.0627	1
11031	123789-HxCDD	19408-74-3	0.998 JB	4.99	0.0582	1
11031	1234678-HpCDD	35822-46-9	35.6 B	4.99	0.0580	1
11031	OCDD	3268-87-9	576 B	9.99	0.0550	1
11031	2378-TCDF	51207-31-9	0.162 JQ	0.999	0.0667	1
11031	12378-PeCDF	57117-41-6	0.891 JB	4.99	0.0382	1
11031	23478-PeCDF	57117-31-4	0.640 JB	4.99	0.0368	1
11031	123478-HxCDF	70648-26-9	0.456 JB	4.99	0.0532	1
11031	123678-HxCDF	57117-44-9	0.517 JBQ	4.99	0.0502	1
11031	123789-HxCDF	72918-21-9	0.982 JB	4.99	0.0516	1
11031	234678-HxCDF	60851-34-5	0.475 JB	4.99	0.0512	1
11031	1234678-HpCDF	67562-39-4	5.60 B	4.99	0.0240	1
11031	1234789-HpCDF	55673-89-7	0.569 JB	4.99	0.0376	1
11031	OCDF	39001-02-0	12.1 B	9.99	0.0356	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	1.29			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	81	25 - 164
13C12-12378-PeCDD	79	25 - 181
13C12-123478-HxCDD	86	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	89	23 - 140
13C12-OCDD	91	17 - 157
13C12-2378-TCDF	77	24 - 169
13C12-12378-PeCDF	84	24 - 185
13C12-23478-PeCDF	78	21 - 178
13C12-123478-HxCDF	81	26 - 152
13C12-123678-HxCDF	86	26 - 123
13C12-234678-HxCDF	82	28 - 136
13C12-123789-HxCDF	84	29 - 147
13C12-1234678-HpCDF	104	28 - 143
13C12-1234789-HpCDF	73	26 - 138
13C12-OCDF	70	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-699-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480411
LL Group # 1477802
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Project Name: SSFL Phase 3 Sampling

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69905 SDG#: PH204-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-699-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480411
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 10:00 by AP

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3201 Jermantown Road
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69905 SDG#: PH204-01

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14151SLE026	06/05/2014 09:36	Mark A Clark	10
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14151SLE026	06/05/2014 10:08	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14151SLE026	06/02/2014 03:30	Sherry L Morrow	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141530004A	06/09/2014 08:40	Jamie L Brillhart	5
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141610021A	06/11/2014 20:22	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	2	141610021A	06/11/2014 05:20	Roman Kuropatkin	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141530004A	06/02/2014 15:00	Kelli M Barto	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540006A	06/05/2014 07:31	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540007A	06/06/2014 00:02	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540007A	06/03/2014 16:35	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540006A	06/03/2014 16:35	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14155002	06/05/2014 23:38	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14155002	06/04/2014 11:45	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141540637001	06/04/2014 22:35	John W Yanzuk II	1
06944	Antimony	SW-846 6010C	1	141540637001	06/04/2014 22:35	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	141540637001	06/04/2014 22:35	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	141540637001	06/04/2014 22:35	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	141540637001	06/04/2014 22:35	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	141540637001	06/04/2014 22:35	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	141540637001	06/04/2014 22:35	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	141540637001	06/05/2014 11:46	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141540637001	06/04/2014 22:35	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	141540637001	06/04/2014 22:35	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	141540637001	06/04/2014 22:35	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	141540637001	06/04/2014 22:35	John W Yanzuk II	1
06955	Lead	SW-846 6010C	1	141540637001	06/04/2014 22:35	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	141540637001	06/04/2014 22:35	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	141540637001	06/04/2014 22:35	John W Yanzuk II	1
06958	Manganese	SW-846 6010C	1	141540637001	06/04/2014 22:35	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	141540637001	06/04/2014 22:35	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	141540637001	06/04/2014 22:35	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010C	1	141540637001	06/04/2014 22:35	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	141540637001	06/04/2014 22:35	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	141540637001	06/04/2014 22:35	John W Yanzuk II	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-699-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480411
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 10:00 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69905 SDG#: PH204-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010C	1	141540637001	06/04/2014 22:35	John W Yanzuk II	1
06970	Titanium	SW-846 6010C	1	141540637001	06/04/2014 22:35	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	141540637001	06/04/2014 22:35	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	141540637001	06/04/2014 22:35	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	141540637001	06/04/2014 22:35	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	141540637001B	06/05/2014 06:27	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141540637001A	06/05/2014 06:27	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141540637001A	06/05/2014 06:27	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141540637001A	06/05/2014 06:27	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638001	06/09/2014 09:13	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141540637001	06/04/2014 08:27	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638001	06/05/2014 10:28	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14149039401A	05/29/2014 20:15	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14154162401B	06/03/2014 19:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-699-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480412
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 10:30 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69930 SDG#: PH204-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.6	J	1.8	0.71	1
12969	Acenaphthylene	208-96-8	2.5		1.8	0.36	1
12969	Anthracene	120-12-7	7.6		1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	14		1.8	0.71	1
12969	Benzo(a)pyrene	50-32-8	8.0		1.8	0.71	1
12969	Benzo(b)fluoranthene	205-99-2	9.4		1.8	0.71	1
12969	Benzo(e)pyrene	192-97-2	4.1	J	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	3.3		1.8	0.71	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.71	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.4	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.4	1
12969	Chrysene	218-01-9	12		1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	0.88	J	1.8	0.71	1
12969	Diethylphthalate	84-66-2	19	U	19	6.4	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.4	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.4	1
12969	Fluoranthene	206-44-0	19		1.8	0.71	1
12969	Fluorene	86-73-7	2.1		1.8	0.71	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	2.1		1.8	0.71	1
12969	1-Methylnaphthalene	90-12-0	73		1.8	0.71	1
12969	2-Methylnaphthalene	91-57-6	59		1.8	0.71	1
12969	Naphthalene	91-20-3	15		1.8	0.71	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.71	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.4	1
12969	Phenanthrene	85-01-8	180		1.8	0.71	1
12969	Pyrene	129-00-0	23		1.8	0.71	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

Benzo(b)fluoranthene and benzo(k)fluoranthene were not resolved under the sample analysis conditions. The result reported for benzo(b)fluoranthene represents the combined total of both isomers.

GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1	U	1	0.2	23.02
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.88	U	0.88	0.18	1
10590	Alpha BHC	319-84-6	0.88	U	0.88	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.88	U	0.88	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.3	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	1.4	1
10590	p,p-DDE	72-55-9	1.8	U	1.8	0.35	1
10590	p,p-DDT	50-29-3	1.8	U	1.8	0.37	1
10590	Delta BHC	319-86-8	0.88	U	0.88	0.48	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-699-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480412
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 10:30 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69930 SDG#: PH204-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Dieldrin	60-57-1	1.8	U	1.8	0.62	1
10590	Endosulfan I	959-98-8	0.39	J	0.88	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.35	1
10590	Endosulfan Sulfate	1031-07-8	1.1	J	1.8	0.35	1
10590	Endrin	72-20-8	1.8	U	1.8	0.76	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.35	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.64	1
10590	Heptachlor	76-44-8	0.54	J	0.88	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.88	U	0.88	0.18	1
10590	Methoxychlor	72-43-5	3.4	J	7.1	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.37	1
10590	Toxaphene	8001-35-2	54	U	54	54	1
	Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	3.3	J	5.3	2.1	1
12952	EFH (C21-C30)	n.a.	9.4		5.3	2.1	1
12952	EFH (C30-C40)	n.a.	13		11	4.3	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.3	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	23,200		42.2	7.61	1
06944	Antimony	7440-36-0	4.22	U	4.22	0.781	1
06935	Arsenic	7440-38-2	5.80		4.22	0.739	1
06946	Barium	7440-39-3	142		1.06	0.0348	1
06947	Beryllium	7440-41-7	1.11		1.06	0.0707	1
07914	Boron	7440-42-8	5.26	J	10.6	0.887	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-699-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480412
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 10:30 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69930 SDG#: PH204-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
06949	Cadmium	7440-43-9	1.06	U	1.06	0.0802	1
01650	Calcium	7440-70-2	2,910		21.1	3.53	1
06951	Chromium	7440-47-3	27.7		3.17	0.169	1
06952	Cobalt	7440-48-4	7.27		1.06	0.104	1
06953	Copper	7440-50-8	12.9		2.11	0.306	1
01654	Iron	7439-89-6	28,500		42.2	3.82	1
06955	Lead	7439-92-1	8.98		3.17	0.528	1
01656	Lithium	7439-93-2	30.1		4.2	0.36	1
01657	Magnesium	7439-95-4	5,560		10.6	1.76	1
06958	Manganese	7439-96-5	441		1.06	0.0876	1
06960	Molybdenum	7439-98-7	0.318	J	2.11	0.179	1
06961	Nickel	7440-02-0	17.5		2.11	0.137	1
10145	Phosphorus	7723-14-0	308		10.6	3.05	1
01662	Potassium	7440-09-7	3,240		106	8.80	1
01667	Sodium	7440-23-5	136		106	17.6	1
06969	Tin	7440-31-5	3.00	J	10.6	0.232	1
06970	Titanium	7440-32-6	1,270		1.06	0.179	1
06971	Vanadium	7440-62-2	51.9		1.06	0.137	1
06972	Zinc	7440-66-6	86.4		4.22	0.211	1
10146	Zirconium	7440-67-7	4.82	J	5.28	0.887	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.175	J	0.422	0.106	2
06142	Silver	7440-22-4	0.0581	J	0.211	0.0274	2
06144	Strontium	7440-24-6	26.5		0.422	0.0718	2
06145	Thallium	7440-28-0	0.314		0.211	0.0317	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0168	U	0.0168	0.0101	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.49		0.0100	0.0100	1
	The pH was measured in water at 21.3 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	6.2		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-699-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480412
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 10:30 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69930 SDG#: PH204-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0741 JBQ	1.03	0.0491	1
11031	12378-PeCDD	40321-76-4	0.210 JB	5.13	0.0432	1
11031	123478-HxCDD	39227-28-6	0.194 JBQ	5.13	0.0422	1
11031	123678-HxCDD	57653-85-7	0.458 JBQ	5.13	0.0447	1
11031	123789-HxCDD	19408-74-3	0.438 JBQ	5.13	0.0441	1
11031	1234678-HpCDD	35822-46-9	7.91 B	5.13	0.0432	1
11031	OCDD	3268-87-9	97.4 B	10.3	0.0413	1
11031	2378-TCDF	51207-31-9	0.108 J	1.03	0.0445	1
11031	12378-PeCDF	57117-41-6	0.294 JBQ	5.13	0.0238	1
11031	23478-PeCDF	57117-31-4	0.260 JB	5.13	0.0247	1
11031	123478-HxCDF	70648-26-9	0.206 JB	5.13	0.0421	1
11031	123678-HxCDF	57117-44-9	0.129 JBQ	5.13	0.0369	1
11031	123789-HxCDF	72918-21-9	0.222 JB	5.13	0.0444	1
11031	234678-HxCDF	60851-34-5	0.180 JBQ	5.13	0.0399	1
11031	1234678-HpCDF	67562-39-4	1.72 JB	5.13	0.0173	1
11031	1234789-HpCDF	55673-89-7	0.273 JB	5.13	0.0347	1
11031	OCDF	39001-02-0	5.64 JB	10.3	0.0405	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.471			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	95	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	82	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	87	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	75	29 - 147
13C12-1234678-HpCDF	109	28 - 143
13C12-1234789-HpCDF	65	26 - 138
13C12-OCDF	64	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-699-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480412
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 10:30 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69930 SDG#: PH204-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-699-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480412
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 10:30 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69930 SDG#: PH204-02

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14151SLE026	06/04/2014 09:27	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14151SLE026	06/02/2014 03:30	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14154A16A	06/03/2014 22:22	Laura M Krieger	23.02
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414934641	05/29/2014 15:02	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414934641	05/29/2014 15:03	Mitchell R Washel	n.a.
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141530004A	06/09/2014 08:54	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141610021A	06/11/2014 20:40	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	2	141610021A	06/11/2014 05:20	Roman Kuropatkin	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141530004A	06/02/2014 15:00	Kelli M Barto	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540006A	06/05/2014 06:04	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540007A	06/05/2014 19:42	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540007A	06/03/2014 16:35	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540006A	06/03/2014 16:35	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14155002	06/06/2014 00:34	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14155002	06/04/2014 11:45	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1
06944	Antimony	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1
06951	Chromium	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1
06955	Lead	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1
06958	Manganese	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-699-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480412
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 10:30 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69930 SDG#: PH204-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10145	Phosphorus	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1
06970	Titanium	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	141540637001	06/04/2014 22:39	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	141540637001B	06/05/2014 06:30	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141540637001A	06/05/2014 06:30	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141540637001A	06/05/2014 06:30	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141540637001A	06/05/2014 06:30	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638001	06/09/2014 09:15	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141540637001	06/04/2014 08:27	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638001	06/05/2014 10:28	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14149039401A	05/29/2014 20:15	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14154162401B	06/03/2014 19:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480413
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 08:35 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69330 SDG#: PH204-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.2	J	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	2.0		1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	5.7		1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	5.0		1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	6.7		1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	2.4		1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	2.3		1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	6.4		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	0.87	J	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.2	1
12969	Fluoranthene	206-44-0	11		1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	2.2		1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	8.4		1.7	0.69	1
12969	Pyrene	129-00-0	10		1.7	0.69	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.3	U	1.3	0.3	30.41
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.86	U	0.86	0.18	1
10590	Alpha BHC	319-84-6	0.86	U	0.86	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.86	U	0.86	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.2	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.34	1
10590	p,p-DDE	72-55-9	1.8	U	1.8	0.34	1
10590	p,p-DDT	50-29-3	0.69	J	1.8	0.36	1
10590	Delta BHC	319-86-8	0.86	U	0.86	0.47	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.34	1
10590	Endosulfan I	959-98-8	0.86	U	0.86	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.34	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480413
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 08:35 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69330 SDG#: PH204-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Endrin	72-20-8	1.8	U	1.8	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.34	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.62	1
10590	Heptachlor	76-44-8	0.86	U	0.86	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.86	U	0.86	0.18	1
10590	Methoxychlor	72-43-5	7.0	U	7.0	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	15	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.4	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.2	1
13099	PCB-1242	53469-21-9	17	U	17	4.2	1
13099	PCB-1248	12672-29-6	17	U	17	3.4	1
13099	PCB-1254	11097-69-1	17	U	17	4.5	1
13099	PCB-1260	11096-82-5	17	U	17	4.0	1
13099	PCB-1262	37324-23-5	17	U	17	3.4	1
13099	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	6.5		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	13		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,700		41.1	7.41	1
06944	Antimony	7440-36-0	4.11	U	4.11	0.761	1
06935	Arsenic	7440-38-2	4.82		4.11	0.720	1
06946	Barium	7440-39-3	92.3		1.03	0.0339	1
06947	Beryllium	7440-41-7	0.664	J	1.03	0.0689	1
07914	Boron	7440-42-8	3.13	J	10.3	0.864	1
06949	Cadmium	7440-43-9	1.03	U	1.03	0.0781	1
01650	Calcium	7440-70-2	2,390		20.6	3.43	1
06951	Chromium	7440-47-3	18.8		3.08	0.165	1
06952	Cobalt	7440-48-4	4.88		1.03	0.102	1
06953	Copper	7440-50-8	8.93		2.06	0.298	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480413
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 08:35 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69330 SDG#: PH204-03

CAT No.	Analysis Name		CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals		**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01654	Iron		7439-89-6	18,400		41.1	3.72	1
06955	Lead		7439-92-1	6.24		3.08	0.514	1
01656	Lithium		7439-93-2	17.6		4.1	0.35	1
01657	Magnesium		7439-95-4	3,750		10.3	1.72	1
06958	Manganese		7439-96-5	223		1.03	0.0853	1
06960	Molybdenum		7439-98-7	0.251	J	2.06	0.175	1
06961	Nickel		7440-02-0	10.3		2.06	0.134	1
10145	Phosphorus		7723-14-0	254		10.3	2.97	1
01662	Potassium		7440-09-7	2,270		103	8.57	1
01667	Sodium		7440-23-5	86.8	J	103	17.2	1
06969	Tin		7440-31-5	2.61	J	10.3	0.226	1
06970	Titanium		7440-32-6	858		1.03	0.175	1
06971	Vanadium		7440-62-2	35.1		1.03	0.134	1
06972	Zinc		7440-66-6	40.6		4.11	0.206	1
10146	Zirconium		7440-67-7	3.25	J	5.14	0.864	1
		SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium		7782-49-2	0.148	J	0.411	0.103	2
06142	Silver		7440-22-4	0.206	U	0.206	0.0267	2
06144	Strontium		7440-24-6	26.7		0.411	0.0699	2
06145	Thallium		7440-28-0	0.208		0.206	0.0308	2
		SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A		7439-97-6	0.0122	J	0.0169	0.0101	1
Wet Chemistry		**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D		n.a.	7.47		0.0100	0.0100	1
	The pH was measured in water at 21.1 C.							
Wet Chemistry		**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3		n.a.	3.7		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.							

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480413
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 08:35 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69330 SDG#: PH204-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.03	U	1.03	0.0417	1
11031	12378-PeCDD	40321-76-4	0.0696	JBQ	5.13	0.0396	1
11031	123478-HxCDD	39227-28-6	0.0454	JBQ	5.13	0.0320	1
11031	123678-HxCDD	57653-85-7	0.175	JBQ	5.13	0.0330	1
11031	123789-HxCDD	19408-74-3	0.248	JBQ	5.13	0.0288	1
11031	1234678-HpCDD	35822-46-9	2.18	JB	5.13	0.0318	1
11031	OCDD	3268-87-9	30.8	B	10.3	0.0324	1
11031	2378-TCDF	51207-31-9	1.03	U	1.03	0.0464	1
11031	12378-PeCDF	57117-41-6	0.139	JBQ	5.13	0.0218	1
11031	23478-PeCDF	57117-31-4	0.108	JBQ	5.13	0.0218	1
11031	123478-HxCDF	70648-26-9	0.0775	JBQ	5.13	0.0343	1
11031	123678-HxCDF	57117-44-9	0.100	JBQ	5.13	0.0290	1
11031	123789-HxCDF	72918-21-9	0.277	JBQ	5.13	0.0318	1
11031	234678-HxCDF	60851-34-5	0.149	JBQ	5.13	0.0323	1
11031	1234678-HpCDF	67562-39-4	0.524	JB	5.13	0.0151	1
11031	1234789-HpCDF	55673-89-7	0.0886	JBQ	5.13	0.0274	1
11031	OCDF	39001-02-0	1.03	JBQ	10.3	0.0373	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0363				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	79	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	86	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	91	28 - 130
13C12-1234678-HpCDD	88	23 - 140
13C12-OCDD	95	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	86	24 - 185
13C12-23478-PeCDF	78	21 - 178
13C12-123478-HxCDF	79	26 - 152
13C12-123678-HxCDF	88	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	86	29 - 147
13C12-1234678-HpCDF	112	28 - 143
13C12-1234789-HpCDF	69	26 - 138
13C12-OCDF	66	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480413
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 08:35 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69330 SDG#: PH204-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480413
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 08:35 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69330 SDG#: PH204-03

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14151SLE026	06/04/2014 10:00	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14151SLE026	06/02/2014 03:30	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14154A16A	06/03/2014 23:00	Laura M Krieger	30.41
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414934641	05/29/2014 15:04	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414934641	05/29/2014 15:04	Mitchell R Washel	n.a.
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141530004A	06/09/2014 09:21	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141610021A	06/11/2014 20:59	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	2	141610021A	06/11/2014 05:20	Roman Kuropatkin	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141530004A	06/02/2014 15:00	Kelli M Barto	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540006A	06/05/2014 06:26	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540007A	06/05/2014 23:40	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540007A	06/03/2014 16:35	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540006A	06/03/2014 16:35	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14155002	06/06/2014 01:31	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14155002	06/04/2014 11:45	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141540637001	06/04/2014 22:50	John W Yanzuk II	1
06944	Antimony	SW-846 6010C	1	141540637001	06/04/2014 22:50	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	141540637001	06/04/2014 22:50	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	141540637001	06/04/2014 22:50	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	141540637001	06/04/2014 22:50	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	141540637001	06/04/2014 22:50	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	141540637001	06/04/2014 22:50	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	141540637001	06/05/2014 11:50	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141540637001	06/04/2014 22:50	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	141540637001	06/04/2014 22:50	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	141540637001	06/04/2014 22:50	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	141540637001	06/04/2014 22:50	John W Yanzuk II	1
06955	Lead	SW-846 6010C	1	141540637001	06/04/2014 22:50	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	141540637001	06/04/2014 22:50	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	141540637001	06/04/2014 22:50	John W Yanzuk II	1
06958	Manganese	SW-846 6010C	1	141540637001	06/04/2014 22:50	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	141540637001	06/04/2014 22:50	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	141540637001	06/04/2014 22:50	John W Yanzuk II	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-693-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480413
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 08:35 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69330 SDG#: PH204-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10145	Phosphorus	SW-846 6010C	1	141540637001	06/04/2014 22:50	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	141540637001	06/04/2014 22:50	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	141540637001	06/04/2014 22:50	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	141540637001	06/04/2014 22:50	John W Yanzuk II	1
06970	Titanium	SW-846 6010C	1	141540637001	06/04/2014 22:50	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	141540637001	06/04/2014 22:50	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	141540637001	06/04/2014 22:50	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	141540637001	06/04/2014 22:50	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	141540637001B	06/05/2014 06:37	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141540637001A	06/05/2014 06:37	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141540637001A	06/05/2014 06:37	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141540637001A	06/05/2014 06:37	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638001	06/09/2014 09:17	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141540637001	06/04/2014 08:27	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638001	06/05/2014 10:28	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14149039401A	05/29/2014 20:15	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14154162401B	06/03/2014 19:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: TB3-052814 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7480414
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 08:00

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB328 SDG#: PH204-04TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14150B94A	06/03/2014 11:08	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14150B94A	06/03/2014 11:08	Laura M Krieger	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480415
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 13:05 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52905 SDG#: PH204-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.9		1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	6.7		1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	4.7		1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	7.0		1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	4.3	J	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	2.7		1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	2.7		1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	7.3	J	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	6.9		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	0.97	J	1.7	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	16	J	19	6.3	1
12969	Fluoranthene	206-44-0	12		1.7	0.70	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.9		1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.70	1
12969	Morpholine	110-91-8	21	U	21	21	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	7.9	J	19	6.3	1
12969	Phenanthrene	85-01-8	5.9		1.7	0.70	1
12969	Pyrene	129-00-0	8.6		1.7	0.70	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	7.6	J	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.0	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480415
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 13:05 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52905 SDG#: PH204-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	33		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	83		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	18		5.2	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	40		10	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,600		41.1	7.40	1
06944	Antimony	7440-36-0	4.11	U	4.11	0.760	1
06935	Arsenic	7440-38-2	3.56	J	4.11	0.719	1
06946	Barium	7440-39-3	82.8		1.03	0.0339	1
06947	Beryllium	7440-41-7	0.513	J	1.03	0.0688	1
07914	Boron	7440-42-8	3.58	J	10.3	0.862	1
06949	Cadmium	7440-43-9	0.103	J	1.03	0.0780	1
01650	Calcium	7440-70-2	6,820		20.5	3.43	1
06951	Chromium	7440-47-3	15.8		3.08	0.164	1
06952	Cobalt	7440-48-4	4.42		1.03	0.102	1
06953	Copper	7440-50-8	8.36		2.05	0.298	1
01654	Iron	7439-89-6	18,100		41.1	3.72	1
06955	Lead	7439-92-1	4.94		3.08	0.513	1
01656	Lithium	7439-93-2	20.0		4.1	0.35	1
01657	Magnesium	7439-95-4	4,180		10.3	1.71	1
06958	Manganese	7439-96-5	263		1.03	0.0852	1
06960	Molybdenum	7439-98-7	0.463	J	2.05	0.175	1
06961	Nickel	7440-02-0	8.89		2.05	0.133	1
10145	Phosphorus	7723-14-0	389		10.3	2.97	1
01662	Potassium	7440-09-7	2,780		103	8.56	1
01667	Sodium	7440-23-5	460		103	17.1	1
06969	Tin	7440-31-5	2.84	J	10.3	0.226	1
06970	Titanium	7440-32-6	933		1.03	0.175	1
06971	Vanadium	7440-62-2	29.8		1.03	0.133	1
06972	Zinc	7440-66-6	67.2		4.11	0.205	1
10146	Zirconium	7440-67-7	3.47	J	5.13	0.862	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.164	J	0.411	0.103	2
06142	Silver	7440-22-4	0.0437	J	0.205	0.0267	2
06144	Strontium	7440-24-6	27.7		0.411	0.0698	2
06145	Thallium	7440-28-0	0.207		0.205	0.0308	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0264		0.0168	0.0101	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480415
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 13:05 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52905 SDG#: PH204-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 21.3 C.	n.a.	8.78	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	4.5	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480415
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 13:05 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52905 SDG#: PH204-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.04	U	1.04	0.0443	1
11031	12378-PeCDD	40321-76-4	0.263	JB	5.20	0.0489	1
11031	123478-HxCDD	39227-28-6	0.275	JBQ	5.20	0.0652	1
11031	123678-HxCDD	57653-85-7	0.943	JB	5.20	0.0679	1
11031	123789-HxCDD	19408-74-3	0.969	JB	5.20	0.0614	1
11031	1234678-HpCDD	35822-46-9	26.2	B	5.20	0.0532	1
11031	OCDD	3268-87-9	347	B	10.4	0.0448	1
11031	2378-TCDF	51207-31-9	0.0494	JQ	1.04	0.0399	1
11031	12378-PeCDF	57117-41-6	0.177	JBQ	5.20	0.0254	1
11031	23478-PeCDF	57117-31-4	0.142	JB	5.20	0.0227	1
11031	123478-HxCDF	70648-26-9	0.215	JB	5.20	0.0445	1
11031	123678-HxCDF	57117-44-9	0.279	JBQ	5.20	0.0445	1
11031	123789-HxCDF	72918-21-9	0.205	JBQ	5.20	0.0442	1
11031	234678-HxCDF	60851-34-5	0.338	JB	5.20	0.0412	1
11031	1234678-HpCDF	67562-39-4	3.45	JB	5.20	0.0231	1
11031	1234789-HpCDF	55673-89-7	0.289	JBQ	5.20	0.0313	1
11031	OCDF	39001-02-0	8.53	JB	10.4	0.0351	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.955				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	80	25 - 164
13C12-12378-PeCDD	80	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	88	28 - 130
13C12-123789-HxCDD	91	28 - 130
13C12-1234678-HpCDD	92	23 - 140
13C12-OCDD	100	17 - 157
13C12-2378-TCDF	80	24 - 169
13C12-12378-PeCDF	83	24 - 185
13C12-23478-PeCDF	84	21 - 178
13C12-123478-HxCDF	86	26 - 152
13C12-123678-HxCDF	89	26 - 123
13C12-234678-HxCDF	87	28 - 136
13C12-123789-HxCDF	92	29 - 147
13C12-1234678-HpCDF	100	28 - 143
13C12-1234789-HpCDF	82	26 - 138
13C12-OCDF	83	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480415
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 13:05 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52905 SDG#: PH204-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480415
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 13:05 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52905 SDG#: PH204-05

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM 8270D	SW-846 8270D SIM	1	14151SLE026	06/04/2014 12:09	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14151SLE026	06/02/2014 03:30	Sherry L Morrow	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141610021A	06/11/2014 21:17	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	2	141610021A	06/11/2014 05:20	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540006A	06/05/2014 08:57	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540007A	06/06/2014 00:45	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540007A	06/03/2014 16:35	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540006A	06/03/2014 16:35	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14155002	06/06/2014 02:27	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14155002	06/04/2014 11:45	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1
06944	Antimony	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1
06951	Chromium	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1
06955	Lead	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1
06958	Manganese	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1
06970	Titanium	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	141540637001	06/04/2014 22:54	John W Yanzuk II	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-0.5 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480415
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 13:05 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52905 SDG#: PH204-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	141540637001B	06/05/2014 06:39	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141540637001A	06/05/2014 06:39	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141540637001A	06/05/2014 06:39	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141540637001A	06/05/2014 06:39	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638001	06/09/2014 09:19	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141540637001	06/04/2014 08:27	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638001	06/05/2014 10:28	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14149039401A	05/29/2014 20:15	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14154162401B	06/03/2014 19:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-2.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480416
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 14:05 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52920 SDG#: PH204-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.72	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.72	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.72	1
12969	Benzo(b)fluoranthene	205-99-2	0.73	J	1.8	0.72	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.72	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.72	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.5	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.5	1
12969	Chrysene	218-01-9	0.78	J	1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.72	1
12969	Diethylphthalate	84-66-2	20	U	20	6.5	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.5	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	12	J	20	6.5	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.72	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.72	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.72	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.72	1
12969	2-Methylnaphthalene	91-57-6	1.1	J	1.8	0.72	1
12969	Morpholine	110-91-8	22	U	22	22	1
12969	Naphthalene	91-20-3	0.98	J	1.8	0.72	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.72	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.5	1
12969	Phenanthrene	85-01-8	0.89	J	1.8	0.72	1
12969	Pyrene	129-00-0	0.78	J	1.8	0.72	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2	23.28
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.6	1
13099	PCB-1221	11104-28-2	18	U	18	5.5	1
13099	PCB-1232	11141-16-5	18	U	18	4.4	1
13099	PCB-1242	53469-21-9	18	U	18	4.4	1
13099	PCB-1248	12672-29-6	18	U	18	3.6	1
13099	PCB-1254	11097-69-1	8.6	J	18	4.8	1
13099	PCB-1260	11096-82-5	6.9	J	18	4.2	1
13099	PCB-1262	37324-23-5	18	U	18	3.6	1
13099	PCB-1268	11100-14-4	18	U	18	3.6	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-2.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480416
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 14:05 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52920 SDG#: PH204-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.4	U	5.4	2.2	1
12952	EFH (C15-C20)	n.a.	5.4	U	5.4	2.2	1
12952	EFH (C21-C30)	n.a.	10		5.4	2.2	1
12952	EFH (C30-C40)	n.a.	14		11	4.3	1
12952	EFH (C8-C11)	n.a.	5.4	U	5.4	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	3.2	J	5.4	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	5.2	J	11	4.3	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,400		42.9	7.73	1
06944	Antimony	7440-36-0	4.29	U	4.29	0.794	1
06935	Arsenic	7440-38-2	5.10		4.29	0.751	1
06946	Barium	7440-39-3	82.7		1.07	0.0354	1
06947	Beryllium	7440-41-7	0.662	J	1.07	0.0719	1
07914	Boron	7440-42-8	2.98	J	10.7	0.901	1
06949	Cadmium	7440-43-9	1.07	U	1.07	0.0815	1
01650	Calcium	7440-70-2	2,390		21.5	3.58	1
06951	Chromium	7440-47-3	17.2		3.22	0.172	1
06952	Cobalt	7440-48-4	4.98		1.07	0.106	1
06953	Copper	7440-50-8	8.33		2.15	0.311	1
01654	Iron	7439-89-6	19,600		42.9	3.88	1
06955	Lead	7439-92-1	5.90		3.22	0.536	1
01656	Lithium	7439-93-2	23.2		4.3	0.36	1
01657	Magnesium	7439-95-4	4,060		10.7	1.79	1
06958	Manganese	7439-96-5	261		1.07	0.0890	1
06960	Molybdenum	7439-98-7	0.234	J	2.15	0.182	1
06961	Nickel	7440-02-0	10.2		2.15	0.139	1
10145	Phosphorus	7723-14-0	334		10.7	3.10	1
01662	Potassium	7440-09-7	3,010		107	8.95	1
01667	Sodium	7440-23-5	142		107	17.9	1
06969	Tin	7440-31-5	2.85	J	10.7	0.236	1
06970	Titanium	7440-32-6	1,040		1.07	0.182	1
06971	Vanadium	7440-62-2	34.7		1.07	0.139	1
06972	Zinc	7440-66-6	119		4.29	0.215	1
10146	Zirconium	7440-67-7	3.39	J	5.36	0.901	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.126	J	0.429	0.107	2
06142	Silver	7440-22-4	0.215	U	0.215	0.0279	2
06144	Strontium	7440-24-6	17.4		0.429	0.0729	2
06145	Thallium	7440-28-0	0.268		0.215	0.0322	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0202		0.0170	0.0102	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-2.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480416
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 14:05 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52920 SDG#: PH204-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 21.4 C.	n.a.	6.88	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	7.7	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-2.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480416
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 14:05 by AP

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Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52920 SDG#: PH204-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.08	U	1.08	0.0539	1
11031	12378-PeCDD	40321-76-4	0.0879	JB	5.41	0.0513	1
11031	123478-HxCDD	39227-28-6	0.0529	JB	5.41	0.0435	1
11031	123678-HxCDD	57653-85-7	0.402	JB	5.41	0.0443	1
11031	123789-HxCDD	19408-74-3	0.319	JBQ	5.41	0.0415	1
11031	1234678-HpCDD	35822-46-9	8.73	B	5.41	0.0428	1
11031	OCDD	3268-87-9	80.9	B	10.8	0.0421	1
11031	2378-TCDF	51207-31-9	1.08	U	1.08	0.0511	1
11031	12378-PeCDF	57117-41-6	0.354	JB	5.41	0.0247	1
11031	23478-PeCDF	57117-31-4	0.0958	JBQ	5.41	0.0253	1
11031	123478-HxCDF	70648-26-9	0.134	JBQ	5.41	0.0401	1
11031	123678-HxCDF	57117-44-9	0.112	JBQ	5.41	0.0341	1
11031	123789-HxCDF	72918-21-9	0.227	JBQ	5.41	0.0451	1
11031	234678-HxCDF	60851-34-5	0.119	JB	5.41	0.0373	1
11031	1234678-HpCDF	67562-39-4	0.674	JBQ	5.41	0.0212	1
11031	1234789-HpCDF	55673-89-7	0.145	JBQ	5.41	0.0479	1
11031	OCDF	39001-02-0	1.57	JB	10.8	0.0512	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.268				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	80	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	91	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	84	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	73	26 - 152
13C12-123678-HxCDF	85	26 - 123
13C12-234678-HxCDF	75	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	115	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	56	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-2.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480416
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 14:05 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52920 SDG#: PH204-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-2.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480416
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 14:05 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
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Fairfax VA 22030

52920 SDG#: PH204-06

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM 8270D	SW-846 8270D SIM	1	14151SLE026	06/04/2014 10:32	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14151SLE026	06/02/2014 03:30	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14154A16A	06/03/2014 23:38	Laura M Krieger	23.28
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414934641	05/29/2014 15:05	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414934641	05/29/2014 15:06	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141610021A	06/11/2014 21:35	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	2	141610021A	06/11/2014 05:20	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540006A	06/05/2014 05:43	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540007A	06/05/2014 22:57	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540007A	06/03/2014 16:35	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540006A	06/03/2014 16:35	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14155002	06/06/2014 03:24	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14155002	06/04/2014 11:45	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141540637001	06/04/2014 22:58	John W Yanzuk II	1
06944	Antimony	SW-846 6010C	1	141540637001	06/04/2014 22:58	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	141540637001	06/04/2014 22:58	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	141540637001	06/04/2014 22:58	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	141540637001	06/04/2014 22:58	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	141540637001	06/04/2014 22:58	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	141540637001	06/04/2014 22:58	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	141540637001	06/05/2014 12:02	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141540637001	06/04/2014 22:58	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	141540637001	06/04/2014 22:58	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	141540637001	06/04/2014 22:58	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	141540637001	06/04/2014 22:58	John W Yanzuk II	1
06955	Lead	SW-846 6010C	1	141540637001	06/04/2014 22:58	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	141540637001	06/04/2014 22:58	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	141540637001	06/04/2014 22:58	John W Yanzuk II	1
06958	Manganese	SW-846 6010C	1	141540637001	06/04/2014 22:58	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	141540637001	06/04/2014 22:58	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	141540637001	06/04/2014 22:58	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010C	1	141540637001	06/04/2014 22:58	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	141540637001	06/04/2014 22:58	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	141540637001	06/04/2014 22:58	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	141540637001	06/04/2014 22:58	John W Yanzuk II	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-2.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480416
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 14:05 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52920 SDG#: PH204-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010C	1	141540637001	06/04/2014 22:58	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	141540637001	06/04/2014 22:58	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	141540637001	06/04/2014 22:58	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	141540637001	06/04/2014 22:58	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	141540637001B	06/05/2014 06:42	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141540637001A	06/05/2014 06:42	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141540637001A	06/05/2014 06:42	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141540637001A	06/05/2014 06:42	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638001	06/09/2014 09:21	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141540637001	06/04/2014 08:27	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638001	06/05/2014 10:28	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14149039401A	05/29/2014 20:15	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14154162401B	06/03/2014 19:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480417
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 14:15 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52930 SDG#: PH204-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.71	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	1.0	J	1.8	0.71	1
12969	Benzo(a)pyrene	50-32-8	0.87	J	1.8	0.71	1
12969	Benzo(b)fluoranthene	205-99-2	1.9		1.8	0.71	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	1.5	J	1.8	0.71	1
12969	Benzo(k)fluoranthene	207-08-9	0.84	J	1.8	0.71	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.4	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.4	1
12969	Chrysene	218-01-9	1.7	J	1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.71	1
12969	Diethylphthalate	84-66-2	19	U	19	6.4	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.4	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.4	1
12969	Fluoranthene	206-44-0	1.6	J	1.8	0.71	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.71	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.71	1
12969	1-Methylnaphthalene	90-12-0	0.94	J	1.8	0.71	1
12969	2-Methylnaphthalene	91-57-6	1.5	J	1.8	0.71	1
12969	Morpholine	110-91-8	21	U	21	21	1
12969	Naphthalene	91-20-3	1.2	J	1.8	0.71	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.71	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.4	1
12969	Phenanthrene	85-01-8	1.1	J	1.8	0.71	1
12969	Pyrene	129-00-0	1.3	J	1.8	0.71	1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: benzo(e)pyrene						
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	9.4	U	9.4	1.9	220.46
	Reporting limits were raised due to sample foaming.						
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.4	1
13099	PCB-1242	53469-21-9	18	U	18	4.4	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.7	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480417
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 14:15 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52930 SDG#: PH204-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.4	U	5.4	2.1	1
12952	EFH (C15-C20)	n.a.	5.4	U	5.4	2.1	1
12952	EFH (C21-C30)	n.a.	14		5.4	2.1	1
12952	EFH (C30-C40)	n.a.	33		11	4.3	1
12952	EFH (C8-C11)	n.a.	5.4	U	5.4	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.4	U	5.4	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.4	U	5.4	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	7.7		5.4	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	16		11	4.3	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.4	U	5.4	2.1	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,000		41.6	7.49	1
06944	Antimony	7440-36-0	4.16	U	4.16	0.769	1
06935	Arsenic	7440-38-2	4.31		4.16	0.728	1
06946	Barium	7440-39-3	90.3		1.04	0.0343	1
06947	Beryllium	7440-41-7	0.631	J	1.04	0.0696	1
07914	Boron	7440-42-8	0.940	J	10.4	0.873	1
06949	Cadmium	7440-43-9	1.04	U	1.04	0.0790	1
01650	Calcium	7440-70-2	4,250		20.8	3.47	1
06951	Chromium	7440-47-3	17.6		3.12	0.166	1
06952	Cobalt	7440-48-4	5.10		1.04	0.103	1
06953	Copper	7440-50-8	7.81		2.08	0.301	1
01654	Iron	7439-89-6	20,100		41.6	3.76	1
06955	Lead	7439-92-1	5.53		3.12	0.520	1
01656	Lithium	7439-93-2	24.5		4.2	0.35	1
01657	Magnesium	7439-95-4	4,580		10.4	1.74	1
06958	Manganese	7439-96-5	274		1.04	0.0863	1
06960	Molybdenum	7439-98-7	2.08	U	2.08	0.177	1
06961	Nickel	7440-02-0	9.80		2.08	0.135	1
10145	Phosphorus	7723-14-0	351		10.4	3.00	1
01662	Potassium	7440-09-7	3,050		104	8.67	1
01667	Sodium	7440-23-5	252		104	17.4	1
06969	Tin	7440-31-5	2.80	J	10.4	0.229	1
06970	Titanium	7440-32-6	1,060		1.04	0.177	1
06971	Vanadium	7440-62-2	35.3		1.04	0.135	1
06972	Zinc	7440-66-6	63.8		4.16	0.208	1
10146	Zirconium	7440-67-7	3.03	J	5.20	0.873	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.130	J	0.416	0.104	2
06142	Silver	7440-22-4	0.0532	J	0.208	0.0270	2
06144	Strontium	7440-24-6	21.6		0.416	0.0707	2
06145	Thallium	7440-28-0	0.305		0.208	0.0312	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480417
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 14:15 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52930 SDG#: PH204-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 7471B**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0301	0.0169	0.0101	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 21.3 C.	n.a.	8.16	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	6.6	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480417
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 14:15 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52930 SDG#: PH204-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0545	JB	1.04	0.0477	1
11031	12378-PeCDD	40321-76-4	0.125	JBQ	5.20	0.0458	1
11031	123478-HxCDD	39227-28-6	0.102	JB	5.20	0.0493	1
11031	123678-HxCDD	57653-85-7	0.623	JBQ	5.20	0.0489	1
11031	123789-HxCDD	19408-74-3	0.459	JBQ	5.20	0.0450	1
11031	1234678-HpCDD	35822-46-9	17.2	B	5.20	0.0449	1
11031	OCDD	3268-87-9	241	B	10.4	0.0365	1
11031	2378-TCDF	51207-31-9	0.0527	J	1.04	0.0378	1
11031	12378-PeCDF	57117-41-6	0.206	JB	5.20	0.0196	1
11031	23478-PeCDF	57117-31-4	0.162	JB	5.20	0.0195	1
11031	123478-HxCDF	70648-26-9	0.278	JBQ	5.20	0.0431	1
11031	123678-HxCDF	57117-44-9	0.191	JB	5.20	0.0367	1
11031	123789-HxCDF	72918-21-9	0.178	JBQ	5.20	0.0397	1
11031	234678-HxCDF	60851-34-5	0.201	JBQ	5.20	0.0393	1
11031	1234678-HpCDF	67562-39-4	2.28	JB	5.20	0.0159	1
11031	1234789-HpCDF	55673-89-7	0.333	JB	5.20	0.0288	1
11031	OCDF	39001-02-0	5.73	JB	10.4	0.0359	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.416				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	83	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	90	32 - 141
13C12-123678-HxCDD	92	28 - 130
13C12-123789-HxCDD	95	28 - 130
13C12-1234678-HpCDD	97	23 - 140
13C12-OCDD	108	17 - 157
13C12-2378-TCDF	78	24 - 169
13C12-12378-PeCDF	91	24 - 185
13C12-23478-PeCDF	85	21 - 178
13C12-123478-HxCDF	84	26 - 152
13C12-123678-HxCDF	94	26 - 123
13C12-234678-HxCDF	86	28 - 136
13C12-123789-HxCDF	90	29 - 147
13C12-1234678-HpCDF	121	28 - 143
13C12-1234789-HpCDF	76	26 - 138
13C12-OCDF	76	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480417
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 14:15 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52930 SDG#: PH204-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480417
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 14:15 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52930 SDG#: PH204-07

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM 8270D	SW-846 8270D SIM	1	14151SLE026	06/04/2014 11:05	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14151SLE026	06/02/2014 03:30	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14154A16A	06/04/2014 15:47	Laura M Krieger	220.46
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414934641	05/29/2014 15:06	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414934641	05/29/2014 15:07	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141610021A	06/11/2014 21:54	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	2	141610021A	06/11/2014 05:20	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540006A	06/05/2014 08:14	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540007A	06/06/2014 00:23	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540007A	06/03/2014 16:35	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540006A	06/03/2014 16:35	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14155002	06/06/2014 04:20	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14155002	06/04/2014 11:45	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141540637001	06/05/2014 12:06	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	141540637001	06/05/2014 12:06	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	141540637001	06/05/2014 12:06	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	141540637001	06/04/2014 23:02	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	141540637001	06/05/2014 12:06	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	141540637001	06/05/2014 12:06	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	141540637001	06/05/2014 12:06	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141540637001	06/05/2014 12:06	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141540637001	06/05/2014 12:06	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	141540637001	06/05/2014 12:06	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	141540637001	06/05/2014 12:06	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	141540637001	06/05/2014 12:06	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	141540637001	06/05/2014 12:06	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	141540637001	06/05/2014 12:06	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	141540637001	06/05/2014 12:06	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	141540637001	06/04/2014 23:02	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	141540637001	06/04/2014 23:02	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	141540637001	06/05/2014 12:06	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	141540637001	06/05/2014 12:06	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	141540637001	06/05/2014 12:06	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	141540637001	06/05/2014 12:06	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	141540637001	06/05/2014 12:06	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480417
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 14:15 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52930 SDG#: PH204-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010C	1	141540637001	06/05/2014 12:06	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	141540637001	06/05/2014 12:06	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	141540637001	06/05/2014 12:06	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	141540637001	06/05/2014 12:06	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	141540637001B	06/05/2014 06:44	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141540637001A	06/05/2014 06:44	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141540637001A	06/05/2014 06:44	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141540637001A	06/05/2014 06:44	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638001	06/09/2014 09:23	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141540637001	06/04/2014 08:27	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638001	06/05/2014 10:28	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14149039401A	05/29/2014 20:15	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14154162401B	06/03/2014 19:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-11.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480418
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 14:30 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52911 SDG#: PH204-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.73	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	1.3	J	1.8	0.73	1
12969	Benzo(a)pyrene	50-32-8	1.1	J	1.8	0.73	1
12969	Benzo(b)fluoranthene	205-99-2	1.5	J	1.8	0.73	1
12969	Benzo(e)pyrene	192-97-2	19	U	19	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	0.80	J	1.8	0.73	1
12969	Benzo(k)fluoranthene	207-08-9	0.75	J	1.8	0.73	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.6	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.6	1
12969	Chrysene	218-01-9	1.4	J	1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.73	1
12969	Diethylphthalate	84-66-2	20	U	20	6.6	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.6	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	12	J	20	6.6	1
12969	Fluoranthene	206-44-0	1.5	J	1.8	0.73	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.73	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.73	1
12969	1-Methylnaphthalene	90-12-0	1.5	J	1.8	0.73	1
12969	2-Methylnaphthalene	91-57-6	1.3	J	1.8	0.73	1
12969	Morpholine	110-91-8	22	U	22	22	1
12969	Naphthalene	91-20-3	1.0	J	1.8	0.73	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.73	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.6	1
12969	Phenanthrene	85-01-8	0.99	J	1.8	0.73	1
12969	Pyrene	129-00-0	1.4	J	1.8	0.73	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1	U	1	0.2	21.82
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.6	1
13099	PCB-1221	11104-28-2	18	U	18	5.5	1
13099	PCB-1232	11141-16-5	18	U	18	4.4	1
13099	PCB-1242	53469-21-9	18	U	18	4.4	1
13099	PCB-1248	12672-29-6	18	U	18	3.6	1
13099	PCB-1254	11097-69-1	18	U	18	4.8	1
13099	PCB-1260	11096-82-5	18	U	18	4.2	1
13099	PCB-1262	37324-23-5	18	U	18	3.6	1
13099	PCB-1268	11100-14-4	18	U	18	3.6	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-11.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480418
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 14:30 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52911 SDG#: PH204-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	11	U	11	4.4	2
12952	EFH (C15-C20)	n.a.	7.9	J	11	4.4	2
12952	EFH (C21-C30)	n.a.	49		11	4.4	2
12952	EFH (C30-C40)	n.a.	110		22	8.8	2
12952	EFH (C8-C11)	n.a.	11	U	11	4.4	2
13197	EFH C12-C14 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	4.6	J	5.5	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	28		5.5	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	58		11	4.4	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	11,300		43.8	7.89	1
06944	Antimony	7440-36-0	4.38	U	4.38	0.810	1
06935	Arsenic	7440-38-2	3.13	J	4.38	0.766	1
06946	Barium	7440-39-3	66.4		1.09	0.0361	1
06947	Beryllium	7440-41-7	0.478	J	1.09	0.0733	1
07914	Boron	7440-42-8	3.29	J	10.9	0.919	1
06949	Cadmium	7440-43-9	1.09	U	1.09	0.0832	1
01650	Calcium	7440-70-2	2,730		21.9	3.65	1
06951	Chromium	7440-47-3	11.8		3.28	0.175	1
06952	Cobalt	7440-48-4	3.53		1.09	0.108	1
06953	Copper	7440-50-8	5.59		2.19	0.317	1
01654	Iron	7439-89-6	16,500		43.8	3.96	1
06955	Lead	7439-92-1	3.93		3.28	0.547	1
01656	Lithium	7439-93-2	19.7		4.4	0.37	1
01657	Magnesium	7439-95-4	3,530		10.9	1.83	1
06958	Manganese	7439-96-5	215		1.09	0.0908	1
06960	Molybdenum	7439-98-7	2.19	U	2.19	0.186	1
06961	Nickel	7440-02-0	6.68		2.19	0.142	1
10145	Phosphorus	7723-14-0	310		10.9	3.16	1
01662	Potassium	7440-09-7	2,490		109	9.12	1
01667	Sodium	7440-23-5	169		109	18.3	1
06969	Tin	7440-31-5	2.76	J	10.9	0.241	1
06970	Titanium	7440-32-6	889		1.09	0.186	1
06971	Vanadium	7440-62-2	25.4		1.09	0.142	1
06972	Zinc	7440-66-6	51.6		4.38	0.219	1
10146	Zirconium	7440-67-7	2.54	J	5.47	0.919	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.119	J	0.438	0.109	2
06142	Silver	7440-22-4	0.0379	J	0.219	0.0284	2
06144	Strontium	7440-24-6	16.5		0.438	0.0744	2
06145	Thallium	7440-28-0	0.205	J	0.219	0.0328	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0224		0.0177	0.0106	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-11.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480418
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 14:30 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52911 SDG#: PH204-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 21.1 C.	n.a.	8.61	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	8.6	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-11.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480418
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 14:30 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52911 SDG#: PH204-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0435 JBQ	1.06	0.0420	1
11031	12378-PeCDD	40321-76-4	5.30 U	5.30	0.0412	1
11031	123478-HxCDD	39227-28-6	0.0624 JBQ	5.30	0.0456	1
11031	123678-HxCDD	57653-85-7	0.417 JBQ	5.30	0.0456	1
11031	123789-HxCDD	19408-74-3	0.422 JBQ	5.30	0.0427	1
11031	1234678-HpCDD	35822-46-9	9.56 B	5.30	0.0396	1
11031	OCDD	3268-87-9	117 B	10.6	0.0354	1
11031	2378-TCDF	51207-31-9	0.0457 JQ	1.06	0.0350	1
11031	12378-PeCDF	57117-41-6	0.169 JB	5.30	0.0188	1
11031	23478-PeCDF	57117-31-4	0.103 JB	5.30	0.0187	1
11031	123478-HxCDF	70648-26-9	0.116 JBQ	5.30	0.0457	1
11031	123678-HxCDF	57117-44-9	0.162 JBQ	5.30	0.0392	1
11031	123789-HxCDF	72918-21-9	0.146 JB	5.30	0.0425	1
11031	234678-HxCDF	60851-34-5	0.116 JBQ	5.30	0.0419	1
11031	1234678-HpCDF	67562-39-4	1.39 JB	5.30	0.0183	1
11031	1234789-HpCDF	55673-89-7	0.147 JBQ	5.30	0.0327	1
11031	OCDF	39001-02-0	3.83 JB	10.6	0.0391	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.196			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	83	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	89	32 - 141
13C12-123678-HxCDD	89	28 - 130
13C12-123789-HxCDD	92	28 - 130
13C12-1234678-HpCDD	93	23 - 140
13C12-OCDD	101	17 - 157
13C12-2378-TCDF	78	24 - 169
13C12-12378-PeCDF	91	24 - 185
13C12-23478-PeCDF	83	21 - 178
13C12-123478-HxCDF	85	26 - 152
13C12-123678-HxCDF	95	26 - 123
13C12-234678-HxCDF	88	28 - 136
13C12-123789-HxCDF	92	29 - 147
13C12-1234678-HpCDF	119	28 - 143
13C12-1234789-HpCDF	76	26 - 138
13C12-OCDF	74	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-11.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480418
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 14:30 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52911 SDG#: PH204-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-11.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480418
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 14:30 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52911 SDG#: PH204-08

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM 8270D	SW-846 8270D SIM	1	14151SLE026	06/04/2014 11:37	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14151SLE026	06/02/2014 03:30	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14154A16A	06/04/2014 03:13	Laura M Krieger	21.82
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414934641	05/29/2014 15:08	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414934641	05/29/2014 15:08	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141610021A	06/11/2014 22:12	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	2	141610021A	06/11/2014 05:20	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540006A	06/05/2014 14:20	Heather E Williams	2
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540007A	06/06/2014 01:49	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540007A	06/03/2014 16:35	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540006A	06/03/2014 16:35	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14155002	06/06/2014 05:17	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14155002	06/04/2014 11:45	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141540637001	06/04/2014 23:06	John W Yanzuk II	1
06944	Antimony	SW-846 6010C	1	141540637001	06/04/2014 23:06	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	141540637001	06/04/2014 23:06	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	141540637001	06/04/2014 23:06	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	141540637001	06/04/2014 23:06	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	141540637001	06/04/2014 23:06	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	141540637001	06/04/2014 23:06	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	141540637001	06/05/2014 12:10	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141540637001	06/04/2014 23:06	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	141540637001	06/04/2014 23:06	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	141540637001	06/04/2014 23:06	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	141540637001	06/04/2014 23:06	John W Yanzuk II	1
06955	Lead	SW-846 6010C	1	141540637001	06/04/2014 23:06	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	141540637001	06/04/2014 23:06	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	141540637001	06/04/2014 23:06	John W Yanzuk II	1
06958	Manganese	SW-846 6010C	1	141540637001	06/04/2014 23:06	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	141540637001	06/04/2014 23:06	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	141540637001	06/04/2014 23:06	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010C	1	141540637001	06/04/2014 23:06	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	141540637001	06/04/2014 23:06	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	141540637001	06/04/2014 23:06	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	141540637001	06/04/2014 23:06	John W Yanzuk II	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-SA5B-TR-11.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480418
LL Group # 1477802
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 14:30 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:09

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52911 SDG#: PH204-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010C	1	141540637001	06/04/2014 23:06	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	141540637001	06/04/2014 23:06	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	141540637001	06/04/2014 23:06	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	141540637001	06/04/2014 23:06	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	141540637001B	06/05/2014 06:46	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141540637001A	06/05/2014 06:46	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141540637001A	06/05/2014 06:46	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141540637001A	06/05/2014 06:46	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638001	06/09/2014 09:25	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141540637001	06/04/2014 08:27	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638001	06/05/2014 10:28	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14149039401A	05/29/2014 20:15	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14154162401B	06/03/2014 19:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477802
Reported: 06/12/14 at 02:09 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14151SLE026	Sample number(s): 7480411-7480413,7480415-7480418									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	104		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	98		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	107		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	103		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	88		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	104		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	79*		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	97		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	81		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	101		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	104		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	93		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	103		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	90		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	86		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	101		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	101		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	88		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	98		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	94		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	100		78-121		
Morpholine	20	U	20.	20	ug/kg					
Naphthalene	1.7	U	1.7	0.67	ug/kg	95		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	91		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	100		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	101		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	96		80-119		
Batch number: 14150B94A	Sample number(s): 7480414									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	97	92	80-133	6	30
Batch number: 14154A16A	Sample number(s): 7480412-7480413,7480416-7480418									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	77		67-120		
Batch number: 141530004A	Sample number(s): 7480411-7480413									
Aldrin	0.83	U	0.83	0.17	ug/kg	86		60-118		
Alpha BHC	0.83	U	0.83	0.17	ug/kg	88		55-135		
Beta BHC	1.9	U	1.9	0.96	ug/kg	89		67-129		
Gamma BHC - Lindane	0.83	U	0.83	0.17	ug/kg	91		56-138		
Chlordane	17	U	17.	4.0	ug/kg					
p,p-DDD	1.7	U	1.7	0.33	ug/kg	100		69-141		
p,p-DDE	1.7	U	1.7	0.33	ug/kg	100		69-130		
p,p-DDT	1.7	U	1.7	0.35	ug/kg	100		64-139		

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477802
Reported: 06/12/14 at 02:09 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Delta BHC	0.83	U	0.83	0.45	ug/kg	89		59-137		
Dieldrin	1.7	U	1.7	0.33	ug/kg	94		68-134		
Endosulfan I	0.83	U	0.83	0.22	ug/kg	88		56-128		
Endosulfan II	1.7	U	1.7	0.33	ug/kg	92		68-128		
Endosulfan Sulfate	1.7	U	1.7	0.33	ug/kg	93		71-132		
Endrin	1.7	U	1.7	0.33	ug/kg	92		70-132		
Endrin Aldehyde	1.7	U	1.7	0.33	ug/kg	85		61-125		
Endrin Ketone	1.8	U	1.8	0.60	ug/kg	89		69-126		
Heptachlor	0.83	U	0.83	0.17	ug/kg	89		57-130		
Heptachlor Epoxide	0.83	U	0.83	0.17	ug/kg	94		69-125		
Methoxychlor	6.7	U	6.7	1.7	ug/kg	100		67-136		
Mirex	1.7	U	1.7	0.35	ug/kg					
Toxaphene	33	U	33.	14	ug/kg					
Batch number: 141610021A	Sample number(s): 7480411-7480413,7480415-7480418									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	87	89	36-106	3	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	106		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	110		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141540006A	Sample number(s): 7480411-7480413,7480415-7480418									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	89		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	91		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	93		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	87		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	80		60-115		
Batch number: 141540007A	Sample number(s): 7480411-7480413,7480415-7480418									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	66*		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	68*		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	68*		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	54		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	54*		60-115		
Batch number: 141540637001	Sample number(s): 7480411-7480413,7480415-7480418									
Aluminum	40.0	U	40.0	7.21	mg/kg	105		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	106		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	105		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	105		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	106		80-120		
Boron	10.0	U	10.0	0.840	mg/kg	99		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	106		80-120		
Calcium	9.64	J	20.0	3.34	mg/kg	104		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	105		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	106		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	107		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	105		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	107		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477802
Reported: 06/12/14 at 02:09 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Lithium	4.0	U	4.0	0.34	mg/kg	104		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	102		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	104		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	109		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	106		80-120		
Potassium	100 U		100.	8.34	mg/kg	103		80-120		
Sodium	100 U		100.	16.7	mg/kg	101		80-120		
Tin	1.45	J	10.0	0.220	mg/kg	103		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	105		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	108		80-120		
Zinc	4.00	U	4.00	0.200	mg/kg	104		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	106		80-120		
Batch number: 141540637001A	Sample number(s): 7480411-7480413,7480415-7480418									
Silver	0.200	U	0.200	0.0260	mg/kg	111		80-120		
Strontium	0.400	U	0.400	0.0680	mg/kg	113		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	112		80-120		
Batch number: 141540637001B	Sample number(s): 7480411-7480413,7480415-7480418									
Selenium	0.400	U	0.400	0.100	mg/kg	107		80-120		
Batch number: 141540638001	Sample number(s): 7480411-7480413,7480415-7480418									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	99		85-120		
Batch number: 14149039401A	Sample number(s): 7480411-7480413,7480415-7480418									
15a pH by 9045D						100		95-105		
Batch number: 14154162401B	Sample number(s): 7480411-7480413,7480415-7480418									
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14155002	Sample number(s): 7480411-7480413,7480415-7480418									
2378-TCDD	0.0682	J	1.00	0.0586	ng/kg	94		67-158		
12378-PeCDD	0.125	J	5.00	0.0398	ng/kg	101		70-142		
123478-HxCDD	0.0634	J	5.00	0.0262	ng/kg	97		70-164		
123678-HxCDD	0.0865	J	5.00	0.0274	ng/kg	93		76-134		
123789-HxCDD	0.0648	J	5.00	0.0260	ng/kg	96		64-162		
1234678-HpCDD	0.0654	J	5.00	0.0223	ng/kg	93		70-140		
OCDD	0.366	J	10.0	0.0258	ng/kg	93		78-144		
2378-TCDF	1.00	U	1.00	0.0492	ng/kg	106		75-158		
12378-PeCDF	0.0628	J	5.00	0.0211	ng/kg	97		80-134		
23478-PeCDF	0.151	J	5.00	0.0216	ng/kg	99		68-160		
123478-HxCDF	0.113	J	5.00	0.0259	ng/kg	99		72-134		
123678-HxCDF	0.0390	J	5.00	0.0208	ng/kg	99		84-130		
123789-HxCDF	0.0951	J	5.00	0.0249	ng/kg	100		78-130		
234678-HxCDF	0.0944	J	5.00	0.0232	ng/kg	100		70-156		
1234678-HpCDF	0.0760	J	5.00	0.00697	ng/kg	93		82-122		
1234789-HpCDF	0.129	J	5.00	0.0148	ng/kg	99		78-138		
OCDF	0.233	J	10.0	0.0446	ng/kg	97		63-170		
TEQ WHO 2005 - EDLx0.0	0.0671				ng/kg					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477802
Reported: 06/12/14 at 02:09 PM

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14151SLE026	Sample number(s): 7480411-7480413,7480415-7480418 UNSPK: P479354								
Acenaphthene	97	96	48-127	0	30				
Acenaphthylene	100	100	60-128	0	30				
Anthracene	93	94	52-126	0	30				
Benzo(a)anthracene	101	99	44-143	1	30				
Benzo(a)pyrene	83	82	49-137	1	30				
Benzo(b)fluoranthene	88	90	26-142	1	30				
Benzo(e)pyrene	76	77	63-111	0	30				
Benzo(g,h,i)perylene	77	74	33-141	4	30				
Benzo(k)fluoranthene	84	86	49-144	2	30				
Butylbenzylphthalate	105	104	64-156	1	30				
Di-n-butylphthalate	106	103	52-147	3	30				
Chrysene	91	94	43-141	2	30				
Dibenz(a,h)anthracene	85	85	25-145	1	30				
Diethylphthalate	89	91	66-140	2	30				
Dimethylphthalate	85	84	70-123	1	30				
Bis(2-Ethylhexyl)phthalate	119	112	48-164	6	30				
Fluoranthene	94	117	38-153	20	30				
Fluorene	81	80	57-130	2	30				
Indeno(1,2,3-cd)pyrene	81	79	26-139	2	30				
1-Methylnaphthalene	90	91	59-139	1	30				
2-Methylnaphthalene	95	95	46-147	1	30				
Naphthalene	89	89	52-136	0	30				
N-Nitrosodimethylamine	84	84	39-134	0	30				
Di-n-octylphthalate	106	105	52-162	1	30				
Phenanthrene	104	125	50-137	17	30				
Pyrene	86	97	26-143	12	30				
Batch number: 14154A16A	Sample number(s): 7480412-7480413,7480416-7480418 UNSPK: P483434								
11a TPH by EPA 8015B GRO	72	77	69-123	6	30				
Batch number: 141530004A	Sample number(s): 7480411-7480413 UNSPK: P483434								
Aldrin	94	85	16-126	10	50				
Alpha BHC	93	86	14-140	8	50				
Beta BHC	95	86	42-133	9	50				
Gamma BHC - Lindane	96	88	30-137	9	50				
p,p-DDD	109	99	43-149	10	50				
p,p-DDE	112	103	35-152	9	50				
p,p-DDT	107	98	12-193	9	50				
Delta BHC	98	90	13-153	9	50				
Dieldrin	100	88	41-153	12	50				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477802
Reported: 06/12/14 at 02:09 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Endosulfan I	91	83	26-146	9	50				
Endosulfan II	96	88	34-141	9	50				
Endosulfan Sulfate	96	89	10-181	7	50				
Endrin	98	90	30-152	9	50				
Endrin Aldehyde	88	82	23-138	6	50				
Endrin Ketone	92	85	30-148	8	50				
Heptachlor	95	87	16-152	9	50				
Heptachlor Epoxide	99	90	33-144	10	50				
Methoxychlor	106	97	41-161	8	50				
Batch number: 141610021A	Sample number(s): 7480411-7480413,7480415-7480418 UNSPK: P492863								
PCB-1016	108	101	41-135	6	50				
PCB-1260	114	110	40-134	4	50				
Batch number: 141540006A	Sample number(s): 7480411-7480413,7480415-7480418 UNSPK: P479354								
EFH (C12-C14)	88	89	49-123	1	20				
EFH (C15-C20)	106	107	49-123	2	20				
EFH (C21-C30)	77	81	49-123	2	20				
EFH (C30-C40)	73	79	49-123	3	20				
EFH (C8-C11)	85	83	49-123	2	20				
Batch number: 141540007A	Sample number(s): 7480411-7480413,7480415-7480418 UNSPK: P479354								
EFH C12-C14 w/ SiGel	61	70	49-123	13	20				
EFH C15-C20 w/ SiGel	63	71	49-123	13	20				
EFH C21-C30 w/ SiGel	68	77	49-123	12	20				
EFH C30-C40 w/ SiGel	65	74	49-123	12	20				
EFH C8-C11 w/ SiGel	50	58	49-123	16	20				
Batch number: 141540637001	Sample number(s): 7480411-7480413,7480415-7480418 UNSPK: P483434 BKG: P483434								
Aluminum	618 (2)	1777 (2)	75-125	20	20	9,070	8,860	2	20
Antimony	71*	67*	75-125	5	20	3.96 U	3.88 U	0 (1)	20
Arsenic	97	103	75-125	6	20	3.02 J	6.16	68* (1)	20
Barium	98	104	75-125	6	20	57.9	59.0	2	20
Beryllium	101	106	75-125	6	20	0.428 J	0.442 J	3 (1)	20
Boron	95	96	75-125	4	20	1.67 J	1.97 J	16 (1)	20
Cadmium	99	98	75-125	1	20	0.990 U	0.971 U	0 (1)	20
Calcium	33 (2)	209 (2)	75-125	28*	20	2,040	2,050	1	20
Chromium	92	109	75-125	13	20	8.95	9.36	5 (1)	20
Cobalt	97	97	75-125	2	20	3.29	3.36	2 (1)	20
Copper	100	115	75-125	14	20	4.22	4.58	8 (1)	20
Iron	-955 (2)	2923 (2)	75-125	23*	20	15,500	16,300	6	20
Lead	92	106	75-125	12	20	4.72	5.01	6 (1)	20
Lithium	103	106	75-125	4	20	21.4	22.7	6	20
Magnesium	44 (2)	433 (2)	75-125	21*	20	3,190	3,350	5	20
Manganese	64 (2)	106 (2)	75-125	8	20	237	241	2	20
Molybdenum	97	97	75-125	2	20	0.294 J	0.168 J	55* (1)	20
Nickel	98	99	75-125	3	20	5.52	5.42	2 (1)	20
Phosphorus	75	166*	75-125	21*	20	318	338	6	20
Potassium	116	145*	75-125	8	20	2,710	2,720	1	20
Sodium	99	100	75-125	3	20	68.0 J	68.2 J	0 (1)	20

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477802
Reported: 06/12/14 at 02:09 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc		DUP Conc		DUP RPD	Dup RPD Max
Tin	92	91	75-125	1	20	2.50	J	2.55	J	2 (1)	20
Titanium	219 (2)	305 (2)	75-125	8	20	838		884		5	20
Vanadium	100	113	75-125	10	20	19.9		21.1		6	20
Zinc	96	117	75-125	11	20	54.1		56.6		4	20
Zirconium	102	102	75-125	2	20	1.85	J	2.67	J	36* (1)	20
Batch number: 141540637001A	Sample number(s): 7480411-7480413,7480415-7480418 UNSPK: P483434 BKG: P483434										
Silver	101	102	75-125	2	20	0.198	U	0.194	U	0 (1)	20
Strontium	97	107	75-125	5	20	9.02		9.92		10	20
Thallium	103	99	75-125	1	20	0.216		0.234		8 (1)	20
Batch number: 141540637001B	Sample number(s): 7480411-7480413,7480415-7480418 UNSPK: P483434 BKG: P483434										
Selenium	106	109	75-125	4	20	0.396	U	0.133	J	200* (1)	20
Batch number: 141540638001	Sample number(s): 7480411-7480413,7480415-7480418 UNSPK: P483434 BKG: P483434										
3a Mercury 7471A	110	111	65-135	2	20	0.0157	U	0.0164	U	0 (1)	20
Batch number: 14149039401A	Sample number(s): 7480411-7480413,7480415-7480418 BKG: 7480411										
15a pH by 9045D						4.52		4.55		1	3
Batch number: 14154162401B	Sample number(s): 7480411-7480413,7480415-7480418 BKG: 7480416										
14a Moisture Content by 160.3						7.7		7.2		6	20
Batch number: 14155002	Sample number(s): 7480411-7480413,7480415-7480418 UNSPK: P482508										
2378-TCDD	94	92	40-135	0	20						
12378-PeCDD	101	101	40-135	1	20						
123478-HxCDD	98	100	40-135	4	20						
123678-HxCDD	98	97	40-135	0	20						
123789-HxCDD	100	98	40-135	1	20						
1234678-HpCDD	99	95	40-135	3	20						
OCDD	108	96	40-135	10	20						
2378-TCDF	104	103	40-135	0	20						
12378-PeCDF	104	101	40-135	2	20						
23478-PeCDF	100	101	40-135	2	20						
123478-HxCDF	101	103	40-135	3	20						
123678-HxCDF	104	104	40-135	2	20						
123789-HxCDF	101	104	40-135	4	20						
234678-HxCDF	101	101	40-135	1	20						
1234678-HpCDF	100	97	40-135	1	20						
1234789-HpCDF	102	100	40-135	1	20						
OCDF	99	98	40-135	0	20						

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14151SLE026

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477802
Reported: 06/12/14 at 02:09 PM

Surrogate Quality Control

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7480411	107	75	87
7480412	99	103	83
7480413	102	116	92
7480415	103	116	87
7480416	99	110	88
7480417	100	108	87
7480418	103	114	88
Blank	99	106	89
LCS	103	119*	89
MS	96	106	88
MSD	99	107	87
Limits:	59-115	61-118	70-127

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14150B94A

	Trifluorotoluene-F
7480414	82
Blank	81
LCS	91
LCSD	85
Limits:	63-135

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 14154A16A

	Trifluorotoluene-F
7480412	94
7480413	90
7480416	86
7480417	100
7480418	92
Blank	90
LCS	96
MS	83
MSD	87
Limits:	50-142

Analysis Name: 20a Pesticides by EPA 8081B
Batch number: 141530004A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7480411	81	80
7480412	81	86
7480413	90	89
Blank	90	100
LCS	92	105
MS	94	102
MSD	85	92

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477802
Reported: 06/12/14 at 02:09 PM

Surrogate Quality Control

Limits: 50-130 20-120

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141610021A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7480411	101	102
7480412	115	105
7480413	118	110
7480415	115	104
7480416	115	109
7480417	114	109
7480418	112	111
Blank	111	109
LCS	113	107
LCSD	118	111
MS	114	109
MSD	107	104
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141540006A

	Chlorobenzene	Orthoterphenyl
7480411	116	80
7480412	85	85
7480413	76	92
7480415	70	85
7480416	82	82
7480417	76	92
7480418	79	76
Blank	74	88
LCS	76	91
MS	78	87
MSD	92	87
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141540007A

	Chlorobenzene	Orthoterphenyl
7480411	64	80
7480412	60	70
7480413	57	59*
7480415	65	69
7480416	60	60*
7480417	64	76
7480418	59	68
Blank	50	54*
LCS	62	67
MS	58	61*
MSD	66	69
Limits:	37-125	66-123

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477802
Reported: 06/12/14 at 02:09 PM

Surrogate Quality Control

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 14155002

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7480411	81	79	86	85	85	89
7480412	71	77	82	85	82	86
7480413	79	78	86	86	91	88
7480415	80	80	85	88	91	92
7480416	75	80	81	83	85	87
7480417	83	85	90	92	95	97
7480418	83	85	89	89	92	93
Blank	71	83	90	91	90	98
MS	79	86	88	88	86	87
MSD	84	82	89	90	93	98
OPR	65	79	83	84	83	88
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7480411	91	77	84	78	81	86
7480412	95	69	82	76	75	87
7480413	95	74	86	78	79	88
7480415	100	80	83	84	86	89
7480416	91	70	84	76	73	85
7480417	108	78	91	85	84	94
7480418	101	78	91	83	85	95
Blank	103	60	83	72	71	87
MS	93	79	86	92	86	88
MSD	101	83	89	88	90	93
OPR	88	62	79	72	67	81
Limits:	17-157	24-169	24-185	21-178	26-152	26-123

	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF
7480411	82	84	104	73	70
7480412	76	75	109	65	64
7480413	81	86	112	69	66
7480415	87	92	100	82	83
7480416	75	71	115	60	56
7480417	86	90	121	76	76
7480418	88	92	119	76	74
Blank	78	76	126	67	65
MS	90	92	100	89	88
MSD	95	99	113	94	91
OPR	71	61	106	60	56
Limits:	28-136	29-147	28-143	26-138	17-157

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/28/2014
CarrierName: FedEx
AirbillNo: 770118975080

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

A-13013 G-1477802 S-7480411-18

COC No: 20140528-07
Cooler #: 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
SL-699-SA5B-TR-0.5	5/28/14 10:00	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X			X				X															
SL-699-SA5B-TR-3.0	5/28/14 10:30	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X			X				X															
SL-699-SA5B-TR-3.0	5/28/14 10:30	SO	None	2 - Encore	10 day																			X																
SL-693-SA5B-TR-3.0	5/28/14 08:35	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X			X				X															
SL-693-SA5B-TR-3.0	5/28/14 08:35	SO	None	2 - Encore	10 day																			X																
TB3-052814	5/28/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																			X																
SL-529-SA5B-TR-0.5	5/28/14 13:05	SO	None	2 - 16 oz glass	10 day	X	X				X	X		X	X			X								X														
SL-529-SA5B-TR-2.0	5/28/14 14:05	SO	None	2 - Encore	10 day																			X																
SL-529-SA5B-TR-2.0	5/28/14 14:05	SO	None	2 - 16 oz glass	10 day	X	X				X	X		X	X			X								X														
SL-529-SA5B-TR-3.0	5/28/14 14:15	SO	None	2 - Encore	10 day																			X																
SL-529-SA5B-TR-3.0	5/28/14 14:15	SO	None	2 - 16 oz glass	10 day	X	X				X	X		X	X			X								X														
SL-529-SA5B-TR-11.0	5/28/14 14:30	SO	None	2 - Encore	10 day																			X																
SL-529-SA5B-TR-11.0	5/28/14 14:30	SO	None	2 - 16 oz glass	10 day	X	X				X	X		X	X			X								X														

Special Instructions: For all EFH, silica gel clean up required on half the extract. Analyze both extracts for EFH. Morpholine only on TIC.

Sampler: Andrew Payne

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
	05/28/14	1600									
										5/29/14	0935

TRENCHING

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Sample Administration Receipt Documentation Log

Doc Log ID: 15826

Group Number(s): 1477802

Client: CDM SMITH

SSFL PHASE 3

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/29/2014 9:35
Number of Packages:	3	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	Yes		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Corey Eshleman (3647) at 10:53 on 05/29/2014

Samples Chilled Details: SSFL PHASE 3

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT121	0.9	DT	Wet	Y	Bagged	N	N
2	DT121	0.7	DT	Wet	Y	Bagged	N	N
3	DT121	1.2	DT	Wet	Y	Bagged	N	N

Extra Sample Details: SSFL PHASE 3

Sample ID on Label	Number of Extra Containers	Date on Label	Comments
SL-699-SA5B-TR-8.0	4	5/28/2014 11:00	2 ENCORE/ 2 (16oz) GLASS

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

eurofins | Lancaster Laboratories Environmental

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 12, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/29/2014
Group Number: 1477916
SDG: PH204
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SL-699-SA5B-TR-8.0 Soil	7480929

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: SL-699-SA5B-TR-8.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480929
LL Group # 1477916
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 11:00 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:10

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

6995B SDG#: PH204-09*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.71	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.71	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.71	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.71	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.71	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.71	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.4	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.4	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.71	1
12969	Diethylphthalate	84-66-2	19	U	19	6.4	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.4	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.4	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.71	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.71	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.71	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.71	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.71	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.71	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.71	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.4	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.71	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.71	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1	U	1	0.2	23.06
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.89	U	0.89	0.18	1
10590	Alpha BHC	319-84-6	0.89	U	0.89	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.89	U	0.89	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.3	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.35	1
10590	p,p-DDE	72-55-9	1.8	U	1.8	0.35	1
10590	p,p-DDT	50-29-3	1.8	U	1.8	0.37	1
10590	Delta BHC	319-86-8	0.89	U	0.89	0.48	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.35	1
10590	Endosulfan I	959-98-8	0.89	U	0.89	0.24	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.35	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.35	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-699-SA5B-TR-8.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480929
LL Group # 1477916
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 11:00 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:10

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

6995B SDG#: PH204-09*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Endrin	72-20-8	1.8	U	1.8	0.35	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.35	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.64	1
10590	Heptachlor	76-44-8	0.89	U	0.89	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.89	U	0.89	0.18	1
10590	Methoxychlor	72-43-5	7.2	U	7.2	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.37	1
10590	Toxaphene	8001-35-2	35	U	35	15	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.4	U	5.4	2.1	1
12952	EFH (C15-C20)	n.a.	5.4	U	5.4	2.1	1
12952	EFH (C21-C30)	n.a.	5.4	U	5.4	2.1	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.3	1
12952	EFH (C8-C11)	n.a.	5.4	U	5.4	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.4	U	5.4	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.4	U	5.4	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.4	U	5.4	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.3	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.4	U	5.4	2.1	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	18,400		42.0	7.57	1
06944	Antimony	7440-36-0	4.20	U	4.20	0.777	1
06935	Arsenic	7440-38-2	6.38		4.20	0.735	1
06946	Barium	7440-39-3	85.4		1.05	0.0346	1
06947	Beryllium	7440-41-7	0.826	J	1.05	0.0703	1
07914	Boron	7440-42-8	1.23	J	10.5	0.882	1
06949	Cadmium	7440-43-9	1.05	U	1.05	0.0798	1
01650	Calcium	7440-70-2	2,700		21.0	3.51	1
06951	Chromium	7440-47-3	25.6		3.15	0.168	1
06952	Cobalt	7440-48-4	5.95		1.05	0.104	1
06953	Copper	7440-50-8	12.7		2.10	0.304	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-699-SA5B-TR-8.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480929
LL Group # 1477916
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 11:00 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:10

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

6995B SDG#: PH204-09*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01654	Iron	7439-89-6	25,400		42.0	3.80	1
06955	Lead	7439-92-1	6.90		3.15	0.525	1
01656	Lithium	7439-93-2	31.8		4.2	0.36	1
01657	Magnesium	7439-95-4	5,660		10.5	1.75	1
06958	Manganese	7439-96-5	233		1.05	0.0871	1
06960	Molybdenum	7439-98-7	2.10	U	2.10	0.178	1
06961	Nickel	7440-02-0	12.8		2.10	0.136	1
10145	Phosphorus	7723-14-0	216		10.5	3.03	1
01662	Potassium	7440-09-7	2,240		105	8.75	1
01667	Sodium	7440-23-5	142		105	17.5	1
06969	Tin	7440-31-5	3.08	J	10.5	0.231	1
06970	Titanium	7440-32-6	1,220		1.05	0.178	1
06971	Vanadium	7440-62-2	45.5		1.05	0.136	1
06972	Zinc	7440-66-6	55.3		4.20	0.210	1
10146	Zirconium	7440-67-7	3.87	J	5.25	0.882	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.420	U	0.420	0.105	2
06142	Silver	7440-22-4	0.0668	J	0.210	0.0273	2
06144	Strontium	7440-24-6	23.1		0.420	0.0714	2
06145	Thallium	7440-28-0	0.290		0.210	0.0315	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0171	U	0.0171	0.0103	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.46		0.0100	0.0100	1
	The pH was measured in water at 21.2 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	6.6		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-699-SA5B-TR-8.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480929
LL Group # 1477916
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 11:00 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:10

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

6995B SDG#: PH204-09*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0563 JBQ	1.07	0.0398	1
11031	12378-PeCDD	40321-76-4	0.0776 JBQ	5.33	0.0349	1
11031	123478-HxCDD	39227-28-6	0.0350 JBQ	5.33	0.0221	1
11031	123678-HxCDD	57653-85-7	0.0319 JBQ	5.33	0.0226	1
11031	123789-HxCDD	19408-74-3	0.0661 JBQ	5.33	0.0231	1
11031	1234678-HpCDD	35822-46-9	0.128 JBQ	5.33	0.0207	1
11031	OCDD	3268-87-9	0.667 JBQ	10.7	0.0283	1
11031	2378-TCDF	51207-31-9	1.07 U	1.07	0.0347	1
11031	12378-PeCDF	57117-41-6	0.0726 JBQ	5.33	0.0162	1
11031	23478-PeCDF	57117-31-4	0.0439 JBQ	5.33	0.0178	1
11031	123478-HxCDF	70648-26-9	0.0385 JBQ	5.33	0.0205	1
11031	123678-HxCDF	57117-44-9	0.0439 JBQ	5.33	0.0175	1
11031	123789-HxCDF	72918-21-9	0.0885 JBQ	5.33	0.0262	1
11031	234678-HxCDF	60851-34-5	0.0557 JBQ	5.33	0.0194	1
11031	1234678-HpCDF	67562-39-4	0.0529 JBQ	5.33	0.00633	1
11031	1234789-HpCDF	55673-89-7	0.0406 JBQ	5.33	0.0170	1
11031	OCDF	39001-02-0	0.261 JBQ	10.7	0.0548	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	U			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	67	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	81	23 - 140
13C12-OCDD	84	17 - 157
13C12-2378-TCDF	61	24 - 169
13C12-12378-PeCDF	80	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	81	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	59	29 - 147
13C12-1234678-HpCDF	115	28 - 143
13C12-1234789-HpCDF	49	26 - 138
13C12-OCDF	42	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: SL-699-SA5B-TR-8.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480929
LL Group # 1477916
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 11:00 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:10

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

6995B SDG#: PH204-09*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: SL-699-SA5B-TR-8.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480929
LL Group # 1477916
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 11:00 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:10

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

6995B SDG#: PH204-09*

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14151SLE026	06/04/2014 12:41	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14151SLE026	06/02/2014 03:30	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14154A16A	06/04/2014 03:51	Laura M Krieger	23.06
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201414934653	05/29/2014 17:15	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201414934653	05/29/2014 17:15	Lois E Hiltz	n.a.
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141530004A	06/09/2014 09:35	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141610021A	06/11/2014 22:31	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	2	141610021A	06/11/2014 05:20	Roman Kuropatkin	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141530004A	06/02/2014 15:00	Kelli M Barto	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540006A	06/05/2014 01:22	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540007A	06/05/2014 20:04	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540007A	06/03/2014 16:35	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540006A	06/03/2014 16:35	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14155002	06/06/2014 10:13	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14155002	06/04/2014 11:45	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1
06944	Antimony	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1
06951	Chromium	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1
06955	Lead	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1
06958	Manganese	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-699-SA5B-TR-8.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7480929
LL Group # 1477916
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/28/2014 11:00 by AP

Submitted: 05/29/2014 09:35
Reported: 06/12/2014 14:10

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

6995B SDG#: PH204-09*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10145	Phosphorus	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1
06970	Titanium	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	141540637001	06/04/2014 23:10	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	141540637001B	06/05/2014 06:49	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141540637001A	06/05/2014 06:49	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141540637001A	06/05/2014 06:49	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141540637001A	06/05/2014 06:49	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638001	06/09/2014 09:27	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141540637001	06/04/2014 08:27	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638001	06/05/2014 10:28	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14149039401A	05/29/2014 20:15	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14154162401B	06/03/2014 19:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477916
Reported: 06/12/14 at 02:10 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14151SLE026	Sample number(s): 7480929									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	104		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	98		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	107		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	103		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	88		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	104		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	79*		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	97		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	81		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	101		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	104		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	93		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	103		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	90		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	86		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	101		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	101		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	88		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	98		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	94		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	100		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	95		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	91		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	100		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	101		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	96		80-119		
Batch number: 14154A16A	Sample number(s): 7480929									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	77		67-120		
Batch number: 141530004A	Sample number(s): 7480929									
Aldrin	0.83	U	0.83	0.17	ug/kg	86		60-118		
Alpha BHC	0.83	U	0.83	0.17	ug/kg	88		55-135		
Beta BHC	1.9	U	1.9	0.96	ug/kg	89		67-129		
Gamma BHC - Lindane	0.83	U	0.83	0.17	ug/kg	91		56-138		
Chlordane	17	U	17.	4.0	ug/kg					
p,p-DDD	1.7	U	1.7	0.33	ug/kg	100		69-141		
p,p-DDE	1.7	U	1.7	0.33	ug/kg	100		69-130		
p,p-DDT	1.7	U	1.7	0.35	ug/kg	100		64-139		
Delta BHC	0.83	U	0.83	0.45	ug/kg	89		59-137		
Dieldrin	1.7	U	1.7	0.33	ug/kg	94		68-134		
Endosulfan I	0.83	U	0.83	0.22	ug/kg	88		56-128		
Endosulfan II	1.7	U	1.7	0.33	ug/kg	92		68-128		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477916
Reported: 06/12/14 at 02:10 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Endosulfan Sulfate	1.7	U	1.7	0.33	ug/kg	93		71-132		
Endrin	1.7	U	1.7	0.33	ug/kg	92		70-132		
Endrin Aldehyde	1.7	U	1.7	0.33	ug/kg	85		61-125		
Endrin Ketone	1.8	U	1.8	0.60	ug/kg	89		69-126		
Heptachlor	0.83	U	0.83	0.17	ug/kg	89		57-130		
Heptachlor Epoxide	0.83	U	0.83	0.17	ug/kg	94		69-125		
Methoxychlor	6.7	U	6.7	1.7	ug/kg	100		67-136		
Mirex	1.7	U	1.7	0.35	ug/kg					
Toxaphene	33	U	33.	14	ug/kg					
Batch number: 141610021A	Sample number(s): 7480929									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	87	89	36-106	3	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	106		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	110		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141540006A	Sample number(s): 7480929									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	89		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	91		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	93		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	87		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	80		60-115		
Batch number: 141540007A	Sample number(s): 7480929									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	66*		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	68*		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	68*		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	54		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	54*		60-115		
Batch number: 141540637001	Sample number(s): 7480929									
Aluminum	40.0	U	40.0	7.21	mg/kg	105		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	106		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	105		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	105		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	106		80-120		
Boron	10.0	U	10.0	0.840	mg/kg	99		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	106		80-120		
Calcium	9.64	J	20.0	3.34	mg/kg	104		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	105		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	106		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	107		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	105		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	107		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	104		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	102		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	104		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477916
Reported: 06/12/14 at 02:10 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Nickel	2.00	U	2.00	0.130	mg/kg	109		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	106		80-120		
Potassium	100 U		100.	8.34	mg/kg	103		80-120		
Sodium	100 U		100.	16.7	mg/kg	101		80-120		
Tin	1.45	J	10.0	0.220	mg/kg	103		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	105		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	108		80-120		
Zinc	4.00	U	4.00	0.200	mg/kg	104		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	106		80-120		
Batch number: 141540637001A	Sample number(s): 7480929									
Silver	0.200	U	0.200	0.0260	mg/kg	111		80-120		
Strontium	0.400	U	0.400	0.0680	mg/kg	113		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	112		80-120		
Batch number: 141540637001B	Sample number(s): 7480929									
Selenium	0.400	U	0.400	0.100	mg/kg	107		80-120		
Batch number: 141540638001	Sample number(s): 7480929									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	99		85-120		
Batch number: 14149039401A	Sample number(s): 7480929									
15a pH by 9045D						100		95-105		
Batch number: 14154162401B	Sample number(s): 7480929									
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14155002	Sample number(s): 7480929									
2378-TCDD	0.0682	J	1.00	0.0586	ng/kg	94		67-158		
12378-PeCDD	0.125	J	5.00	0.0398	ng/kg	101		70-142		
123478-HxCDD	0.0634	J	5.00	0.0262	ng/kg	97		70-164		
123678-HxCDD	0.0865	J	5.00	0.0274	ng/kg	93		76-134		
123789-HxCDD	0.0648	J	5.00	0.0260	ng/kg	96		64-162		
1234678-HpCDD	0.0654	J	5.00	0.0223	ng/kg	93		70-140		
OCDD	0.366	J	10.0	0.0258	ng/kg	93		78-144		
2378-TCDF	1.00	U	1.00	0.0492	ng/kg	106		75-158		
12378-PeCDF	0.0628	J	5.00	0.0211	ng/kg	97		80-134		
23478-PeCDF	0.151	J	5.00	0.0216	ng/kg	99		68-160		
123478-HxCDF	0.113	J	5.00	0.0259	ng/kg	99		72-134		
123678-HxCDF	0.0390	J	5.00	0.0208	ng/kg	99		84-130		
123789-HxCDF	0.0951	J	5.00	0.0249	ng/kg	100		78-130		
234678-HxCDF	0.0944	J	5.00	0.0232	ng/kg	100		70-156		
1234678-HpCDF	0.0760	J	5.00	0.00697	ng/kg	93		82-122		
1234789-HpCDF	0.129	J	5.00	0.0148	ng/kg	99		78-138		
OCDF	0.233	J	10.0	0.0446	ng/kg	97		63-170		
TEQ WHO 2005 - EDLx0.0	0.0671				ng/kg					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477916
Reported: 06/12/14 at 02:10 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14151SLE026	Sample number(s): 7480929 UNSPK: P479354								
Acenaphthene	97	96	48-127	0	30				
Acenaphthylene	100	100	60-128	0	30				
Anthracene	93	94	52-126	0	30				
Benzo(a)anthracene	101	99	44-143	1	30				
Benzo(a)pyrene	83	82	49-137	1	30				
Benzo(b)fluoranthene	88	90	26-142	1	30				
Benzo(e)pyrene	76	77	63-111	0	30				
Benzo(g,h,i)perylene	77	74	33-141	4	30				
Benzo(k)fluoranthene	84	86	49-144	2	30				
Butylbenzylphthalate	105	104	64-156	1	30				
Di-n-butylphthalate	106	103	52-147	3	30				
Chrysene	91	94	43-141	2	30				
Dibenz(a,h)anthracene	85	85	25-145	1	30				
Diethylphthalate	89	91	66-140	2	30				
Dimethylphthalate	85	84	70-123	1	30				
Bis(2-Ethylhexyl)phthalate	119	112	48-164	6	30				
Fluoranthene	94	117	38-153	20	30				
Fluorene	81	80	57-130	2	30				
Indeno(1,2,3-cd)pyrene	81	79	26-139	2	30				
1-Methylnaphthalene	90	91	59-139	1	30				
2-Methylnaphthalene	95	95	46-147	1	30				
Naphthalene	89	89	52-136	0	30				
N-Nitrosodimethylamine	84	84	39-134	0	30				
Di-n-octylphthalate	106	105	52-162	1	30				
Phenanthrene	104	125	50-137	17	30				
Pyrene	86	97	26-143	12	30				
Batch number: 14154A16A	Sample number(s): 7480929 UNSPK: P483434								
11a TPH by EPA 8015B GRO	72	77	69-123	6	30				
Batch number: 141530004A	Sample number(s): 7480929 UNSPK: P483434								
Aldrin	94	85	16-126	10	50				
Alpha BHC	93	86	14-140	8	50				
Beta BHC	95	86	42-133	9	50				
Gamma BHC - Lindane	96	88	30-137	9	50				
p,p-DDD	109	99	43-149	10	50				
p,p-DDE	112	103	35-152	9	50				
p,p-DDT	107	98	12-193	9	50				
Delta BHC	98	90	13-153	9	50				
Dieldrin	100	88	41-153	12	50				
Endosulfan I	91	83	26-146	9	50				
Endosulfan II	96	88	34-141	9	50				
Endosulfan Sulfate	96	89	10-181	7	50				
Endrin	98	90	30-152	9	50				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477916
Reported: 06/12/14 at 02:10 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Endrin Aldehyde	88	82	23-138	6	50				
Endrin Ketone	92	85	30-148	8	50				
Heptachlor	95	87	16-152	9	50				
Heptachlor Epoxide	99	90	33-144	10	50				
Methoxychlor	106	97	41-161	8	50				
Batch number: 141610021A	Sample number(s): 7480929 UNSPK: P492863								
PCB-1016	108	101	41-135	6	50				
PCB-1260	114	110	40-134	4	50				
Batch number: 141540006A	Sample number(s): 7480929 UNSPK: P479354								
EFH (C12-C14)	88	89	49-123	1	20				
EFH (C15-C20)	106	107	49-123	2	20				
EFH (C21-C30)	77	81	49-123	2	20				
EFH (C30-C40)	73	79	49-123	3	20				
EFH (C8-C11)	85	83	49-123	2	20				
Batch number: 141540007A	Sample number(s): 7480929 UNSPK: P479354								
EFH C12-C14 w/ SiGel	61	70	49-123	13	20				
EFH C15-C20 w/ SiGel	63	71	49-123	13	20				
EFH C21-C30 w/ SiGel	68	77	49-123	12	20				
EFH C30-C40 w/ SiGel	65	74	49-123	12	20				
EFH C8-C11 w/ SiGel	50	58	49-123	16	20				
Batch number: 141540637001	Sample number(s): 7480929 UNSPK: P483434 BKG: P483434								
Aluminum	618 (2)	1777 (2)	75-125	20	20	9,070	8,860	2	20
Antimony	71*	67*	75-125	5	20	3.96 U	3.88 U	0 (1)	20
Arsenic	97	103	75-125	6	20	3.02 J	6.16	68* (1)	20
Barium	98	104	75-125	6	20	57.9	59.0	2	20
Beryllium	101	106	75-125	6	20	0.428 J	0.442 J	3 (1)	20
Boron	95	96	75-125	4	20	1.67 J	1.97 J	16 (1)	20
Cadmium	99	98	75-125	1	20	0.990 U	0.971 U	0 (1)	20
Calcium	33 (2)	209 (2)	75-125	28*	20	2,040	2,050	1	20
Chromium	92	109	75-125	13	20	8.95	9.36	5 (1)	20
Cobalt	97	97	75-125	2	20	3.29	3.36	2 (1)	20
Copper	100	115	75-125	14	20	4.22	4.58	8 (1)	20
Iron	-955 (2)	2923 (2)	75-125	23*	20	15,500	16,300	6	20
Lead	92	106	75-125	12	20	4.72	5.01	6 (1)	20
Lithium	103	106	75-125	4	20	21.4	22.7	6	20
Magnesium	44 (2)	433 (2)	75-125	21*	20	3,190	3,350	5	20
Manganese	64 (2)	106 (2)	75-125	8	20	237	241	2	20
Molybdenum	97	97	75-125	2	20	0.294 J	0.168 J	55* (1)	20
Nickel	98	99	75-125	3	20	5.52	5.42	2 (1)	20
Phosphorus	75	166*	75-125	21*	20	318	338	6	20
Potassium	116	145*	75-125	8	20	2,710	2,720	1	20
Sodium	99	100	75-125	3	20	68.0 J	68.2 J	0 (1)	20
Tin	92	91	75-125	1	20	2.50 J	2.55 J	2 (1)	20
Titanium	219 (2)	305 (2)	75-125	8	20	838	884	5	20
Vanadium	100	113	75-125	10	20	19.9	21.1	6	20
Zinc	96	117	75-125	11	20	54.1	56.6	4	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477916
Reported: 06/12/14 at 02:10 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc		DUP Conc		DUP RPD	Dup RPD Max
Zirconium	102	102	75-125	2	20	1.85	J	2.67	J	36* (1)	20
Batch number: 141540637001A	Sample number(s): 7480929 UNSPK: P483434 BKG: P483434										
Silver	101	102	75-125	2	20	0.198	U	0.194	U	0 (1)	20
Strontium	97	107	75-125	5	20	9.02		9.92		10	20
Thallium	103	99	75-125	1	20	0.216		0.234		8 (1)	20
Batch number: 141540637001B	Sample number(s): 7480929 UNSPK: P483434 BKG: P483434										
Selenium	106	109	75-125	4	20	0.396	U	0.133	J	200* (1)	20
Batch number: 141540638001	Sample number(s): 7480929 UNSPK: P483434 BKG: P483434										
3a Mercury 7471A	110	111	65-135	2	20	0.0157	U	0.0164	U	0 (1)	20
Batch number: 14149039401A	Sample number(s): 7480929 BKG: P480411										
15a pH by 9045D						4.52		4.55		1	3
Batch number: 14154162401B	Sample number(s): 7480929 BKG: P480416										
14a Moisture Content by 160.3						7.7		7.2		6	20
Batch number: 14155002	Sample number(s): 7480929 UNSPK: P482508										
2378-TCDD	94	92	40-135	0	20						
12378-PeCDD	101	101	40-135	1	20						
123478-HxCDD	98	100	40-135	4	20						
123678-HxCDD	98	97	40-135	0	20						
123789-HxCDD	100	98	40-135	1	20						
1234678-HpCDD	99	95	40-135	3	20						
OCDD	108	96	40-135	10	20						
2378-TCDF	104	103	40-135	0	20						
12378-PeCDF	104	101	40-135	2	20						
23478-PeCDF	100	101	40-135	2	20						
123478-HxCDF	101	103	40-135	3	20						
123678-HxCDF	104	104	40-135	2	20						
123789-HxCDF	101	104	40-135	4	20						
234678-HxCDF	101	101	40-135	1	20						
1234678-HpCDF	100	97	40-135	1	20						
1234789-HpCDF	102	100	40-135	1	20						
OCDF	99	98	40-135	0	20						

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14151SLE026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7480929	99	114	89

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477916
Reported: 06/12/14 at 02:10 PM

Surrogate Quality Control

Blank	99	106	89
LCS	103	119*	89
MS	96	106	88
MSD	99	107	87
Limits:	59-115	61-118	70-127

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 14154A16A

	Trifluorotoluene-F
7480929	90
Blank	90
LCS	96
MS	83
MSD	87
Limits:	50-142

Analysis Name: 20a Pesticides by EPA 8081B
Batch number: 141530004A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7480929	89	79
Blank	90	100
LCS	92	105
MS	94	102
MSD	85	92
Limits:	50-130	20-120

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141610021A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7480929	110	110
Blank	111	109
LCS	113	107
LCSD	118	111
MS	114	109
MSD	107	104
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141540006A

	Chlorobenzene	Orthoterphenyl
7480929	73	88
Blank	74	88
LCS	76	91
MS	78	87
MSD	92	87
Limits:	37-125	66-123

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1477916
Reported: 06/12/14 at 02:10 PM

Surrogate Quality Control

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141540007A

	Chlorobenzene	Orthoterphenyl
7480929	63	70
Blank	50	54*
LCS	62	67
MS	58	61*
MSD	66	69
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 14155002

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7480929	67	74	79	80	79	81
Blank	71	83	90	91	90	98
MS	79	86	88	88	86	87
MSD	84	82	89	90	93	98
OPR	65	79	83	84	83	88
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7480929	84	61	80	67	67	81
Blank	103	60	83	72	71	87
MS	93	79	86	92	86	88
MSD	101	83	89	88	90	93
OPR	88	62	79	72	67	81
Limits:	17-157	24-169	24-185	21-178	26-152	26-123

	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF
7480929	69	59	115	49	42
Blank	78	76	126	67	65
MS	90	92	100	89	88
MSD	95	99	113	94	91
OPR	71	61	106	60	56
Limits:	28-136	29-147	28-143	26-138	17-157

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/28/2014
CarrierName: FedEx
AirbillNo: 770118975080

A-13013
G-1477916
S-7480929

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140528-07
Cooler #: 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc. Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
SL-699-SA5B-TR-0.5	5/28/14 10:00	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X				X				X														
SL-699-SA5B-TR-3.0	5/28/14 10:30	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X				X				X														
SL-699-SA5B-TR-3.0	5/28/14 10:30	SO	None	2 - Encore	10 day																				X																
SL-693-SA5B-TR-3.0	5/28/14 08:35	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X				X				X														
SL-693-SA5B-TR-3.0	5/28/14 08:35	SO	None	2 - Encore	10 day																				X																
TB3-052814	5/28/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																				X																
SL-529-SA5B-TR-0.5	5/28/14 13:05	SO	None	2 - 16 oz glass	10 day	X	X				X	X		X	X			X									X														
SL-529-SA5B-TR-2.0	5/28/14 14:05	SO	None	2 - Encore	10 day																				X																
SL-529-SA5B-TR-2.0	5/28/14 14:05	SO	None	2 - 16 oz glass	10 day	X	X				X	X		X	X			X									X														
SL-529-SA5B-TR-3.0	5/28/14 14:15	SO	None	2 - Encore	10 day																				X																
SL-529-SA5B-TR-3.0	5/28/14 14:15	SO	None	2 - 16 oz glass	10 day	X	X				X	X		X	X			X									X														
SL-529-SA5B-TR-11.0	5/28/14 14:30	SO	None	2 - Encore	10 day																				X																
SL-529-SA5B-TR-11.0	5/28/14 14:30	SO	None	2 - 16 oz glass	10 day	X	X				X	X		X	X			X									X														
SL-699-SA5B-TR-8.0	5/28/14 11:00	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X				X					X														
SL-699-SA5B-TR-8.0	5/28/14 11:00	SO	None	2 - Encore	10 day																				X																

Special Instructions: For all EFH, silica gel clean up required on half the extract. Analyze both extracts for EFH. Morpholine only on TIC.

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time

G-147796

Nicole Maljovec

From: Treadway, Whitney A. <treadwaywa@cdmsmith.com>
Sent: Thursday, May 29, 2014 1:14 PM
To: Nicole Maljovec
Cc: Hartman, Pamela
Subject: RE: Received sample not on COC- SL-699-SA5B-TR-8.0
Attachments: Lancaster 052814 COC(7).pdf

Nicole,

I'm sorry about that. I've attached an updated COC with this sample added. Yes please follow this COC for analytes, including pesticides.

Thank you,

Whitney

Whitney Treadway
CDM Smith
111 Academy Way
Suite 150
Irvine, CA 92617
Direct: 949-930-9889
Main: 949-752-5452
Email: treadwaywa@cdmsmith.com<mailto:treadwaywa@cdmsmith.com>

From: Hartman, Pamela
Sent: Thursday, May 29, 2014 10:06 AM
To: Treadway, Whitney A.
Subject: FW: Received sample not on COC- SL-699-SA5B-TR-8.0

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 15826

Group Number(s): ~~1477802~~ 1477916

Client: CDM SMITH

SSFL PHASE 3

OWL 5/29/14 (3)

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/29/2014 9:35
Number of Packages:	3	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	Yes		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Corey Eshleman (3647) at 10:53 on 05/29/2014

Samples Chilled Details: SSFL PHASE 3

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT121	0.9	DT	Wet	Y	Bagged	N	N
2	DT121	0.7	DT	Wet	Y	Bagged	N	N
3	DT121	1.2	DT	Wet	Y	Bagged	N	N

Extra Sample Details: SSFL PHASE 3

Sample ID on Label	Number of Extra Containers	Date on Label	Comments
SL-699-SA5B-TR-8.0	4	5/28/2014 11:00	2 ENCORE/ 2 (16oz) GLASS

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 09, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/30/2014
Group Number: 1478173
SDG: PH206
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SVL-557-SA5C-SB-3.0-3.5 Soil	7482076
TB2-052914 Water	7482077
SVL-559-SA5C-SB-2.5-3.0 Soil	7482078
EB2-052914 Water	7482079

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: SVL-557-SA5C-SB-3.0-3.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482076
LL Group # 1478173
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 10:00 by RR

Submitted: 05/30/2014 09:45
Reported: 06/09/2014 12:41

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55730 SDG#: PH206-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	23	U	23	8	1.07
10237	Acrolein	107-02-8	120	U	120	23	1.07
10237	Acrylonitrile	107-13-1	23	U	23	5	1.07
10237	t-Amyl methyl ether	994-05-8	6	U	6	1	1.07
10237	Benzene	71-43-2	6	U	6	0.6	1.07
10237	Bromobenzene	108-86-1	6	U	6	1	1.07
10237	Bromochloromethane	74-97-5	6	U	6	1	1.07
10237	Bromodichloromethane	75-27-4	6	U	6	1	1.07
10237	Bromoform	75-25-2	6	U	6	1	1.07
10237	Bromomethane	74-83-9	6	U	6	2	1.07
10237	2-Butanone	78-93-3	12	U	12	5	1.07
10237	t-Butyl alcohol	75-65-0	59	U	59	23	1.07
10237	n-Butylbenzene	104-51-8	6	U	6	1	1.07
10237	sec-Butylbenzene	135-98-8	6	U	6	1	1.07
10237	tert-Butylbenzene	98-06-6	6	U	6	1	1.07
10237	Carbon Disulfide	75-15-0	6	U	6	1	1.07
10237	Carbon Tetrachloride	56-23-5	6	U	6	1	1.07
10237	Chlorobenzene	108-90-7	6	U	6	1	1.07
10237	Chloroethane	75-00-3	6	U	6	2	1.07
10237	2-Chloroethyl Vinyl Ether	110-75-8	12	U	12	2	1.07
10237	Chloroform	67-66-3	6	U	6	1	1.07
10237	1-Chlorohexane	544-10-5	6	U	6	1	1.07
10237	Chloromethane	74-87-3	6	U	6	2	1.07
10237	2-Chlorotoluene	95-49-8	6	U	6	1	1.07
10237	4-Chlorotoluene	106-43-4	6	U	6	1	1.07
10237	Chlorotrifluoroethene	79-38-9	6	U	6	2	1.07
10237	1,2-Dibromo-3-chloropropane	96-12-8	6	U	6	2	1.07
10237	Dibromochloromethane	124-48-1	6	U	6	1	1.07
10237	1,2-Dibromoethane	106-93-4	6	U	6	1	1.07
10237	Dibromomethane	74-95-3	6	U	6	1	1.07
10237	1,2-Dichlorobenzene	95-50-1	6	U	6	1	1.07
10237	1,3-Dichlorobenzene	541-73-1	6	U	6	1	1.07
10237	1,4-Dichlorobenzene	106-46-7	6	U	6	1	1.07
10237	Dichlorodifluoromethane	75-71-8	6	U	6	2	1.07
10237	1,1-Dichloroethane	75-34-3	6	U	6	1	1.07
10237	1,2-Dichloroethane	107-06-2	6	U	6	1	1.07
10237	1,1-Dichloroethene	75-35-4	6	U	6	1	1.07
10237	cis-1,2-Dichloroethene	156-59-2	6	U	6	1	1.07
10237	trans-1,2-Dichloroethene	156-60-5	6	U	6	1	1.07
10237	1,2-Dichloropropane	78-87-5	6	U	6	1	1.07
10237	1,3-Dichloropropane	142-28-9	6	U	6	1	1.07
10237	2,2-Dichloropropane	594-20-7	6	U	6	1	1.07
10237	1,1-Dichloropropene	563-58-6	6	U	6	1	1.07
10237	cis-1,3-Dichloropropene	10061-01-5	6	U	6	1	1.07
10237	trans-1,3-Dichloropropene	10061-02-6	6	U	6	1	1.07
10237	Ethyl t-butyl ether	637-92-3	6	U	6	1	1.07
10237	Ethylbenzene	100-41-4	6	U	6	1	1.07
10237	Freon 113	76-13-1	6	U	6	2	1.07
10237	Freon 133a	75-88-7	6	U	6	2	1.07
10237	Hexachlorobutadiene	87-68-3	6	U	6	2	1.07
10237	2-Hexanone	591-78-6	12	U	12	4	1.07

*=This limit was used in the evaluation of the final result

Sample Description: SVL-557-SA5C-SB-3.0-3.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482076
LL Group # 1478173
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 10:00 by RR

Submitted: 05/30/2014 09:45
Reported: 06/09/2014 12:41

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55730 SDG#: PH206-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	6	U	6	1	1.07
10237	Isopropylbenzene	98-82-8	6	U	6	1	1.07
10237	p-Isopropyltoluene	99-87-6	6	U	6	1	1.07
10237	Methyl Iodide	74-88-4	6	U	6	4	1.07
10237	Methyl Tertiary Butyl Ether	1634-04-4	6	U	6	0.6	1.07
10237	4-Methyl-2-pentanone	108-10-1	12	U	12	4	1.07
10237	Methylene Chloride	75-09-2	6	U	6	2	1.07
10237	n-Propylbenzene	103-65-1	6	U	6	1	1.07
10237	Styrene	100-42-5	6	U	6	1	1.07
10237	1,1,1,2-Tetrachloroethane	630-20-6	6	U	6	1	1.07
10237	1,1,2,2-Tetrachloroethane	79-34-5	6	U	6	1	1.07
10237	Tetrachloroethene	127-18-4	6	U	6	1	1.07
10237	Toluene	108-88-3	6	U	6	1	1.07
10237	1,2,3-Trichlorobenzene	87-61-6	6	U	6	1	1.07
10237	1,2,4-Trichlorobenzene	120-82-1	6	U	6	1	1.07
10237	1,1,1-Trichloroethane	71-55-6	6	U	6	1	1.07
10237	1,1,2-Trichloroethane	79-00-5	6	U	6	1	1.07
10237	Trichloroethene	79-01-6	6	U	6	1	1.07
10237	Trichlorofluoromethane	75-69-4	6	U	6	2	1.07
10237	1,2,3-Trichloropropane	96-18-4	6	U	6	1	1.07
10237	1,2,4-Trimethylbenzene	95-63-6	6	U	6	1	1.07
10237	1,3,5-Trimethylbenzene	108-67-8	6	U	6	1	1.07
10237	Vinyl Acetate	108-05-4	12	U	12	2	1.07
10237	Vinyl Chloride	75-01-4	6	U	6	1	1.07
10237	m+p-Xylene	179601-23-1	6	U	6	1	1.07
10237	o-Xylene	95-47-6	6	U	6	1	1.07
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	9.1		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141562AA	06/05/2014 20:00	Andrea E Lando	1.07
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201415034663	05/30/2014 15:36	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-557-SA5C-SB-3.0-3.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482076
LL Group # 1478173
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 10:00 by RR

Submitted: 05/30/2014 09:45
Reported: 06/09/2014 12:41

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55730 SDG#: PH206-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201415034663	05/30/2014 15:36	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201415034663	05/30/2014 15:20	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14156162401A	06/05/2014 20:03	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: TB2-052914 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7482077
LL Group # 1478173
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 08:00

Submitted: 05/30/2014 09:45
Reported: 06/09/2014 12:41

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB229 SDG#: PH206-02TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	1	U	1	0.5	1
10335	Benzene	71-43-2	1	U	1	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	1	U	1	0.5	1
10335	Bromoform	75-25-2	4	U	4	0.5	1
10335	Bromomethane	74-83-9	1	U	1	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	1	U	1	0.5	1
10335	Chlorobenzene	108-90-7	1	U	1	0.5	1
10335	Chloroethane	75-00-3	1	U	1	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	1	U	1	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	1	U	1	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	1	U	1	0.5	1
10335	1,2-Dibromoethane	106-93-4	1	U	1	0.5	1
10335	Dibromomethane	74-95-3	1	U	1	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	1	U	1	0.5	1
10335	1,1-Dichloroethane	75-34-3	1	U	1	0.5	1
10335	1,2-Dichloroethane	107-06-2	1	U	1	0.5	1
10335	1,1-Dichloroethene	75-35-4	1	U	1	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	1	U	1	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	1	U	1	0.5	1
10335	1,2-Dichloropropane	78-87-5	1	U	1	0.5	1
10335	1,3-Dichloropropane	142-28-9	1	U	1	0.5	1
10335	2,2-Dichloropropane	594-20-7	1	U	1	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	1	U	1	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	1	U	1	0.5	1
10335	Ethyl t-butyl ether	637-92-3	1	U	1	0.5	1
10335	Ethylbenzene	100-41-4	1	U	1	0.5	1
10335	Freon 113	76-13-1	10	U	10	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: TB2-052914 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7482077
LL Group # 1478173
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 08:00

Submitted: 05/30/2014 09:45
Reported: 06/09/2014 12:41

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB229 SDG#: PH206-02TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	1	U	1	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	1	U	1	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	1	U	1	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	3	U	3	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	1	U	1	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	1	U	1	0.5	1
10335	Tetrachloroethene	127-18-4	1	U	1	0.5	1
10335	Toluene	108-88-3	1	U	1	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	1	U	1	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	1	U	1	0.5	1
10335	Trichloroethene	79-01-6	1	U	1	0.5	1
10335	Trichlorofluoromethane	75-69-4	1	U	1	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	1	U	1	0.5	1
10335	m+p-Xylene	179601-23-1	1	U	1	0.5	1
10335	o-Xylene	95-47-6	1	U	1	0.5	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141551AA	06/04/2014 12:07	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141551AA	06/04/2014 12:07	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-559-SA5C-SB-2.5-3.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482078
LL Group # 1478173
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 10:35 by RR

Submitted: 05/30/2014 09:45
Reported: 06/09/2014 12:41

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55925 SDG#: PH206-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	21	U	21	7	0.96
10237	Acrolein	107-02-8	110	U	110	21	0.96
10237	Acrylonitrile	107-13-1	21	U	21	4	0.96
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.96
10237	Benzene	71-43-2	5	U	5	0.5	0.96
10237	Bromobenzene	108-86-1	5	U	5	1	0.96
10237	Bromochloromethane	74-97-5	5	U	5	1	0.96
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.96
10237	Bromoform	75-25-2	5	U	5	1	0.96
10237	Bromomethane	74-83-9	5	U	5	2	0.96
10237	2-Butanone	78-93-3	11	U	11	4	0.96
10237	t-Butyl alcohol	75-65-0	53	U	53	21	0.96
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.96
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.96
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.96
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.96
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.96
10237	Chlorobenzene	108-90-7	5	U	5	1	0.96
10237	Chloroethane	75-00-3	5	U	5	2	0.96
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	0.96
10237	Chloroform	67-66-3	5	U	5	1	0.96
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.96
10237	Chloromethane	74-87-3	5	U	5	2	0.96
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.96
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.96
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.96
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.96
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.96
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.96
10237	Dibromomethane	74-95-3	5	U	5	1	0.96
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.96
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.96
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.96
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.96
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.96
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.96
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.96
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.96
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.96
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.96
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.96
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.96
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.96
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.96
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.96
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.96
10237	Ethylbenzene	100-41-4	5	U	5	1	0.96
10237	Freon 113	76-13-1	5	U	5	2	0.96
10237	Freon 133a	75-88-7	5	U	5	2	0.96
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.96
10237	2-Hexanone	591-78-6	11	U	11	3	0.96

*=This limit was used in the evaluation of the final result

Sample Description: SVL-559-SA5C-SB-2.5-3.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482078
LL Group # 1478173
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 10:35 by RR

Submitted: 05/30/2014 09:45
Reported: 06/09/2014 12:41

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55925 SDG#: PH206-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.96
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.96
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.96
10237	Methyl Iodide	74-88-4	5	U	5	3	0.96
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.96
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	0.96
10237	Methylene Chloride	75-09-2	5	U	5	2	0.96
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.96
10237	Styrene	100-42-5	5	U	5	1	0.96
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.96
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.96
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.96
10237	Toluene	108-88-3	5	U	5	1	0.96
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.96
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.96
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.96
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.96
10237	Trichloroethene	79-01-6	5	U	5	1	0.96
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.96
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.96
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.96
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.96
10237	Vinyl Acetate	108-05-4	11	U	11	2	0.96
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.96
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.96
10237	o-Xylene	95-47-6	5	U	5	1	0.96
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	9.7		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141562AA	06/05/2014 20:22	Andrea E Lando	0.96
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201415034663	05/30/2014 15:36	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-559-SA5C-SB-2.5-3.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482078
LL Group # 1478173
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 10:35 by RR

Submitted: 05/30/2014 09:45
Reported: 06/09/2014 12:41

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55925 SDG#: PH206-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201415034663	05/30/2014 15:36	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201415034663	05/30/2014 15:18	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14156162401A	06/05/2014 20:03	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-052914 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7482079
LL Group # 1478173
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 09:30 by RR

Submitted: 05/30/2014 09:45
Reported: 06/09/2014 12:41

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB229 SDG#: PH206-04EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	1	U	1	0.5	1
10335	Benzene	71-43-2	1	U	1	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	1	U	1	0.5	1
10335	Bromoform	75-25-2	4	U	4	0.5	1
10335	Bromomethane	74-83-9	1	U	1	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	1	U	1	0.5	1
10335	Chlorobenzene	108-90-7	1	U	1	0.5	1
10335	Chloroethane	75-00-3	1	U	1	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	1	U	1	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	1	U	1	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	1	U	1	0.5	1
10335	1,2-Dibromoethane	106-93-4	1	U	1	0.5	1
10335	Dibromomethane	74-95-3	1	U	1	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	1	U	1	0.5	1
10335	1,1-Dichloroethane	75-34-3	1	U	1	0.5	1
10335	1,2-Dichloroethane	107-06-2	1	U	1	0.5	1
10335	1,1-Dichloroethene	75-35-4	1	U	1	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	1	U	1	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	1	U	1	0.5	1
10335	1,2-Dichloropropane	78-87-5	1	U	1	0.5	1
10335	1,3-Dichloropropane	142-28-9	1	U	1	0.5	1
10335	2,2-Dichloropropane	594-20-7	1	U	1	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	1	U	1	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	1	U	1	0.5	1
10335	Ethyl t-butyl ether	637-92-3	1	U	1	0.5	1
10335	Ethylbenzene	100-41-4	1	U	1	0.5	1
10335	Freon 113	76-13-1	10	U	10	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-052914 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7482079
LL Group # 1478173
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 09:30 by RR

Submitted: 05/30/2014 09:45
Reported: 06/09/2014 12:41

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB229 SDG#: PH206-04EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	1	U	1	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	1	U	1	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	1	U	1	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	3	U	3	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	1	U	1	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	1	U	1	0.5	1
10335	Tetrachloroethene	127-18-4	1	U	1	0.5	1
10335	Toluene	108-88-3	1	U	1	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	1	U	1	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	1	U	1	0.5	1
10335	Trichloroethene	79-01-6	1	U	1	0.5	1
10335	Trichlorofluoromethane	75-69-4	1	U	1	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	1	U	1	0.5	1
10335	m+p-Xylene	179601-23-1	1	U	1	0.5	1
10335	o-Xylene	95-47-6	1	U	1	0.5	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141551AA	06/04/2014 12:28	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141551AA	06/04/2014 12:28	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478173
Reported: 06/09/14 at 12:41 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B141562AA	Sample number(s): 7482076,7482078								
Acetone	20 U	20.	7	ug/kg	99	100	41-149	1	30
Acrolein	100 U	100.	20	ug/kg	81	94	50-137	15	30
Acrylonitrile	20 U	20.	4	ug/kg	96	91	58-123	6	30
t-Amyl methyl ether	5 U	5.	1	ug/kg	97	99	63-130	2	30
Benzene	5 U	5.	0.5	ug/kg	102	100	80-120	2	30
Bromobenzene	5 U	5.	1	ug/kg	104	105	78-120	2	30
Bromochloromethane	5 U	5.	1	ug/kg	105	106	75-129	1	30
Bromodichloromethane	5 U	5.	1	ug/kg	98	97	75-120	0	30
Bromoform	5 U	5.	1	ug/kg	101	102	70-126	1	30
Bromomethane	5 U	5.	2	ug/kg	100	94	32-162	5	30
2-Butanone	10 U	10.	4	ug/kg	92	93	47-136	1	30
t-Butyl alcohol	50 U	50.	20	ug/kg	100	107	66-133	6	30
n-Butylbenzene	5 U	5.	1	ug/kg	99	99	72-120	0	30
sec-Butylbenzene	5 U	5.	1	ug/kg	104	101	69-120	3	30
tert-Butylbenzene	5 U	5.	1	ug/kg	99	99	75-120	0	30
Carbon Disulfide	5 U	5.	1	ug/kg	104	96	63-128	8	30
Carbon Tetrachloride	5 U	5.	1	ug/kg	104	102	69-130	2	30
Chlorobenzene	5 U	5.	1	ug/kg	102	105	80-120	3	30
Chloroethane	5 U	5.	2	ug/kg	95	89	17-171	6	30
2-Chloroethyl Vinyl Ether	10 U	10.	2	ug/kg	83	85	52-134	3	30
Chloroform	5 U	5.	1	ug/kg	103	104	80-120	0	30
1-Chlorohexane	5 U	5.	1	ug/kg	93	92	70-130	1	30
Chloromethane	5 U	5.	2	ug/kg	93	90	56-120	3	30
2-Chlorotoluene	5 U	5.	1	ug/kg	103	104	78-120	0	30
4-Chlorotoluene	5 U	5.	1	ug/kg	101	105	79-120	3	30
Chlorotrifluoroethene	5 U	5.	2	ug/kg	81	79	22-131	2	30
1,2-Dibromo-3-chloropropane	5 U	5.	2	ug/kg	93	97	50-132	4	30
Dibromochloromethane	5 U	5.	1	ug/kg	103	106	77-120	3	30
1,2-Dibromoethane	5 U	5.	1	ug/kg	104	104	80-120	0	30
Dibromomethane	5 U	5.	1	ug/kg	99	100	75-120	0	30
1,2-Dichlorobenzene	5 U	5.	1	ug/kg	104	103	80-120	1	30
1,3-Dichlorobenzene	5 U	5.	1	ug/kg	105	104	80-120	1	30
1,4-Dichlorobenzene	5 U	5.	1	ug/kg	103	103	80-120	0	30
Dichlorodifluoromethane	5 U	5.	2	ug/kg	101	99	26-137	3	30
1,1-Dichloroethane	5 U	5.	1	ug/kg	99	98	71-122	1	30
1,2-Dichloroethane	5 U	5.	1	ug/kg	106	108	66-136	2	30
1,1-Dichloroethene	5 U	5.	1	ug/kg	111	102	73-129	8	30
cis-1,2-Dichloroethene	5 U	5.	1	ug/kg	104	104	80-120	0	30
trans-1,2-Dichloroethene	5 U	5.	1	ug/kg	111	103	79-120	8	30
1,2-Dichloropropane	5 U	5.	1	ug/kg	98	98	77-120	0	30
1,3-Dichloropropane	5 U	5.	1	ug/kg	101	101	73-120	0	30
2,2-Dichloropropane	5 U	5.	1	ug/kg	101	99	72-123	2	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478173
Reported: 06/09/14 at 12:41 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/kg	103	104	77-120	1	30
cis-1,3-Dichloropropene	5	U	5.	1	ug/kg	96	96	74-120	0	30
trans-1,3-Dichloropropene	5	U	5.	1	ug/kg	101	100	69-120	0	30
Ethyl t-butyl ether	5	U	5.	1	ug/kg	95	98	59-134	3	30
Ethylbenzene	5	U	5.	1	ug/kg	104	103	80-120	2	30
Freon 113	5	U	5.	2	ug/kg	102	95	64-137	7	30
Freon 133a	5	U	5.	2	ug/kg	96	99	78-120	3	30
Hexachlorobutadiene	5	U	5.	2	ug/kg	96	100	46-130	5	30
2-Hexanone	10	U	10.	3	ug/kg	90	91	40-129	1	30
di-Isopropyl ether	5	U	5.	1	ug/kg	98	99	68-128	1	30
Isopropylbenzene	5	U	5.	1	ug/kg	105	103	76-120	1	30
p-Isopropyltoluene	5	U	5.	1	ug/kg	98	101	69-120	3	30
Methyl Iodide	5	U	5.	3	ug/kg	110	105	72-130	5	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/kg	104	101	69-126	2	30
4-Methyl-2-pentanone	10	U	10.	3	ug/kg	92	93	43-133	1	30
Methylene Chloride	5	U	5.	2	ug/kg	115	103	80-124	11	30
n-Propylbenzene	5	U	5.	1	ug/kg	103	105	77-120	1	30
Styrene	5	U	5.	1	ug/kg	105	104	76-120	1	30
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/kg	105	106	80-120	0	30
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/kg	98	102	71-123	4	30
Tetrachloroethene	5	U	5.	1	ug/kg	117	119	78-120	2	30
Toluene	5	U	5.	1	ug/kg	104	104	80-120	0	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/kg	98	99	64-120	1	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/kg	99	99	68-120	0	30
1,1,1-Trichloroethane	5	U	5.	1	ug/kg	103	100	63-135	3	30
1,1,2-Trichloroethane	5	U	5.	1	ug/kg	101	104	80-120	3	30
Trichloroethene	5	U	5.	1	ug/kg	103	105	80-120	1	30
Trichlorofluoromethane	5	U	5.	2	ug/kg	96	93	58-133	3	30
1,2,3-Trichloropropane	5	U	5.	1	ug/kg	105	110	71-123	5	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/kg	104	105	79-120	1	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/kg	104	105	78-120	1	30
Vinyl Acetate	10	U	10.	2	ug/kg	113	116	40-127	2	30
Vinyl Chloride	5	U	5.	1	ug/kg	97	93	59-120	4	30
m+p-Xylene	5	U	5.	1	ug/kg	105	103	80-120	2	30
o-Xylene	5	U	5.	1	ug/kg	104	103	80-120	0	30
Batch number: Y141551AA	Sample number(s): 7482077,7482079									
Acetone	20	U	20.	6	ug/l	89	88	43-149	1	30
Acrolein	100 U		100.	40	ug/l	76	76	52-129	1	30
Acrylonitrile	20	U	20.	4	ug/l	94	94	62-120	0	30
t-Amyl methyl ether	1	U	1.	0.5	ug/l	91	93	75-120	2	30
Benzene	1	U	1.	0.5	ug/l	93	95	78-120	2	30
Bromobenzene	5	U	5.	1	ug/l	95	97	80-120	3	30
Bromochloromethane	5	U	5.	1	ug/l	95	96	80-121	1	30
Bromodichloromethane	1	U	1.	0.5	ug/l	93	94	73-120	1	30
Bromoform	4	U	4.	0.5	ug/l	89	87	61-120	2	30
Bromomethane	1	U	1.	0.5	ug/l	97	98	58-120	1	30
2-Butanone	10	U	10.	3	ug/l	86	88	54-133	2	30
t-Butyl alcohol	50	U	50.	5	ug/l	96	95	75-120	1	30
n-Butylbenzene	5	U	5.	1	ug/l	88	90	68-120	3	30
sec-Butylbenzene	5	U	5.	1	ug/l	91	93	80-120	2	30
tert-Butylbenzene	5	U	5.	1	ug/l	91	93	73-120	2	30
Carbon Disulfide	5	U	5.	1	ug/l	89	89	58-126	0	30
Carbon Tetrachloride	1	U	1.	0.5	ug/l	101	104	74-130	2	30
Chlorobenzene	1	U	1.	0.5	ug/l	95	96	80-120	2	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478173
Reported: 06/09/14 at 12:41 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroethane	1	U	1.	0.5	ug/l	90	93	56-120	3	30
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/l	101	103	54-126	2	30
Chloroform	1	U	1.	0.5	ug/l	98	100	80-122	3	30
1-Chlorohexane	5	U	5.	1	ug/l	96	99	80-120	3	30
Chloromethane	1	U	1.	0.5	ug/l	103	106	63-120	3	30
2-Chlorotoluene	5	U	5.	1	ug/l	90	93	80-120	3	30
4-Chlorotoluene	5	U	5.	1	ug/l	89	93	80-120	5	30
Chlorotrifluoroethene	5	U	5.	2	ug/l	71	69	47-120	3	30
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/l	85	85	56-120	0	30
Dibromochloromethane	1	U	1.	0.5	ug/l	95	94	72-120	1	30
1,2-Dibromoethane	1	U	1.	0.5	ug/l	97	97	76-120	0	30
Dibromomethane	1	U	1.	0.5	ug/l	93	93	80-120	0	30
1,2-Dichlorobenzene	5	U	5.	1	ug/l	92	95	80-120	3	30
1,3-Dichlorobenzene	5	U	5.	1	ug/l	92	95	80-120	3	30
1,4-Dichlorobenzene	5	U	5.	1	ug/l	94	95	80-120	1	30
Dichlorodifluoromethane	1	U	1.	0.5	ug/l	94	96	48-132	3	30
1,1-Dichloroethane	1	U	1.	0.5	ug/l	92	94	80-120	3	30
1,2-Dichloroethane	1	U	1.	0.5	ug/l	98	99	65-135	1	30
1,1-Dichloroethene	1	U	1.	0.5	ug/l	108	109	76-124	1	30
cis-1,2-Dichloroethene	1	U	1.	0.5	ug/l	96	98	80-120	2	30
trans-1,2-Dichloroethene	1	U	1.	0.5	ug/l	108	113	80-120	4	30
1,2-Dichloropropane	1	U	1.	0.5	ug/l	87	91	80-120	4	30
1,3-Dichloropropane	1	U	1.	0.5	ug/l	90	90	80-120	1	30
2,2-Dichloropropane	1	U	1.	0.5	ug/l	99	99	67-124	1	30
1,1-Dichloropropene	5	U	5.	1	ug/l	98	102	80-120	3	30
cis-1,3-Dichloropropene	1	U	1.	0.5	ug/l	90	91	80-120	2	30
trans-1,3-Dichloropropene	1	U	1.	0.5	ug/l	91	91	76-120	0	30
Ethyl t-butyl ether	1	U	1.	0.5	ug/l	91	93	74-120	2	30
Ethylbenzene	1	U	1.	0.5	ug/l	93	94	79-120	1	30
Freon 113	10	U	10.	2	ug/l	98	97	67-127	1	30
Freon 133a	5	U	5.	2	ug/l	104	101	46-152	3	30
Hexachlorobutadiene	5	U	5.	2	ug/l	89	92	51-125	3	30
2-Hexanone	10	U	10.	3	ug/l	84	86	44-126	2	30
di-Isopropyl ether	1	U	1.	0.5	ug/l	89	92	65-120	3	30
Isopropylbenzene	5	U	5.	1	ug/l	95	95	77-120	0	30
p-Isopropyltoluene	5	U	5.	1	ug/l	89	92	80-120	3	30
Methyl Iodide	1	U	1.	0.5	ug/l	107	108	75-128	0	30
Methyl Tertiary Butyl Ether	1	U	1.	0.5	ug/l	104	105	75-120	1	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	86	88	51-124	3	30
Methylene Chloride	3	U	3.	2	ug/l	106	107	80-120	0	30
n-Propylbenzene	5	U	5.	1	ug/l	90	92	80-120	3	30
Styrene	5	U	5.	1	ug/l	94	95	80-120	2	30
1,1,1,2-Tetrachloroethane	1	U	1.	0.5	ug/l	96	97	80-120	1	30
1,1,2,2-Tetrachloroethane	1	U	1.	0.5	ug/l	86	87	70-120	2	30
Tetrachloroethene	1	U	1.	0.5	ug/l	100	101	80-120	1	30
Toluene	1	U	1.	0.5	ug/l	94	95	80-120	1	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	91	91	58-126	0	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	93	93	65-120	0	30
1,1,1-Trichloroethane	1	U	1.	0.5	ug/l	91	94	66-126	3	30
1,1,2-Trichloroethane	1	U	1.	0.5	ug/l	92	92	80-120	1	30
Trichloroethene	1	U	1.	0.5	ug/l	98	99	80-120	1	30
Trichlorofluoromethane	1	U	1.	0.5	ug/l	102	102	65-130	0	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	91	94	76-120	3	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	93	95	74-120	2	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	93	95	74-120	3	30
Vinyl Acetate	10	U	10.	2	ug/l	74	73	56-135	2	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478173
Reported: 06/09/14 at 12:41 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vinyl Chloride	1	U	1.	0.5	ug/l	97	98	63-120	1	30
m+p-Xylene	1	U	1.	0.5	ug/l	93	95	80-120	2	30
o-Xylene	1	U	1.	0.5	ug/l	93	94	80-120	2	30
Batch number: 14156162401A	Sample number(s): 7482076,7482078									
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14156162401A	Sample number(s): 7482076,7482078					BKG: P482504			
14a Moisture Content by 160.3						1.2	1.4	17	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12a Volatile Organics EPA8260B
Batch number: B141562AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7482076	102	104	99	95
7482078	102	97	99	92
Blank	102	104	100	95
LCS	102	104	104	100
LCSD	101	100	103	101
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141551AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7482077	101	99	97	95
7482079	103	100	96	95
Blank	101	100	96	95
LCS	101	98	98	99
LCSD	100	101	97	98
Limits:	86-118	80-120	88-110	86-115

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/29/2014
CarrierName: FedEx
AirbillNo: 770138544895

A-13013
G-1478173
S-74820 76-79

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140529-02
Cooler #: 3
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate Confirm 6850/6860	Perchlorate 314.0/331	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
SVL-557-SA5C-SB-3.0-3.5	5/29/14 10:00	SO	None	1 - 4 oz glass	10 day																		X																			soil moisture
SVL-557-SA5C-SB-3.0-3.5	5/29/14 10:00	SO	None	3 - Encore	10 day																		X																		
TB2-052914	5/29/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																		X																		
SVL-559-SA5C-SB-2.5-3.0	5/29/14 10:35	SO	None	1 - 4 oz glass	10 day																		X																		soil moisture
SVL-559-SA5C-SB-2.5-3.0	5/29/14 10:35	SO	None	3 - Encore	10 day																		X																		

Special Instructions:

Sampler: Randy Peden

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
	52914	1600									
										5/30/14	0945

SOIL VAPOR

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/29/2014
CarrierName: FedEx
AirbillNo: 770138544895

A-13013
G-1478173
S-7482076-79

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140529-01
Cooler #: 3
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7470 (Water)	Mercury 7471 (Soil)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	1,4 Dioxane 8260 SIM	VOCs 8260	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Perc.Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
EB2-052914	5/29/14 09:30	WQ	HCl	3 - 40 mL Vial	10 day																			X																

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
	5/29/14	1600									
										5/30/14	0945

EB2 - SV

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 15973

Group Number(s): 1478173

Client: CDM Smith

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/30/2014 9:45
Number of Packages:	6	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	No		
Sample Date/Times match COC:	No		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Joseph Gruber (5200) at 11:26 on 05/30/2014

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT131	1.6	DT	Wet	Y	Bagged	N	N
2	DT131	1.2	DT	Wet	Y	Bagged	N	N
3	DT131	1.0	DT	Wet	Y	Bagged	N	N
4	DT131	0.9	DT	Wet	Y	Bagged	N	N
5	DT131	1.6	DT	Wet	Y	Bagged	N	N
6	DT131	1.1	DT	Wet	Y	Bagged	N	N

Sample ID Discrepancy Details

Sample ID on COC	Sample ID on Label	Comments
STS-PHY-SO-08_SM_CC-0.0 -1.0	STS-PHY-SO-08_SM_CC-0.0 -1.0-MS	

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 15973

Group Number(s): 1478173

Client: CDM Smith

Sample Date/Time Discrepancy Details

Sample ID on COC	Date/Time on Label	Comments
STS-PHY-PT-23_YS_A-BG	5/29/2014 10:45	

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 25, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/30/2014
Group Number: 1478251
SDG: PH207
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SL-503-SA5C-TR-0.5 Soil	7482392
SL-503-SA5C-TR-5.0 Soil	7482393
SL-503-SA5C-TR-7.5 Soil	7482394
TB3-052914 Water	7482395
SL-605-SA5C-TR-0.5 Soil	7482396
SL-605-SA5C-TR-5.0 Soil	7482397
SL-605-SA5C-TR-10.0 Soil	7482398
EB1-052914 Water	7482399

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: SL-503-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482392
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 08:05 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50305 SDG#: PH207-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/kg		ug/kg	ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.71		1
12969	Acenaphthylene	208-96-8	0.62	J	1.8	0.35		1
12969	Anthracene	120-12-7	0.92	J	1.8	0.35		1
12969	Benzo(a)anthracene	56-55-3	1.4	J	1.8	0.71		1
12969	Benzo(a)pyrene	50-32-8	0.94	J	1.8	0.71		1
12969	Benzo(b)fluoranthene	205-99-2	3.0		1.8	0.71		1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5		1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.71		1
12969	Benzo(k)fluoranthene	207-08-9	0.79	J	1.8	0.71		1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.4		1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.4		1
12969	Chrysene	218-01-9	4.0		1.8	0.35		1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.71		1
12969	Diethylphthalate	84-66-2	19	U	19	6.4		1
12969	Dimethylphthalate	131-11-3	19	U	19	6.4		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.4		1
12969	Fluoranthene	206-44-0	7.5		1.8	0.71		1
12969	Fluorene	86-73-7	0.84	J	1.8	0.71		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.71		1
12969	1-Methylnaphthalene	90-12-0	1.6	J	1.8	0.71		1
12969	2-Methylnaphthalene	91-57-6	4.7		1.8	0.71		1
12969	Naphthalene	91-20-3	6.7		1.8	0.71		1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.71		1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.4		1
12969	Phenanthrene	85-01-8	7.5		1.8	0.71		1
12969	Pyrene	129-00-0	4.3		1.8	0.71		1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

Perchlorate	**SW-846 6850 1/2007**		ug/kg		ug/kg	ug/kg	ug/kg	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.3	U	5.3	2.2		1

Pesticides/PCBs	**SW-846 8082A**		ug/kg		ug/kg	ug/kg	ug/kg	
13099	Aroclor 5432	63496-31-1	34	U	34	10		1
13099	Aroclor 5442	12642-23-8	34	U	34	10		1
13099	Aroclor 5460	11126-42-4	34	U	34	10		1
13099	PCB-1016	12674-11-2	18	U	18	3.4		1
13099	PCB-1221	11104-28-2	18	U	18	5.3		1
13099	PCB-1232	11141-16-5	18	U	18	4.3		1
13099	PCB-1242	53469-21-9	18	U	18	4.3		1
13099	PCB-1248	12672-29-6	18	U	18	3.4		1
13099	PCB-1254	11097-69-1	7.1	J	18	4.6		1
13099	PCB-1260	11096-82-5	18	U	18	4.1		1
13099	PCB-1262	37324-23-5	18	U	18	3.4		1
13099	PCB-1268	11100-14-4	18	U	18	3.4		1

For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-503-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482392
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 08:05 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50305 SDG#: PH207-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1		1
12952	EFH (C15-C20)	n.a.	4.3	J	5.3	2.1		1
12952	EFH (C21-C30)	n.a.	20		5.3	2.1		1
12952	EFH (C30-C40)	n.a.	35		11	4.2		1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1		1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1		1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1		1
13197	EFH C21-C30 w/ SiGel	n.a.	5.3	U	5.3	2.1		1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.2		1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1		1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	27,000		42.5	7.65		1
06944	Antimony	7440-36-0	4.25	U	4.25	0.786		1
06935	Arsenic	7440-38-2	6.42		4.25	0.743		1
06946	Barium	7440-39-3	136		1.06	0.0350		1
06947	Beryllium	7440-41-7	1.11		1.06	0.0711		1
07914	Boron	7440-42-8	4.11	J	10.6	0.892		1
06949	Cadmium	7440-43-9	1.06	U	1.06	0.0807		1
01650	Calcium	7440-70-2	3,880		21.2	3.55		1
06951	Chromium	7440-47-3	30.2		3.18	0.170		1
06952	Cobalt	7440-48-4	8.54		1.06	0.105		1
06953	Copper	7440-50-8	12.7		2.12	0.308		1
01654	Iron	7439-89-6	27,900		42.5	3.84		1
06955	Lead	7439-92-1	11.4		3.18	0.531		1
01656	Lithium	7439-93-2	25.7		4.2	0.36		1
01657	Magnesium	7439-95-4	4,990		10.6	1.77		1
06958	Manganese	7439-96-5	428		1.06	0.0881		1
06960	Molybdenum	7439-98-7	0.201	J	2.12	0.180		1
06961	Nickel	7440-02-0	17.0		2.12	0.138		1
10145	Phosphorus	7723-14-0	224		10.6	3.07		1
01662	Potassium	7440-09-7	3,370		106	8.85		1
01667	Sodium	7440-23-5	103	J	106	17.7		1
06969	Tin	7440-31-5	2.94	J	10.6	0.234		1
06970	Titanium	7440-32-6	1,010		1.06	0.180		1
06971	Vanadium	7440-62-2	56.1		1.06	0.138		1
06972	Zinc	7440-66-6	53.4		4.25	0.212		1
10146	Zirconium	7440-67-7	5.44		5.31	0.892		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.226	J	0.425	0.106		2
06142	Silver	7440-22-4	0.0728	J	0.212	0.0276		2
06144	Strontium	7440-24-6	37.8		0.425	0.0722		2
06145	Thallium	7440-28-0	0.327		0.212	0.0318		2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0183		0.0172	0.0103		1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-503-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482392
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

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Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50305 SDG#: PH207-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 21.9 C.	n.a.	6.32	0.0100	0.0100		1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	5.8	0.10	0.10		1

*=This limit was used in the evaluation of the final result
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Sample Description: SL-503-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482392
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CDM Federal Programs Corp.
3201 Jermantown Road
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Fairfax VA 22030

50305 SDG#: PH207-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.189	JQ	1.02	0.0784		1
11031	12378-PeCDD	40321-76-4	1.48	JB	5.12	0.0854		1
11031	123478-HxCDD	39227-28-6	2.07	JB	5.12	0.0688		1
11031	123678-HxCDD	57653-85-7	4.94	JB	5.12	0.0703		1
11031	123789-HxCDD	19408-74-3	4.88	JB	5.12	0.0661		1
11031	1234678-HpCDD	35822-46-9	119	B	5.12	0.147		1
11031	OCDD	3268-87-9	2,540	B	10.2	0.169		1
11031	2378-TCDF	51207-31-9	0.129	JBQ	1.02	0.0790		1
11031	12378-PeCDF	57117-41-6	0.379	JQ	5.12	0.0307		1
11031	23478-PeCDF	57117-31-4	0.288	JB	5.12	0.0309		1
11031	123478-HxCDF	70648-26-9	0.481	JB	5.12	0.0569		1
11031	123678-HxCDF	57117-44-9	0.332	JBQ	5.12	0.0506		1
11031	123789-HxCDF	72918-21-9	0.474	JB	5.12	0.0582		1
11031	234678-HxCDF	60851-34-5	0.387	JB	5.12	0.0527		1
11031	1234678-HpCDF	67562-39-4	7.57	B	5.12	0.0294		1
11031	1234789-HpCDF	55673-89-7	0.442	JBQ	5.12	0.0513		1
11031	OCDF	39001-02-0	24.6	B	10.2	0.0631		1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	4.92					1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	86	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	73	23 - 140
13C12-OCDD	64	17 - 157
13C12-2378-TCDF	79	24 - 169
13C12-12378-PeCDF	97	24 - 185
13C12-23478-PeCDF	91	21 - 178
13C12-123478-HxCDF	77	26 - 152
13C12-123678-HxCDF	86	26 - 123
13C12-234678-HxCDF	80	28 - 136
13C12-123789-HxCDF	80	29 - 147
13C12-1234678-HpCDF	93	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	49	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-503-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482392
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 08:05 by RR

Submitted: 05/30/2014 09:45
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50305 SDG#: PH207-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Action Limit	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-503-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482392
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 08:05 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50305 SDG#: PH207-01

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14151SLE026	06/04/2014 13:13	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14151SLE026	06/02/2014 03:30	Sherry L Morrow	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141550002A	06/05/2014 17:27	Richard A Shober	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141540027A	06/09/2014 23:02	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141540027A	06/04/2014 07:40	Olivia Arosemena	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141550002A	06/05/2014 06:15	Maria Davenport	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540006A	06/05/2014 03:54	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540007A	06/05/2014 20:26	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540007A	06/03/2014 16:35	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540006A	06/03/2014 16:35	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14157002	06/09/2014 18:34	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14157002	06/06/2014 11:25	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1
06944	Antimony	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1
06951	Chromium	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1
06955	Lead	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1
06958	Manganese	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1

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Sample Description: SL-503-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482392
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 08:05 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
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Fairfax VA 22030

50305 SDG#: PH207-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	141540637001	06/04/2014 23:14	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	141540637001B	06/05/2014 06:51	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141540637001A	06/05/2014 06:51	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141540637001A	06/05/2014 06:51	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141540637001A	06/05/2014 06:51	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638001	06/09/2014 09:33	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141540637001	06/04/2014 08:27	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638001	06/05/2014 10:28	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14150039401A	05/30/2014 20:25	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14156162402A	06/05/2014 19:14	Scott W Freisher	1

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Sample Description: SL-503-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482393
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 08:20 by RR

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CDM Federal Programs Corp.
3201 Jermantown Road
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50350 SDG#: PH207-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.9	U	1.9	0.74		1
12969	Acenaphthylene	208-96-8	1.9	U	1.9	0.37		1
12969	Anthracene	120-12-7	0.90	J	1.9	0.37		1
12969	Benzo(a)anthracene	56-55-3	0.93	J	1.9	0.74		1
12969	Benzo(a)pyrene	50-32-8	1.9	U	1.9	0.74		1
12969	Benzo(b)fluoranthene	205-99-2	1.9	U	1.9	0.74		1
12969	Benzo(e)pyrene	192-97-2	19	U	19	3.7		1
12969	Benzo(g,h,i)perylene	191-24-2	1.9	U	1.9	0.74		1
12969	Benzo(k)fluoranthene	207-08-9	1.9	U	1.9	0.74		1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.7		1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.7		1
12969	Chrysene	218-01-9	0.76	J	1.9	0.37		1
12969	Dibenz(a,h)anthracene	53-70-3	1.9	U	1.9	0.74		1
12969	Diethylphthalate	84-66-2	20	U	20	6.7		1
12969	Dimethylphthalate	131-11-3	20	U	20	6.7		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20	U	20	6.7		1
12969	Fluoranthene	206-44-0	3.4		1.9	0.74		1
12969	Fluorene	86-73-7	0.90	J	1.9	0.74		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.9	U	1.9	0.74		1
12969	1-Methylnaphthalene	90-12-0	1.9	U	1.9	0.74		1
12969	2-Methylnaphthalene	91-57-6	1.9	U	1.9	0.74		1
12969	Naphthalene	91-20-3	1.4	J	1.9	0.74		1
12969	N-Nitrosodimethylamine	62-75-9	4.6		1.9	0.74		1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.7		1
12969	Phenanthrene	85-01-8	5.0		1.9	0.74		1
12969	Pyrene	129-00-0	2.5		1.9	0.74		1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2		24.9
Perchlorate	**SW-846 6850 1/2007**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.6	U	5.6	2.3		1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11		1
13099	Aroclor 5442	12642-23-8	36	U	36	11		1
13099	Aroclor 5460	11126-42-4	36	U	36	11		1
13099	PCB-1016	12674-11-2	19	U	19	3.6		1
13099	PCB-1221	11104-28-2	19	U	19	5.6		1
13099	PCB-1232	11141-16-5	19	U	19	4.5		1
13099	PCB-1242	53469-21-9	19	U	19	4.5		1
13099	PCB-1248	12672-29-6	19	U	19	3.6		1
13099	PCB-1254	11097-69-1	19	U	19	4.8		1
13099	PCB-1260	11096-82-5	19	U	19	4.3		1

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Sample Description: SL-503-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482393
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 08:20 by RR

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CDM Federal Programs Corp.
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50350 SDG#: PH207-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
13099	PCB-1262	37324-23-5	19	U	19	3.6		1
13099	PCB-1268	11100-14-4	19	U	19	3.6		1
	For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.							
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.6	U	5.6	2.2		1
12952	EFH (C15-C20)	n.a.	5.6	U	5.6	2.2		1
12952	EFH (C21-C30)	n.a.	5.6	U	5.6	2.2		1
12952	EFH (C30-C40)	n.a.	11	U	11	4.5		1
12952	EFH (C8-C11)	n.a.	5.6	U	5.6	2.2		1
13197	EFH C12-C14 w/ SiGel	n.a.	5.6	U	5.6	2.2		1
13197	EFH C15-C20 w/ SiGel	n.a.	5.6	U	5.6	2.2		1
13197	EFH C21-C30 w/ SiGel	n.a.	5.6	U	5.6	2.2		1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.5		1
13197	EFH C8-C11 w/ SiGel	n.a.	5.6	U	5.6	2.2		1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	24,800		42.5	7.66		1
06944	Antimony	7440-36-0	4.25	U	4.25	0.787		1
06935	Arsenic	7440-38-2	6.90		4.25	0.744		1
06946	Barium	7440-39-3	133		1.06	0.0351		1
06947	Beryllium	7440-41-7	0.976	J	1.06	0.0712		1
07914	Boron	7440-42-8	3.55	J	10.6	0.893		1
06949	Cadmium	7440-43-9	1.06	U	1.06	0.0808		1
01650	Calcium	7440-70-2	4,420		21.3	3.55		1
06951	Chromium	7440-47-3	28.2		3.19	0.170		1
06952	Cobalt	7440-48-4	9.42		1.06	0.105		1
06953	Copper	7440-50-8	9.76		2.13	0.308		1
01654	Iron	7439-89-6	27,600		42.5	3.85		1
06955	Lead	7439-92-1	7.55		3.19	0.531		1
01656	Lithium	7439-93-2	29.6		4.3	0.36		1
01657	Magnesium	7439-95-4	5,720		10.6	1.78		1
06958	Manganese	7439-96-5	338		1.06	0.0882		1
06960	Molybdenum	7439-98-7	2.13	U	2.13	0.181		1
06961	Nickel	7440-02-0	17.3		2.13	0.138		1
10145	Phosphorus	7723-14-0	200		10.6	3.07		1
01662	Potassium	7440-09-7	1,950		106	8.86		1
01667	Sodium	7440-23-5	552		106	17.8		1
06969	Tin	7440-31-5	2.80	J	10.6	0.234		1
06970	Titanium	7440-32-6	981		1.06	0.181		1
06971	Vanadium	7440-62-2	55.0		1.06	0.138		1
06972	Zinc	7440-66-6	48.6		4.25	0.213		1
10146	Zirconium	7440-67-7	5.57		5.31	0.893		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	

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Sample Description: SL-503-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482393
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 08:20 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
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50350 SDG#: PH207-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6020A**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.425 U	0.425	0.106		2
06142	Silver	7440-22-4	0.0707 J	0.213	0.0276		2
06144	Strontium	7440-24-6	37.2	0.425	0.0723		2
06145	Thallium	7440-28-0	0.213	0.213	0.0319		2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0186	0.0180	0.0108		1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**	**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.15	0.0100	0.0100		1
	The pH was measured in water at 21.8 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	10.4	0.10	0.10		1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

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Sample Description: SL-503-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482393
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 08:20 by RR

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50350 SDG#: PH207-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.11	U	1.11	0.0714		1
11031	12378-PeCDD	40321-76-4	5.53	U	5.53	0.0385		1
11031	123478-HxCDD	39227-28-6	5.53	U	5.53	0.0262		1
11031	123678-HxCDD	57653-85-7	0.0373	JBQ	5.53	0.0278		1
11031	123789-HxCDD	19408-74-3	0.123	JB	5.53	0.0260		1
11031	1234678-HpCDD	35822-46-9	0.814	JB	5.53	0.0365		1
11031	OCDD	3268-87-9	15.7	B	11.1	0.0301		1
11031	2378-TCDF	51207-31-9	1.11	U	1.11	0.0479		1
11031	12378-PeCDF	57117-41-6	0.0542	J	5.53	0.0190		1
11031	23478-PeCDF	57117-31-4	0.0328	JBQ	5.53	0.0188		1
11031	123478-HxCDF	70648-26-9	0.0565	JB	5.53	0.0245		1
11031	123678-HxCDF	57117-44-9	5.53	U	5.53	0.0209		1
11031	123789-HxCDF	72918-21-9	0.105	JBQ	5.53	0.0277		1
11031	234678-HxCDF	60851-34-5	0.0401	JBQ	5.53	0.0219		1
11031	1234678-HpCDF	67562-39-4	0.119	JBQ	5.53	0.0119		1
11031	1234789-HpCDF	55673-89-7	0.0861	JBQ	5.53	0.0214		1
11031	OCDF	39001-02-0	0.436	JBQ	11.1	0.0480		1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0324					1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	64	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	74	23 - 140
13C12-OCDD	63	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	83	21 - 178
13C12-123478-HxCDF	74	26 - 152
13C12-123678-HxCDF	85	26 - 123
13C12-234678-HxCDF	80	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	93	28 - 143
13C12-1234789-HpCDF	59	26 - 138
13C12-OCDF	48	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-503-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482393
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 08:20 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

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50350 SDG#: PH207-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Action Limit	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-503-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482393
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 08:20 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50350 SDG#: PH207-02

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14151SLE026	06/04/2014 13:46	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14151SLE026	06/02/2014 03:30	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14154A16A	06/04/2014 04:29	Laura M Krieger	24.9
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201415034662	05/30/2014 15:11	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201415034662	05/30/2014 15:11	Mitchell R Washel	n.a.
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141550002A	06/05/2014 17:39	Richard A Shober	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141540027A	06/09/2014 23:21	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141540027A	06/04/2014 07:40	Olivia Arosemena	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141550002A	06/05/2014 06:15	Maria Davenport	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540006A	06/05/2014 01:44	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540007A	06/05/2014 20:47	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540007A	06/03/2014 16:35	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540006A	06/03/2014 16:35	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14157002	06/09/2014 19:30	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14157002	06/06/2014 11:25	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1
06944	Antimony	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1
06951	Chromium	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1
06955	Lead	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1
06958	Manganese	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1

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Sample Description: SL-503-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482393
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 08:20 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50350 SDG#: PH207-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10145	Phosphorus	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1
06970	Titanium	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	141540637001	06/04/2014 23:18	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	141540637001B	06/05/2014 06:54	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141540637001A	06/05/2014 06:54	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141540637001A	06/05/2014 06:54	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141540637001A	06/05/2014 06:54	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638001	06/09/2014 09:35	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141540637001	06/04/2014 08:27	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638001	06/05/2014 10:28	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14150039401A	05/30/2014 20:25	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14156162402A	06/05/2014 19:14	Scott W Freisher	1

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Sample Description: SL-503-SA5C-TR-7.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482394
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 09:00 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50375 SDG#: PH207-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.71		1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36		1
12969	Anthracene	120-12-7	1.8	U	1.8	0.36		1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.71		1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.71		1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.71		1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.6		1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.71		1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.71		1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.4		1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.4		1
12969	Chrysene	218-01-9	1.8	U	1.8	0.36		1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.71		1
12969	Diethylphthalate	84-66-2	19	U	19	6.4		1
12969	Dimethylphthalate	131-11-3	19	U	19	6.4		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.4		1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.71		1
12969	Fluorene	86-73-7	1.8	U	1.8	0.71		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.71		1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.71		1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.71		1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.71		1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.71		1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.4		1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.71		1
12969	Pyrene	129-00-0	1.8	U	1.8	0.71		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: benzo(e)pyrene							
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.2	U	1.2	0.2		27
Perchlorate	**SW-846 6850 1/2007**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.3	U	5.3	2.2		1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	10		1
13099	Aroclor 5442	12642-23-8	35	U	35	10		1
13099	Aroclor 5460	11126-42-4	35	U	35	10		1
13099	PCB-1016	12674-11-2	18	U	18	3.5		1
13099	PCB-1221	11104-28-2	18	U	18	5.4		1
13099	PCB-1232	11141-16-5	18	U	18	4.3		1
13099	PCB-1242	53469-21-9	18	U	18	4.3		1
13099	PCB-1248	12672-29-6	18	U	18	3.5		1
13099	PCB-1254	11097-69-1	18	U	18	4.6		1
13099	PCB-1260	11096-82-5	18	U	18	4.1		1

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Sample Description: SL-503-SA5C-TR-7.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482394
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 09:00 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50375 SDG#: PH207-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
13099	PCB-1262	37324-23-5	18	U	18	3.5		1
13099	PCB-1268	11100-14-4	18	U	18	3.5		1
	For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.							
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1		1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1		1
12952	EFH (C21-C30)	n.a.	5.3	U	5.3	2.1		1
12952	EFH (C30-C40)	n.a.	11	U	11	4.3		1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1		1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1		1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1		1
13197	EFH C21-C30 w/ SiGel	n.a.	5.3	U	5.3	2.1		1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.3		1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1		1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,000		40.7	7.33		1
06944	Antimony	7440-36-0	4.07	U	4.07	0.752		1
06935	Arsenic	7440-38-2	8.02		4.07	0.711		1
06946	Barium	7440-39-3	66.9		1.02	0.0335		1
06947	Beryllium	7440-41-7	0.541	J	1.02	0.0681		1
07914	Boron	7440-42-8	0.959	J	10.2	0.854		1
06949	Cadmium	7440-43-9	1.02	U	1.02	0.0772		1
01650	Calcium	7440-70-2	7,750		20.3	3.39		1
06951	Chromium	7440-47-3	28.4		3.05	0.163		1
06952	Cobalt	7440-48-4	6.04		1.02	0.101		1
06953	Copper	7440-50-8	10.6		2.03	0.295		1
01654	Iron	7439-89-6	21,700		40.7	3.68		1
06955	Lead	7439-92-1	3.51		3.05	0.508		1
01656	Lithium	7439-93-2	25.0		4.1	0.35		1
01657	Magnesium	7439-95-4	6,070		10.2	1.70		1
06958	Manganese	7439-96-5	268		1.02	0.0844		1
06960	Molybdenum	7439-98-7	2.03	U	2.03	0.173		1
06961	Nickel	7440-02-0	19.1		2.03	0.132		1
10145	Phosphorus	7723-14-0	629		10.2	2.94		1
01662	Potassium	7440-09-7	2,300		102	8.48		1
01667	Sodium	7440-23-5	514		102	17.0		1
06969	Tin	7440-31-5	2.64	J	10.2	0.224		1
06970	Titanium	7440-32-6	1,180		1.02	0.173		1
06971	Vanadium	7440-62-2	44.9		1.02	0.132		1
06972	Zinc	7440-66-6	54.7		4.07	0.203		1
10146	Zirconium	7440-67-7	3.88	J	5.08	0.854		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-503-SA5C-TR-7.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482394
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 09:00 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50375 SDG#: PH207-03

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals		**SW-846 6020A**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium		7782-49-2	0.407 U	0.407	0.102		2
06142	Silver		7440-22-4	0.0271 J	0.203	0.0264		2
06144	Strontium		7440-24-6	30.1	0.407	0.0691		2
06145	Thallium		7440-28-0	0.271	0.203	0.0305		2
		SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A		7439-97-6	0.0109 J	0.0174	0.0105		1
Wet Chemistry		**SW-846 9045D modified**		**Std. Units**	**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 21.9 C.		n.a.	8.88	0.0100	0.0100		1
Wet Chemistry		**EPA 160.3 modified**		**%**	**%**	**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.		n.a.	6.3	0.10	0.10		1

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Sample Description: SL-503-SA5C-TR-7.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482394
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 09:00 by RR

Submitted: 05/30/2014 09:45
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50375 SDG#: PH207-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.04 U	1.04	0.0569		1
11031	12378-PeCDD	40321-76-4	0.0683 JBQ	5.20	0.0323		1
11031	123478-HxCDD	39227-28-6	5.20 U	5.20	0.0245		1
11031	123678-HxCDD	57653-85-7	0.0681 JBQ	5.20	0.0256		1
11031	123789-HxCDD	19408-74-3	0.0308 JBQ	5.20	0.0232		1
11031	1234678-HpCDD	35822-46-9	0.745 JB	5.20	0.0332		1
11031	OCDD	3268-87-9	9.95 JB	10.4	0.0273		1
11031	2378-TCDF	51207-31-9	1.04 U	1.04	0.0374		1
11031	12378-PeCDF	57117-41-6	0.0412 JQ	5.20	0.0149		1
11031	23478-PeCDF	57117-31-4	5.20 U	5.20	0.0149		1
11031	123478-HxCDF	70648-26-9	0.0338 JBQ	5.20	0.0199		1
11031	123678-HxCDF	57117-44-9	0.0431 JBQ	5.20	0.0188		1
11031	123789-HxCDF	72918-21-9	0.0614 JB	5.20	0.0220		1
11031	234678-HxCDF	60851-34-5	0.0355 JBQ	5.20	0.0181		1
11031	1234678-HpCDF	67562-39-4	0.0841 JBQ	5.20	0.00908		1
11031	1234789-HpCDF	55673-89-7	0.0665 JBQ	5.20	0.0151		1
11031	OCDF	39001-02-0	0.342 JBQ	10.4	0.0406		1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0166				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	69	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	74	23 - 140
13C12-OCDD	65	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	94	24 - 185
13C12-23478-PeCDF	89	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	82	26 - 123
13C12-234678-HxCDF	79	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	90	28 - 143
13C12-1234789-HpCDF	61	26 - 138
13C12-OCDF	50	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-503-SA5C-TR-7.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482394
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 09:00 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

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Suite 400
Fairfax VA 22030

50375 SDG#: PH207-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Action Limit	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-503-SA5C-TR-7.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482394
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 09:00 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50375 SDG#: PH207-03

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14151SLE026	06/05/2014 07:26	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14151SLE026	06/02/2014 03:30	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14154A16A	06/04/2014 05:06	Laura M Krieger	27
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201415034662	05/30/2014 15:12	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201415034662	05/30/2014 15:12	Mitchell R Washel	n.a.
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141550002A	06/05/2014 17:52	Richard A Shober	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141540027A	06/10/2014 00:53	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141540027A	06/04/2014 07:40	Olivia Arosemena	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141550002A	06/05/2014 06:15	Maria Davenport	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540006A	06/05/2014 02:06	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540007A	06/05/2014 21:09	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540007A	06/03/2014 16:35	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540006A	06/03/2014 16:35	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14157002	06/09/2014 20:27	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14157002	06/06/2014 11:25	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1
06944	Antimony	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1
06951	Chromium	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1
06955	Lead	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1
06958	Manganese	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1

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Sample Description: SL-503-SA5C-TR-7.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482394
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 09:00 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50375 SDG#: PH207-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10145	Phosphorus	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1
06970	Titanium	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	141540637001	06/04/2014 23:22	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	141540637001B	06/05/2014 06:56	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141540637001A	06/05/2014 06:56	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141540637001A	06/05/2014 06:56	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141540637001A	06/05/2014 06:56	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638001	06/09/2014 09:37	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141540637001	06/04/2014 08:27	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638001	06/05/2014 10:28	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14150039401A	05/30/2014 20:25	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14156162402A	06/05/2014 19:14	Scott W Freisher	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: TB3-052914 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7482395
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 08:00

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB329 SDG#: PH207-04TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		ug/l		ug/l	ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20		1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14150B94A	06/03/2014 13:42	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14150B94A	06/03/2014 13:42	Laura M Krieger	1

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Sample Description: SL-605-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482396
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 13:15 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

60505 SDG#: PH207-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/kg		ug/kg	ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.71		1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35		1
12969	Anthracene	120-12-7	0.58	J	1.8	0.35		1
12969	Benzo(a)anthracene	56-55-3	0.92	J	1.8	0.71		1
12969	Benzo(a)pyrene	50-32-8	1.5	J	1.8	0.71		1
12969	Benzo(b)fluoranthene	205-99-2	2.4		1.8	0.71		1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5		1
12969	Benzo(g,h,i)perylene	191-24-2	2.1		1.8	0.71		1
12969	Benzo(k)fluoranthene	207-08-9	0.80	J	1.8	0.71		1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.4		1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.4		1
12969	Chrysene	218-01-9	1.4	J	1.8	0.35		1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.71		1
12969	Diethylphthalate	84-66-2	19	U	19	6.4		1
12969	Dimethylphthalate	131-11-3	19	U	19	6.4		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.4		1
12969	Fluoranthene	206-44-0	1.7	J	1.8	0.71		1
12969	Fluorene	86-73-7	1.8	U	1.8	0.71		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.3	J	1.8	0.71		1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.71		1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.71		1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.71		1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.71		1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.4		1
12969	Phenanthrene	85-01-8	1.0	J	1.8	0.71		1
12969	Pyrene	129-00-0	1.6	J	1.8	0.71		1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
benzo(e)pyrene

Perchlorate	**SW-846 6850 1/2007**		ug/kg		ug/kg	ug/kg	ug/kg	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.3	U	5.3	2.2		1
Pesticides/PCBs	**SW-846 8082A**		ug/kg		ug/kg	ug/kg	ug/kg	
13099	Aroclor 5432	63496-31-1	35	U	35	10		1
13099	Aroclor 5442	12642-23-8	35	U	35	10		1
13099	Aroclor 5460	11126-42-4	35	U	35	10		1
13099	PCB-1016	12674-11-2	18	U	18	3.5		1
13099	PCB-1221	11104-28-2	18	U	18	5.3		1
13099	PCB-1232	11141-16-5	18	U	18	4.3		1
13099	PCB-1242	53469-21-9	18	U	18	4.3		1
13099	PCB-1248	12672-29-6	18	U	18	3.5		1
13099	PCB-1254	11097-69-1	18	U	18	4.6		1
13099	PCB-1260	11096-82-5	31		18	4.1		1
13099	PCB-1262	37324-23-5	18	U	18	3.5		1
13099	PCB-1268	11100-14-4	18	U	18	3.5		1

For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.

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Sample Description: SL-605-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482396
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 13:15 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

60505 SDG#: PH207-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1		1
12952	EFH (C15-C20)	n.a.	2.3	J	5.3	2.1		1
12952	EFH (C21-C30)	n.a.	10		5.3	2.1		1
12952	EFH (C30-C40)	n.a.	16		11	4.3		1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1		1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1		1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1		1
13197	EFH C21-C30 w/ SiGel	n.a.	3.9	J	5.3	2.1		1
13197	EFH C30-C40 w/ SiGel	n.a.	5.1	J	11	4.3		1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1		1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	24,900		41.4	7.45		1
06944	Antimony	7440-36-0	4.14	U	4.14	0.765		1
06935	Arsenic	7440-38-2	6.61		4.14	0.724		1
06946	Barium	7440-39-3	131		1.03	0.0341		1
06947	Beryllium	7440-41-7	1.05		1.03	0.0693		1
07914	Boron	7440-42-8	10.3	U	10.3	0.869		1
06949	Cadmium	7440-43-9	1.03	U	1.03	0.0786		1
01650	Calcium	7440-70-2	3,980		20.7	3.45		1
06951	Chromium	7440-47-3	24.8		3.10	0.165		1
06952	Cobalt	7440-48-4	12.4		1.03	0.102		1
06953	Copper	7440-50-8	8.74		2.07	0.300		1
01654	Iron	7439-89-6	27,800		41.4	3.74		1
06955	Lead	7439-92-1	8.90		3.10	0.517		1
01656	Lithium	7439-93-2	22.8		4.1	0.35		1
01657	Magnesium	7439-95-4	4,360		10.3	1.73		1
06958	Manganese	7439-96-5	472		1.03	0.0858		1
06960	Molybdenum	7439-98-7	0.197	J	2.07	0.176		1
06961	Nickel	7440-02-0	13.2		2.07	0.134		1
10145	Phosphorus	7723-14-0	148		10.3	2.99		1
01662	Potassium	7440-09-7	1,870		103	8.62		1
01667	Sodium	7440-23-5	114		103	17.3		1
06969	Tin	7440-31-5	3.12	J	10.3	0.227		1
06970	Titanium	7440-32-6	915		1.03	0.176		1
06971	Vanadium	7440-62-2	50.3		1.03	0.134		1
06972	Zinc	7440-66-6	46.6		4.14	0.207		1
10146	Zirconium	7440-67-7	4.09	J	5.17	0.869		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.164	J	0.414	0.103		2
06142	Silver	7440-22-4	0.0583	J	0.207	0.0269		2
06144	Strontium	7440-24-6	36.0		0.414	0.0703		2
06145	Thallium	7440-28-0	0.295		0.207	0.0310		2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0183		0.0168	0.0101		1

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Sample Description: SL-605-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482396
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 13:15 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

60505 SDG#: PH207-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 22 C.	n.a.	7.93	0.0100	0.0100		1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	6.1	0.10	0.10		1

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Sample Description: SL-605-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482396
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 13:15 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

60505 SDG#: PH207-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.06	U	1.06	0.0543		1
11031	12378-PeCDD	40321-76-4	5.31	U	5.31	0.0435		1
11031	123478-HxCDD	39227-28-6	0.0661	JB	5.31	0.0391		1
11031	123678-HxCDD	57653-85-7	0.256	JB	5.31	0.0409		1
11031	123789-HxCDD	19408-74-3	0.219	JB	5.31	0.0381		1
11031	1234678-HpCDD	35822-46-9	10.2	B	5.31	0.0569		1
11031	OCDD	3268-87-9	140	B	10.6	0.0388		1
11031	2378-TCDF	51207-31-9	1.06	U	1.06	0.0461		1
11031	12378-PeCDF	57117-41-6	2.63	J	5.31	0.0273		1
11031	23478-PeCDF	57117-31-4	0.0996	JBQ	5.31	0.0257		1
11031	123478-HxCDF	70648-26-9	0.311	JB	5.31	0.0404		1
11031	123678-HxCDF	57117-44-9	0.540	JB	5.31	0.0376		1
11031	123789-HxCDF	72918-21-9	0.199	JBQ	5.31	0.0429		1
11031	234678-HxCDF	60851-34-5	0.0965	JB	5.31	0.0385		1
11031	1234678-HpCDF	67562-39-4	1.66	JB	5.31	0.0168		1
11031	1234789-HpCDF	55673-89-7	0.165	JBQ	5.31	0.0247		1
11031	OCDF	39001-02-0	4.40	JB	10.6	0.0395		1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.390					1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	77	25 - 164
13C12-12378-PeCDD	91	25 - 181
13C12-123478-HxCDD	86	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	66	17 - 157
13C12-2378-TCDF	83	24 - 169
13C12-12378-PeCDF	100	24 - 185
13C12-23478-PeCDF	98	21 - 178
13C12-123478-HxCDF	83	26 - 152
13C12-123678-HxCDF	90	26 - 123
13C12-234678-HxCDF	88	28 - 136
13C12-123789-HxCDF	84	29 - 147
13C12-1234678-HpCDF	93	28 - 143
13C12-1234789-HpCDF	68	26 - 138
13C12-OCDF	55	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-605-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482396
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 13:15 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

60505 SDG#: PH207-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Action Limit	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-605-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482396
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 13:15 by RR

Submitted: 05/30/2014 09:45
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

60505 SDG#: PH207-05

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14151SLE026	06/05/2014 07:59	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14151SLE026	06/02/2014 03:30	Sherry L Morrow	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141550002A	06/05/2014 18:05	Richard A Shober	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141540027A	06/10/2014 01:11	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141540027A	06/04/2014 07:40	Olivia Arosemena	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141550002A	06/05/2014 06:15	Maria Davenport	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540006A	06/05/2014 04:16	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540007A	06/05/2014 21:30	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540007A	06/03/2014 16:35	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540006A	06/03/2014 16:35	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14157002	06/09/2014 21:24	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14157002	06/06/2014 11:25	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1
06944	Antimony	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1
06951	Chromium	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1
06955	Lead	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1
06958	Manganese	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1

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Sample Description: SL-605-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482396
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 13:15 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

60505 SDG#: PH207-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	141540637001	06/04/2014 23:26	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	141540637001B	06/05/2014 06:58	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141540637001A	06/05/2014 06:58	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141540637001A	06/05/2014 06:58	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141540637001A	06/05/2014 06:58	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638001	06/09/2014 09:39	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141540637001	06/04/2014 08:27	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638001	06/05/2014 10:28	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14150039401A	05/30/2014 20:25	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14156162402A	06/05/2014 19:14	Scott W Freisher	1

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Sample Description: SL-605-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482397
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 13:30 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
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Fairfax VA 22030

60550 SDG#: PH207-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.72		1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36		1
12969	Anthracene	120-12-7	0.59	J	1.8	0.36		1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.72		1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.72		1
12969	Benzo(b)fluoranthene	205-99-2	0.72	J	1.8	0.72		1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.6		1
12969	Benzo(g,h,i)perylene	191-24-2	1.1	J	1.8	0.72		1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.72		1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.5		1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.5		1
12969	Chrysene	218-01-9	1.6	J	1.8	0.36		1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.72		1
12969	Diethylphthalate	84-66-2	19	U	19	6.5		1
12969	Dimethylphthalate	131-11-3	19	U	19	6.5		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.5		1
12969	Fluoranthene	206-44-0	1.1	J	1.8	0.72		1
12969	Fluorene	86-73-7	1.8	U	1.8	0.72		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.72		1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.72		1
12969	2-Methylnaphthalene	91-57-6	0.74	J	1.8	0.72		1
12969	Naphthalene	91-20-3	1.0	J	1.8	0.72		1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.72		1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.5		1
12969	Phenanthrene	85-01-8	1.2	J	1.8	0.72		1
12969	Pyrene	129-00-0	1.0	J	1.8	0.72		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: benzo(e)pyrene							
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2		24.56
Perchlorate	**SW-846 6850 1/2007**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.4	U	5.4	2.3		1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11		1
13099	Aroclor 5442	12642-23-8	35	U	35	11		1
13099	Aroclor 5460	11126-42-4	35	U	35	11		1
13099	PCB-1016	12674-11-2	18	U	18	3.5		1
13099	PCB-1221	11104-28-2	18	U	18	5.4		1
13099	PCB-1232	11141-16-5	18	U	18	4.4		1
13099	PCB-1242	53469-21-9	18	U	18	4.4		1
13099	PCB-1248	12672-29-6	18	U	18	3.5		1
13099	PCB-1254	11097-69-1	18	U	18	4.7		1
13099	PCB-1260	11096-82-5	18	U	18	4.1		1

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Sample Description: SL-605-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482397
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 13:30 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

60550 SDG#: PH207-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
13099	PCB-1262	37324-23-5	18	U	18	3.5		1
13099	PCB-1268	11100-14-4	18	U	18	3.5		1
	For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.							
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.4	U	5.4	2.2		1
12952	EFH (C15-C20)	n.a.	5.4	U	5.4	2.2		1
12952	EFH (C21-C30)	n.a.	8.5		5.4	2.2		1
12952	EFH (C30-C40)	n.a.	14		11	4.3		1
12952	EFH (C8-C11)	n.a.	5.4	U	5.4	2.2		1
13197	EFH C12-C14 w/ SiGel	n.a.	5.4	U	5.4	2.2		1
13197	EFH C15-C20 w/ SiGel	n.a.	5.4	U	5.4	2.2		1
13197	EFH C21-C30 w/ SiGel	n.a.	3.5	J	5.4	2.2		1
13197	EFH C30-C40 w/ SiGel	n.a.	5.0	J	11	4.3		1
13197	EFH C8-C11 w/ SiGel	n.a.	5.4	U	5.4	2.2		1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	20,900		41.9	7.56		1
06944	Antimony	7440-36-0	4.19	U	4.19	0.776		1
06935	Arsenic	7440-38-2	6.62		4.19	0.734		1
06946	Barium	7440-39-3	101		1.05	0.0346		1
06947	Beryllium	7440-41-7	0.935	J	1.05	0.0702		1
07914	Boron	7440-42-8	3.87	J	10.5	0.881		1
06949	Cadmium	7440-43-9	1.05	U	1.05	0.0797		1
01650	Calcium	7440-70-2	4,760		21.0	3.50		1
06951	Chromium	7440-47-3	23.5		3.15	0.168		1
06952	Cobalt	7440-48-4	5.78		1.05	0.104		1
06953	Copper	7440-50-8	18.7		2.10	0.304		1
01654	Iron	7439-89-6	25,900		41.9	3.80		1
06955	Lead	7439-92-1	9.38		3.15	0.524		1
01656	Lithium	7439-93-2	21.3		4.2	0.36		1
01657	Magnesium	7439-95-4	4,790		10.5	1.75		1
06958	Manganese	7439-96-5	268		1.05	0.0870		1
06960	Molybdenum	7439-98-7	2.10	U	2.10	0.178		1
06961	Nickel	7440-02-0	13.0		2.10	0.136		1
10145	Phosphorus	7723-14-0	260		10.5	3.03		1
01662	Potassium	7440-09-7	2,580		105	8.74		1
01667	Sodium	7440-23-5	257		105	17.5		1
06969	Tin	7440-31-5	2.81	J	10.5	0.231		1
06970	Titanium	7440-32-6	1,030		1.05	0.178		1
06971	Vanadium	7440-62-2	47.4		1.05	0.136		1
06972	Zinc	7440-66-6	57.0		4.19	0.210		1
10146	Zirconium	7440-67-7	4.89	J	5.24	0.881		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	

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Sample Description: SL-605-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482397
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 13:30 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

60550 SDG#: PH207-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6020A**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.156 J	0.419	0.105		2
06142	Silver	7440-22-4	0.0312 J	0.210	0.0273		2
06144	Strontium	7440-24-6	28.9	0.419	0.0713		2
06145	Thallium	7440-28-0	0.275	0.210	0.0315		2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0210	0.0171	0.0102		1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**	**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.29	0.0100	0.0100		1
	The pH was measured in water at 22.2 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	7.4	0.10	0.10		1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

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Sample Description: SL-605-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482397
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 13:30 by RR

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CDM Federal Programs Corp.
3201 Jermantown Road
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60550 SDG#: PH207-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0572 JQ	1.07	0.0553		1
11031	12378-PeCDD	40321-76-4	0.0515 JBQ	5.37	0.0347		1
11031	123478-HxCDD	39227-28-6	5.37 U	5.37	0.0336		1
11031	123678-HxCDD	57653-85-7	0.171 JBQ	5.37	0.0332		1
11031	123789-HxCDD	19408-74-3	0.289 JB	5.37	0.0317		1
11031	1234678-HpCDD	35822-46-9	6.56 B	5.37	0.0431		1
11031	OCDD	3268-87-9	52.2 B	10.7	0.0300		1
11031	2378-TCDF	51207-31-9	0.0668 JBQ	1.07	0.0534		1
11031	12378-PeCDF	57117-41-6	0.265 J	5.37	0.0231		1
11031	23478-PeCDF	57117-31-4	0.0966 JBQ	5.37	0.0230		1
11031	123478-HxCDF	70648-26-9	0.111 JBQ	5.37	0.0299		1
11031	123678-HxCDF	57117-44-9	0.120 JB	5.37	0.0275		1
11031	123789-HxCDF	72918-21-9	0.192 JBQ	5.37	0.0321		1
11031	234678-HxCDF	60851-34-5	0.0844 JBQ	5.37	0.0278		1
11031	1234678-HpCDF	67562-39-4	0.769 JB	5.37	0.0166		1
11031	1234789-HpCDF	55673-89-7	0.0963 JB	5.37	0.0279		1
11031	OCDF	39001-02-0	2.40 JB	10.7	0.0438		1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.140				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	91	25 - 181
13C12-123478-HxCDD	86	32 - 141
13C12-123678-HxCDD	88	28 - 130
13C12-123789-HxCDD	90	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	65	17 - 157
13C12-2378-TCDF	79	24 - 169
13C12-12378-PeCDF	99	24 - 185
13C12-23478-PeCDF	97	21 - 178
13C12-123478-HxCDF	81	26 - 152
13C12-123678-HxCDF	89	26 - 123
13C12-234678-HxCDF	85	28 - 136
13C12-123789-HxCDF	83	29 - 147
13C12-1234678-HpCDF	94	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	53	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-605-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482397
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 13:30 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

60550 SDG#: PH207-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Action Limit	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-605-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482397
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 13:30 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

60550 SDG#: PH207-06

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14151SLE026	06/05/2014 08:31	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14151SLE026	06/02/2014 03:30	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14154A16A	06/04/2014 05:44	Laura M Krieger	24.56
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201415034662	05/30/2014 15:14	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201415034662	05/30/2014 15:14	Mitchell R Washel	n.a.
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141550002A	06/05/2014 18:18	Richard A Shober	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141540027A	06/10/2014 01:30	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141540027A	06/04/2014 07:40	Olivia Arosemena	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141550002A	06/05/2014 06:15	Maria Davenport	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540006A	06/05/2014 04:37	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540007A	06/05/2014 21:52	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540007A	06/03/2014 16:35	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540006A	06/03/2014 16:35	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14157002	06/09/2014 22:20	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14157002	06/06/2014 11:25	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1
06944	Antimony	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1
06951	Chromium	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1
06955	Lead	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1
06958	Manganese	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1

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Sample Description: SL-605-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482397
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 13:30 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

60550 SDG#: PH207-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10145	Phosphorus	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1
06970	Titanium	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	141540637001	06/04/2014 23:38	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	141540637001B	06/05/2014 07:05	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141540637001A	06/05/2014 07:05	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141540637001A	06/05/2014 07:05	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141540637001A	06/05/2014 07:05	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638001	06/09/2014 09:41	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141540637001	06/04/2014 08:27	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638001	06/05/2014 10:28	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14150039401A	05/30/2014 20:25	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14156162402A	06/05/2014 19:14	Scott W Freisher	1

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Sample Description: SL-605-SA5C-TR-10.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482398
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 13:45 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

60510 SDG#: PH207-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.73		1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.37		1
12969	Anthracene	120-12-7	1.3	J	1.8	0.37		1
12969	Benzo(a)anthracene	56-55-3	1.0	J	1.8	0.73		1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.73		1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.73		1
12969	Benzo(e)pyrene	192-97-2	19	U	19	3.7		1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.73		1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.73		1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.6		1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.6		1
12969	Chrysene	218-01-9	0.87	J	1.8	0.37		1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.73		1
12969	Diethylphthalate	84-66-2	20	U	20	6.6		1
12969	Dimethylphthalate	131-11-3	20	U	20	6.6		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20	U	20	6.6		1
12969	Fluoranthene	206-44-0	4.1		1.8	0.73		1
12969	Fluorene	86-73-7	0.79	J	1.8	0.73		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.73		1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.73		1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.73		1
12969	Naphthalene	91-20-3	0.80	J	1.8	0.73		1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.73		1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.6		1
12969	Phenanthrene	85-01-8	4.4		1.8	0.73		1
12969	Pyrene	129-00-0	2.8		1.8	0.73		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: benzo(e)pyrene							
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2		23.99
Perchlorate	**SW-846 6850 1/2007**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.5	U	5.5	2.3		1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11		1
13099	Aroclor 5442	12642-23-8	36	U	36	11		1
13099	Aroclor 5460	11126-42-4	36	U	36	11		1
13099	PCB-1016	12674-11-2	18	U	18	3.6		1
13099	PCB-1221	11104-28-2	18	U	18	5.5		1
13099	PCB-1232	11141-16-5	18	U	18	4.4		1
13099	PCB-1242	53469-21-9	18	U	18	4.4		1
13099	PCB-1248	12672-29-6	18	U	18	3.6		1
13099	PCB-1254	11097-69-1	18	U	18	4.8		1
13099	PCB-1260	11096-82-5	18	U	18	4.2		1

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Sample Description: SL-605-SA5C-TR-10.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482398
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 13:45 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

60510 SDG#: PH207-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
13099	PCB-1262	37324-23-5	18	U	18	3.6		1
13099	PCB-1268	11100-14-4	18	U	18	3.6		1
	For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.							
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.5	U	5.5	2.2		1
12952	EFH (C15-C20)	n.a.	5.5	U	5.5	2.2		1
12952	EFH (C21-C30)	n.a.	3.5	J	5.5	2.2		1
12952	EFH (C30-C40)	n.a.	8.4	J	11	4.4		1
12952	EFH (C8-C11)	n.a.	5.5	U	5.5	2.2		1
13197	EFH C12-C14 w/ SiGel	n.a.	5.5	U	5.5	2.2		1
13197	EFH C15-C20 w/ SiGel	n.a.	5.5	U	5.5	2.2		1
13197	EFH C21-C30 w/ SiGel	n.a.	5.5	U	5.5	2.2		1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.4		1
13197	EFH C8-C11 w/ SiGel	n.a.	5.5	U	5.5	2.2		1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	24,200		43.9	7.91		1
06944	Antimony	7440-36-0	4.39	U	4.39	0.812		1
06935	Arsenic	7440-38-2	4.02	J	4.39	0.768		1
06946	Barium	7440-39-3	96.8		1.10	0.0362		1
06947	Beryllium	7440-41-7	0.913	J	1.10	0.0735		1
07914	Boron	7440-42-8	1.48	J	11.0	0.922		1
06949	Cadmium	7440-43-9	1.10	U	1.10	0.0834		1
01650	Calcium	7440-70-2	2,430		22.0	3.67		1
06951	Chromium	7440-47-3	17.5		3.29	0.176		1
06952	Cobalt	7440-48-4	5.06		1.10	0.109		1
06953	Copper	7440-50-8	7.16		2.20	0.318		1
01654	Iron	7439-89-6	19,500		43.9	3.97		1
06955	Lead	7439-92-1	5.06		3.29	0.549		1
01656	Lithium	7439-93-2	23.1		4.4	0.37		1
01657	Magnesium	7439-95-4	4,380		11.0	1.83		1
06958	Manganese	7439-96-5	278		1.10	0.0911		1
06960	Molybdenum	7439-98-7	0.392	J	2.20	0.187		1
06961	Nickel	7440-02-0	10.8		2.20	0.143		1
10145	Phosphorus	7723-14-0	348		11.0	3.17		1
01662	Potassium	7440-09-7	1,980		110	9.15		1
01667	Sodium	7440-23-5	129		110	18.3		1
06969	Tin	7440-31-5	2.96	J	11.0	0.241		1
06970	Titanium	7440-32-6	1,120		1.10	0.187		1
06971	Vanadium	7440-62-2	36.4		1.10	0.143		1
06972	Zinc	7440-66-6	44.6		4.39	0.220		1
10146	Zirconium	7440-67-7	3.48	J	5.49	0.922		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-605-SA5C-TR-10.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482398
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 13:45 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

60510 SDG#: PH207-07

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals		**SW-846 6020A**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium		7782-49-2	0.439 U	0.439	0.110		2
06142	Silver		7440-22-4	0.0374 J	0.220	0.0285		2
06144	Strontium		7440-24-6	19.4	0.439	0.0746		2
06145	Thallium		7440-28-0	0.224	0.220	0.0329		2
		SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A		7439-97-6	0.0643	0.0183	0.0110		1
Wet Chemistry		**SW-846 9045D modified**		**Std. Units**	**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 22.2 C.		n.a.	7.68	0.0100	0.0100		1
Wet Chemistry		**EPA 160.3 modified**		**%**	**%**	**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.		n.a.	8.9	0.10	0.10		1

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Sample Description: SL-605-SA5C-TR-10.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482398
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 13:45 by RR

Submitted: 05/30/2014 09:45
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

60510 SDG#: PH207-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.09	U	1.09	0.0283		1
11031	12378-PeCDD	40321-76-4	0.0292	JBQ	5.45	0.0193		1
11031	123478-HxCDD	39227-28-6	0.0182	JB	5.45	0.0155		1
11031	123678-HxCDD	57653-85-7	0.0534	JBQ	5.45	0.0164		1
11031	123789-HxCDD	19408-74-3	0.0368	JBQ	5.45	0.0157		1
11031	1234678-HpCDD	35822-46-9	0.465	JB	5.45	0.0254		1
11031	OCDD	3268-87-9	5.73	JB	10.9	0.0198		1
11031	2378-TCDF	51207-31-9	0.0243	JBQ	1.09	0.0209		1
11031	12378-PeCDF	57117-41-6	0.125	JQ	5.45	0.0101		1
11031	23478-PeCDF	57117-31-4	0.0263	JB	5.45	0.0100		1
11031	123478-HxCDF	70648-26-9	0.0259	JB	5.45	0.0139		1
11031	123678-HxCDF	57117-44-9	0.0419	JB	5.45	0.0124		1
11031	123789-HxCDF	72918-21-9	0.0596	JBQ	5.45	0.0153		1
11031	234678-HxCDF	60851-34-5	0.0442	JBQ	5.45	0.0125		1
11031	1234678-HpCDF	67562-39-4	0.109	JB	5.45	0.00704		1
11031	1234789-HpCDF	55673-89-7	0.0264	JBQ	5.45	0.0131		1
11031	OCDF	39001-02-0	0.294	JB	10.9	0.0208		1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0240					1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	67	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	88	32 - 141
13C12-123678-HxCDD	90	28 - 130
13C12-123789-HxCDD	88	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	74	17 - 157
13C12-2378-TCDF	63	24 - 169
13C12-12378-PeCDF	84	24 - 185
13C12-23478-PeCDF	78	21 - 178
13C12-123478-HxCDF	82	26 - 152
13C12-123678-HxCDF	91	26 - 123
13C12-234678-HxCDF	84	28 - 136
13C12-123789-HxCDF	80	29 - 147
13C12-1234678-HpCDF	108	28 - 143
13C12-1234789-HpCDF	68	26 - 138
13C12-OCDF	60	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-605-SA5C-TR-10.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482398
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 13:45 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

60510 SDG#: PH207-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Action Limit	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-605-SA5C-TR-10.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482398
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 13:45 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

60510 SDG#: PH207-07

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14151SLE026	06/05/2014 09:03	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14151SLE026	06/02/2014 03:30	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14154A16A	06/04/2014 06:22	Laura M Krieger	23.99
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201415034662	05/30/2014 15:15	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201415034662	05/30/2014 15:15	Mitchell R Washel	n.a.
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141550002A	06/05/2014 18:30	Richard A Shober	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141540027A	06/10/2014 01:48	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141540027A	06/04/2014 07:40	Olivia Arosemena	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141550002A	06/05/2014 06:15	Maria Davenport	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540006A	06/05/2014 04:59	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540007A	06/05/2014 22:14	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540007A	06/03/2014 16:35	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540006A	06/03/2014 16:35	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14157002	06/09/2014 16:22	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14157002	06/06/2014 11:25	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141540637001	06/04/2014 23:42	John W Yanzuk II	1
06944	Antimony	SW-846 6010C	1	141540637001	06/04/2014 23:42	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	141540637001	06/04/2014 23:42	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	141540637001	06/04/2014 23:42	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	141540637001	06/04/2014 23:42	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	141540637001	06/04/2014 23:42	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	141540637001	06/04/2014 23:42	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	141540637001	06/05/2014 12:14	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141540637001	06/04/2014 23:42	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	141540637001	06/04/2014 23:42	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	141540637001	06/04/2014 23:42	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	141540637001	06/04/2014 23:42	John W Yanzuk II	1
06955	Lead	SW-846 6010C	1	141540637001	06/04/2014 23:42	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	141540637001	06/04/2014 23:42	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	141540637001	06/04/2014 23:42	John W Yanzuk II	1
06958	Manganese	SW-846 6010C	1	141540637001	06/04/2014 23:42	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	141540637001	06/04/2014 23:42	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	141540637001	06/04/2014 23:42	John W Yanzuk II	1

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Sample Description: SL-605-SA5C-TR-10.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7482398
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 13:45 by RR

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

60510 SDG#: PH207-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10145	Phosphorus	SW-846 6010C	1	141540637001	06/04/2014 23:42	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	141540637001	06/04/2014 23:42	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	141540637001	06/04/2014 23:42	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	141540637001	06/04/2014 23:42	John W Yanzuk II	1
06970	Titanium	SW-846 6010C	1	141540637001	06/04/2014 23:42	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	141540637001	06/04/2014 23:42	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	141540637001	06/04/2014 23:42	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	141540637001	06/04/2014 23:42	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	141540637001B	06/05/2014 07:08	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141540637001A	06/05/2014 07:08	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141540637001A	06/05/2014 07:08	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141540637001A	06/05/2014 07:08	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638001	06/09/2014 09:43	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141540637001	06/04/2014 08:27	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638001	06/05/2014 10:28	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14150039401A	05/30/2014 20:25	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14156162402A	06/05/2014 19:14	Scott W Freisher	1

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Sample Description: EB1-052914 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7482399
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 15:00 by AP

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB129 SDG#: PH207-08EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	ug/l	
10335	Acetone	67-64-1	20	U	20	6		1
10335	Acrolein	107-02-8	100	U	100	40		1
10335	Acrylonitrile	107-13-1	20	U	20	4		1
10335	t-Amyl methyl ether	994-05-8	1	U	1	0.5		1
10335	Benzene	71-43-2	1	U	1	0.5		1
10335	Bromobenzene	108-86-1	5	U	5	1		1
10335	Bromochloromethane	74-97-5	5	U	5	1		1
10335	Bromodichloromethane	75-27-4	1	U	1	0.5		1
10335	Bromoform	75-25-2	4	U	4	0.5		1
10335	Bromomethane	74-83-9	1	U	1	0.5		1
10335	2-Butanone	78-93-3	10	U	10	3		1
10335	t-Butyl alcohol	75-65-0	50	U	50	5		1
10335	n-Butylbenzene	104-51-8	5	U	5	1		1
10335	sec-Butylbenzene	135-98-8	5	U	5	1		1
10335	tert-Butylbenzene	98-06-6	5	U	5	1		1
10335	Carbon Disulfide	75-15-0	5	U	5	1		1
10335	Carbon Tetrachloride	56-23-5	1	U	1	0.5		1
10335	Chlorobenzene	108-90-7	1	U	1	0.5		1
10335	Chloroethane	75-00-3	1	U	1	0.5		1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2		1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.							
10335	Chloroform	67-66-3	1	U	1	0.5		1
10335	1-Chlorohexane	544-10-5	5	U	5	1		1
10335	Chloromethane	74-87-3	1	U	1	0.5		1
10335	2-Chlorotoluene	95-49-8	5	U	5	1		1
10335	4-Chlorotoluene	106-43-4	5	U	5	1		1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2		1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2		1
10335	Dibromochloromethane	124-48-1	1	U	1	0.5		1
10335	1,2-Dibromoethane	106-93-4	1	U	1	0.5		1
10335	Dibromomethane	74-95-3	1	U	1	0.5		1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1		1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1		1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1		1
10335	Dichlorodifluoromethane	75-71-8	1	U	1	0.5		1
10335	1,1-Dichloroethane	75-34-3	1	U	1	0.5		1
10335	1,2-Dichloroethane	107-06-2	1	U	1	0.5		1
10335	1,1-Dichloroethene	75-35-4	1	U	1	0.5		1
10335	cis-1,2-Dichloroethene	156-59-2	1	U	1	0.5		1
10335	trans-1,2-Dichloroethene	156-60-5	1	U	1	0.5		1
10335	1,2-Dichloropropane	78-87-5	1	U	1	0.5		1
10335	1,3-Dichloropropane	142-28-9	1	U	1	0.5		1
10335	2,2-Dichloropropane	594-20-7	1	U	1	0.5		1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1		1
10335	cis-1,3-Dichloropropene	10061-01-5	1	U	1	0.5		1
10335	trans-1,3-Dichloropropene	10061-02-6	1	U	1	0.5		1
10335	Ethyl t-butyl ether	637-92-3	1	U	1	0.5		1
10335	Ethylbenzene	100-41-4	1	U	1	0.5		1
10335	Freon 113	76-13-1	10	U	10	2		1
10335	Freon 133a	75-88-7	5	U	5	2		1

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Sample Description: EB1-052914 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7482399
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 15:00 by AP

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB129 SDG#: PH207-08EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2		1
10335	2-Hexanone	591-78-6	10	U	10	3		1
10335	di-Isopropyl ether	108-20-3	1	U	1	0.5		1
10335	Isopropylbenzene	98-82-8	5	U	5	1		1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1		1
10335	Methyl Iodide	74-88-4	1	U	1	0.5		1
10335	Methyl Tertiary Butyl Ether	1634-04-4	1	U	1	0.5		1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3		1
10335	Methylene Chloride	75-09-2	5		3	2		1
10335	n-Propylbenzene	103-65-1	5	U	5	1		1
10335	Styrene	100-42-5	5	U	5	1		1
10335	1,1,1,2-Tetrachloroethane	630-20-6	1	U	1	0.5		1
10335	1,1,2,2-Tetrachloroethane	79-34-5	1	U	1	0.5		1
10335	Tetrachloroethene	127-18-4	1	U	1	0.5		1
10335	Toluene	108-88-3	1	U	1	0.5		1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1		1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1		1
10335	1,1,1-Trichloroethane	71-55-6	1	U	1	0.5		1
10335	1,1,2-Trichloroethane	79-00-5	1	U	1	0.5		1
10335	Trichloroethene	79-01-6	1	U	1	0.5		1
10335	Trichlorofluoromethane	75-69-4	1	U	1	0.5		1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1		1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1		1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1		1
10335	Vinyl Acetate	108-05-4	10	U	10	2		1
10335	Vinyl Chloride	75-01-4	1	U	1	0.5		1
10335	m+p-Xylene	179601-23-1	1	U	1	0.5		1
10335	o-Xylene	95-47-6	1	U	1	0.5		1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10461	Acenaphthene	83-32-9	0.5	U	0.5	0.1		1
10461	Acenaphthylene	208-96-8	0.5	U	0.5	0.1		1
10461	Aniline	62-53-3	1	U	1	0.5		1
10461	Anthracene	120-12-7	0.5	U	0.5	0.1		1
10461	Benzidine	92-87-5	61	U	61	20		1
10461	Benzo(a)anthracene	56-55-3	0.5	U	0.5	0.1		1
10461	Benzo(a)pyrene	50-32-8	0.5	U	0.5	0.1		1
10461	Benzo(b)fluoranthene	205-99-2	0.5	U	0.5	0.1		1
10461	Benzo(g,h,i)perylene	191-24-2	0.5	U	0.5	0.1		1
10461	Benzo(k)fluoranthene	207-08-9	0.5	U	0.5	0.1		1
10461	Benzoic acid	65-85-0	15	U	15	6		1
10461	Benzyl alcohol	100-51-6	15	U	15	10		1
10461	1,1'-Biphenyl	92-52-4	1	U	1	0.5		1
10461	4-Bromophenyl-phenylether	101-55-3	1	U	1	0.5		1
10461	Butylbenzylphthalate	85-68-7	5	U	5	2		1
10461	Di-n-butylphthalate	84-74-2	5	U	5	2		1
10461	Carbazole	86-74-8	1	U	1	0.5		1
10461	4-Chloro-3-methylphenol	59-50-7	1	U	1	0.5		1
10461	4-Chloroaniline	106-47-8	1	U	1	0.5		1
10461	bis(2-Chloroethoxy)methane	111-91-1	1	U	1	0.5		1
10461	bis(2-Chloroethyl)ether	111-44-4	1	U	1	0.5		1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB1-052914 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7482399
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 15:00 by AP

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB129 SDG#: PH207-08EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270D			ug/l		ug/l	ug/l	ug/l	
10461	bis(2-Chloroisopropyl)ether	39638-32-9	1	U	1	0.5		1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.							
10461	2-Chloronaphthalene	91-58-7	1	U	1	0.4		1
10461	2-Chlorophenol	95-57-8	1	U	1	0.5		1
10461	4-Chlorophenyl-phenylether	7005-72-3	1	U	1	0.5		1
10461	Chrysene	218-01-9	0.5	U	0.5	0.1		1
10461	Dibenz(a,h)anthracene	53-70-3	0.5	U	0.5	0.1		1
10461	Dibenzofuran	132-64-9	1	U	1	0.5		1
10461	1,2-Dichlorobenzene	95-50-1	1	U	1	0.5		1
10461	1,3-Dichlorobenzene	541-73-1	1	U	1	0.5		1
10461	1,4-Dichlorobenzene	106-46-7	1	U	1	0.5		1
10461	3,3'-Dichlorobenzidine	91-94-1	5	U	5	2		1
10461	2,4-Dichlorophenol	120-83-2	1	U	1	0.5		1
10461	2,6-Dichlorophenol	87-65-0	1	U	1	0.5		1
10461	Diethylphthalate	84-66-2	5	U	5	2		1
10461	2,4-Dimethylphenol	105-67-9	1	U	1	0.5		1
10461	3,5-Dimethylphenol	108-68-9	10	U	10	3		1
10461	Dimethylphthalate	131-11-3	5	U	5	2		1
10461	4,6-Dinitro-2-methylphenol	534-52-1	15	U	15	5		1
10461	2,4-Dinitrophenol	51-28-5	30	U	30	10		1
10461	1,2-Diphenylhydrazine	122-66-7	1	U	1	0.5		1
10461	bis(2-Ethylhexyl)phthalate	117-81-7	5	U	5	2		1
10461	Fluoranthene	206-44-0	0.5	U	0.5	0.1		1
10461	Fluorene	86-73-7	0.5	U	0.5	0.1		1
10461	Hexachlorobenzene	118-74-1	0.5	U	0.5	0.1		1
10461	Hexachlorobutadiene	87-68-3	1	U	1	0.5		1
10461	Hexachlorocyclopentadiene	77-47-4	15	U	15	5		1
10461	Hexachloroethane	67-72-1	5	U	5	1		1
10461	Indeno(1,2,3-cd)pyrene	193-39-5	0.5	U	0.5	0.1		1
10461	Isophorone	78-59-1	1	U	1	0.5		1
10461	1-Methylnaphthalene	90-12-0	0.5	U	0.5	0.1		1
10461	2-Methylnaphthalene	91-57-6	0.5	U	0.5	0.1		1
10461	2-Methylphenol	95-48-7	1	U	1	0.5		1
10461	4-Methylphenol	106-44-5	1	U	1	0.5		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
10461	Naphthalene	91-20-3	0.5	U	0.5	0.1		1
10461	NDPA as diphenylamine	n.a.	5	U	5	2		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10461	2-Nitroaniline	88-74-4	1	U	1	0.5		1
10461	3-Nitroaniline	99-09-2	1	U	1	0.5		1
10461	4-Nitroaniline	100-01-6	1	U	1	0.5		1
10461	Nitrobenzene	98-95-3	1	U	1	0.5		1
10461	2-Nitrophenol	88-75-5	1	U	1	0.5		1
10461	4-Nitrophenol	100-02-7	30	U	30	10		1

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Sample Description: EB1-052914 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7482399
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 15:00 by AP

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB129 SDG#: PH207-08EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		ug/l		ug/l	ug/l	ug/l	
10461	N-Nitrosodimethylamine	62-75-9	5	U	5	2		1
10461	N-Nitroso-di-n-propylamine	621-64-7	1	U	1	0.5		1
10461	N-Nitrosodiphenylamine	86-30-6	1	U	1	0.5		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10461	Di-n-octylphthalate	117-84-0	5	U	5	2		1
10461	Pentachlorophenol	87-86-5	5	U	5	1		1
10461	Phenanthrene	85-01-8	0.5	U	0.5	0.1		1
10461	Phenol	108-95-2	1	U	1	0.5		1
10461	Pyrene	129-00-0	0.5	U	0.5	0.1		1
10461	Pyridine	110-86-1	5	U	5	2		1
10461	1,2,4-Trichlorobenzene	120-82-1	1	U	1	0.5		1
10461	2,4,5-Trichlorophenol	95-95-4	1	U	1	0.5		1
10461	2,4,6-Trichlorophenol	88-06-2	1	U	1	0.5		1
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/l		ug/l	ug/l	ug/l	
12971	Acenaphthene	83-32-9	0.051	U	0.051	0.010		1
12971	Acenaphthylene	208-96-8	0.051	U	0.051	0.010		1
12971	Anthracene	120-12-7	0.051	U	0.051	0.010		1
12971	Benzo(a)anthracene	56-55-3	0.051	U	0.051	0.010		1
12971	Benzo(a)pyrene	50-32-8	0.051	U	0.051	0.010		1
12971	Benzo(b)fluoranthene	205-99-2	0.051	U	0.051	0.010		1
12971	Benzo(e)pyrene	192-97-2	0.051	U	0.051	0.010		1
12971	Benzo(g,h,i)perylene	191-24-2	0.051	U	0.051	0.010		1
12971	Benzo(k)fluoranthene	207-08-9	0.051	U	0.051	0.010		1
12971	Butylbenzylphthalate	85-68-7	1.0	U	1.0	0.051		1
12971	Di-n-butylphthalate	84-74-2	0.13	J	1.0	0.051		1
12971	Chrysene	218-01-9	0.051	U	0.051	0.010		1
12971	Dibenz(a,h)anthracene	53-70-3	0.051	U	0.051	0.010		1
12971	Diethylphthalate	84-66-2	0.057	J	1.0	0.051		1
12971	Dimethylphthalate	131-11-3	1.0	U	1.0	0.051		1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.12	J	1.0	0.051		1
12971	Fluoranthene	206-44-0	0.051	U	0.051	0.010		1
12971	Fluorene	86-73-7	0.051	U	0.051	0.010		1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.051	U	0.051	0.010		1
12971	1-Methylnaphthalene	90-12-0	0.023	J	0.051	0.010		1
12971	2-Methylnaphthalene	91-57-6	0.033	J	0.051	0.010		1
12971	Morpholine	110-91-8	20	U	20	20		1
12971	Naphthalene	91-20-3	0.087		0.051	0.030		1
12971	N-Nitrosodimethylamine	62-75-9	0.051	U	0.051	0.010		1
12971	Di-n-octylphthalate	117-84-0	1.0	U	1.0	0.051		1
12971	Phenanthrene	85-01-8	0.051	U	0.051	0.030		1
12971	Pyrene	129-00-0	0.051	U	0.051	0.010		1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is again outside of the acceptance limits. The data is reported from the initial trial. Similar results were obtained in both trials.

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB1-052914 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7482399
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 15:00 by AP

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB129 SDG#: PH207-08EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
	Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the result is </= 1/2 the LOQ, the data is reported.							
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20		1
Explosives	**SW-846 8330A**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10131	4-Amino-2,6-Dinitrotoluene	19406-51-0	0.60	U	0.60	0.30	10000000	1
10131	2-Amino-4,6-Dinitrotoluene	35572-78-2	0.60	U	0.60	0.20	10000000	1
10131	2,6-Diamino-4-nitrotoluene	59229-75-3	0.60	U	0.60	0.20	10000000	1
10131	2,4-Diamino-6-nitrotoluene	6629-29-4	0.60	U	0.60	0.20	10000000	1
10131	1,3-Dinitrobenzene	99-65-0	0.60	U	0.60	0.20	10000000	1
10131	2,4-Dinitrotoluene	121-14-2	0.60	U	0.60	0.20	10000000	1
10131	2,6-Dinitrotoluene	606-20-2	0.60	U	0.60	0.20	10000000	1
10131	HMX	2691-41-0	2.0	U	2.0	0.65	10000000	1
10131	Nitrobenzene	98-95-3	0.60	U	0.60	0.20	10000000	1
10131	Nitroglycerin	55-63-0	15	U	15	5.2	10000000	1
10131	2-Nitrotoluene	88-72-2	0.60	U	0.60	0.20	10000000	1
10131	3-Nitrotoluene	99-08-1	1.2	U	1.2	0.40	10000000	1
10131	4-Nitrotoluene	99-99-0	1.2	U	1.2	0.60	10000000	1
10131	PETN	78-11-5	18	U	18	6.0	10000000	1
10131	RDX	121-82-4	0.60	U	0.60	0.20	10000000	1
10131	Tetryl	479-45-8	0.60	U	0.60	0.40	10000000	1
10131	1,3,5-Trinitrobenzene	99-35-4	0.60	U	0.60	0.20	10000000	1
10131	2,4,6-Trinitrotoluene	118-96-7	0.60	U	0.60	0.20	10000000	1
Herbicides	**SW-846 8151A**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10407	2,4-D	94-75-7	0.48	U	0.48	0.15		1
10407	Dalapon	75-99-0	1.2	U	1.2	0.24		1
10407	2,4-DB	94-82-6	0.96	U	0.96	0.29		1
10407	Dicamba	1918-00-9	0.29	U	0.29	0.077		1
10407	Dinoseb	88-85-7	0.48	U	0.48	0.12		1

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SSFL Phase 3 Subarea 5C

LL Sample # WW 7482399
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 15:00 by AP

Submitted: 05/30/2014 09:45
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CDM Federal Programs Corp.
3201 Jermantown Road
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EB129 SDG#: PH207-08EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
Herbicides	**SW-846 8151A**		ug/l		ug/l	ug/l	ug/l	
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.							
10407	2,4-DP (Dichlorprop)	120-36-5	0.48	U	0.48	0.15		1
10407	MCPA	94-74-6	190	U	190	48		1
10407	MCPP	93-65-2	190	U	190	48		1
10407	2,4,5-T	93-76-5	0.048	U	0.048	0.014		1
10407	2,4,5-TP	93-72-1	0.048	U	0.048	0.0096		1
Perchlorate	**SW-846 6850 1/2007**		ug/l		ug/l	ug/l	ug/l	
06386	6b Perchlorate (Method 6850)	14797-73-0	1.0	U	1.0	0.20		1
Pesticides/PCBs	**SW-846 8081B**		ug/l		ug/l	ug/l	ug/l	
10589	Aldrin	309-00-2	0.0083	U	0.0083	0.0017		1
10589	Alpha BHC	319-84-6	0.0083	U	0.0083	0.0025		1
10589	Beta BHC	319-85-7	0.0083	U	0.0083	0.0028		1
10589	Gamma BHC - Lindane	58-89-9	0.0083	U	0.0083	0.0017		1
10589	Chlordane	57-74-9	0.42	U	0.42	0.13		1
10589	p,p-DDD	72-54-8	0.017	U	0.017	0.0042		1
10589	p,p-DDE	72-55-9	0.017	U	0.017	0.0042		1
10589	p,p-DDT	50-29-3	0.017	U	0.017	0.0043		1
10589	Delta BHC	319-86-8	0.0083	U	0.0083	0.0028		1
10589	Dieldrin	60-57-1	0.017	U	0.017	0.0044		1
10589	Endosulfan I	959-98-8	0.0083	U	0.0083	0.0036		1
10589	Endosulfan II	33213-65-9	0.017	U	0.017	0.013		1
10589	Endosulfan Sulfate	1031-07-8	0.017	U	0.017	0.0048		1
10589	Endrin	72-20-8	0.017	U	0.017	0.0068		1
10589	Endrin Aldehyde	7421-93-4	0.083	U	0.083	0.017		1
10589	Endrin Ketone	53494-70-5	0.017	U	0.017	0.0042		1
10589	Heptachlor	76-44-8	0.0083	U	0.0083	0.0017		1
10589	Heptachlor Epoxide	1024-57-3	0.0083	U	0.0083	0.0019		1
10589	Methoxychlor	72-43-5	0.083	U	0.083	0.025		1
10589	Mirex	2385-85-5	0.042	U	0.042	0.0083		1
10589	Toxaphene	8001-35-2	0.83	U	0.83	0.25		1
Pesticides/PCBs	**SW-846 8082A**		ug/l		ug/l	ug/l	ug/l	
13092	Aroclor 5432	63496-31-1	0.42	U	0.42	0.083		1
13092	Aroclor 5442	12642-23-8	0.42	U	0.42	0.083		1
13092	Aroclor 5460	11126-42-4	0.42	U	0.42	0.092		1
13092	PCB-1016	12674-11-2	0.42	U	0.42	0.083		1
13092	PCB-1221	11104-28-2	0.42	U	0.42	0.083		1
13092	PCB-1232	11141-16-5	0.42	U	0.42	0.17		1
13092	PCB-1242	53469-21-9	0.42	U	0.42	0.083		1
13092	PCB-1248	12672-29-6	0.42	U	0.42	0.083		1
13092	PCB-1254	11097-69-1	0.42	U	0.42	0.083		1
13092	PCB-1260	11096-82-5	0.42	U	0.42	0.13		1
13092	PCB-1262	37324-23-5	0.42	U	0.42	0.17		1
13092	PCB-1268	11100-14-4	0.42	U	0.42	0.13		1

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Sample Description: EB1-052914 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7482399
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 15:00 by AP

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB129 SDG#: PH207-08EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
12926	Diethylene glycol	111-46-6	10	U	10	8.0		1
12926	Ethylene glycol	107-21-1	10	U	10	8.0		1
12926	Propylene glycol	57-55-6	10	U	10	8.0		1
12926	Triethylene glycol	112-27-6	10	U	10	8.0		1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
10319	m-Terphenyl	92-06-8	0.0048	U	0.0048	0.0019		1
10319	o-Terphenyl	84-15-1	0.0048	U	0.0048	0.0019		1
10319	p-Terphenyl	92-94-4	0.0048	U	0.0048	0.0019		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.095	U	0.095	0.048		1
10365	EFH (C15-C20)	n.a.	0.095	U	0.095	0.048		1
10365	EFH (C21-C30)	n.a.	0.095	U	0.095	0.048		1
10365	EFH (C30 - C40)	n.a.	0.48	U	0.48	0.095		1
10365	EFH (C8-C11)	n.a.	0.095	U	0.095	0.048		1
13205	EFH C12-C14 w/ SiGel	n.a.	0.095	U	0.095	0.048		1
13205	EFH C15-C20 w/ SiGel	n.a.	0.095	U	0.095	0.048		1
13205	EFH C21-C30 w/ SiGel	n.a.	0.095	U	0.095	0.048		1
13205	EFH C30-C40 w/ SiGel	n.a.	0.48	U	0.48	0.095		1
13205	EFH C8-C11 w/ SiGel	n.a.	0.095	U	0.095	0.048		1
	The reverse surrogate, capric acid, is present at <1%.							
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400	U	0.400	0.0828		1
07044	Antimony	7440-36-0	0.0400	U	0.0400	0.0053		1
07035	Arsenic	7440-38-2	0.0400	U	0.0400	0.0068		1
07046	Barium	7440-39-3	0.0100	U	0.0100	0.00033		1
07047	Beryllium	7440-41-7	0.0100	U	0.0100	0.00067		1
08014	Boron	7440-42-8	0.100	U	0.100	0.0084		1
07049	Cadmium	7440-43-9	0.0100	U	0.0100	0.00076		1
01750	Calcium	7440-70-2	0.108	J	0.400	0.0334		1
07051	Chromium	7440-47-3	0.0300	U	0.0300	0.0016		1
07052	Cobalt	7440-48-4	0.0100	U	0.0100	0.0013		1
07053	Copper	7440-50-8	0.0200	U	0.0200	0.0027		1
01754	Iron	7439-89-6	0.400	U	0.400	0.0430		1
07055	Lead	7439-92-1	0.0300	U	0.0300	0.0047		1
01756	Lithium	7439-93-2	0.0400	U	0.0400	0.0047		1
01757	Magnesium	7439-95-4	0.0252	J	0.200	0.0167		1
07058	Manganese	7439-96-5	0.0100	U	0.0100	0.00083		1
07060	Molybdenum	7439-98-7	0.0054	J	0.0200	0.0017		1
07061	Nickel	7440-02-0	0.0200	U	0.0200	0.0015		1
10143	Phosphorus	7723-14-0	0.200	U	0.200	0.0418		1
01762	Potassium	7440-09-7	1.00	U	1.00	0.0980		1
01767	Sodium	7440-23-5	2.00	U	2.00	0.167		1

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Sample Description: EB1-052914 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7482399
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 15:00 by AP

Submitted: 05/30/2014 09:45
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CDM Federal Programs Corp.
3201 Jermantown Road
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EB129 SDG#: PH207-08EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	**mg/l**	
07069	Tin	7440-31-5	0.0400 U	0.0400	0.0029		1
07070	Titanium	7440-32-6	0.0200 U	0.0200	0.0017		1
07071	Vanadium	7440-62-2	0.0100 U	0.0100	0.0020		1
07072	Zinc	7440-66-6	0.0400 U	0.0400	0.0020		1
10144	Zirconium	7440-67-7	0.100 U	0.100	0.0084		1
	SW-846 6020A		**mg/l**	**mg/l**	**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040 U	0.0040	0.00050		1
06042	Silver	7440-22-4	0.0010 U	0.0010	0.00011		1
06044	Strontium	7440-24-6	0.00042 J	0.0020	0.00034		1
06045	Thallium	7440-28-0	0.0010 U	0.0010	0.00015		1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A	7439-97-6	0.00020 U	0.00020	0.000060		1
Wet Chemistry	**SW-846 7199**		**ug/l**	**ug/l**	**ug/l**	**ug/l**	
06467	2b Chromium VI by EPA 7199	18540-29-9	10.0 U	10.0	5.0		1
	SW-846 9040C		**Std. Units**	**Std. Units**	**Std. Units**	**Std. Units**	
12152	28b pH (9040B and 9040C)	n.a.	5.7	0.010	0.010		1

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Sample Description: EB1-052914 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7482399
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

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3201 Jermantown Road
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EB129 SDG#: PH207-08EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	**pg/l**	
10915	2378-TCDD	1746-01-6	1.92	U	1.92	0.431		1
10915	12378-PeCDD	40321-76-4	9.60	U	9.60	0.295		1
10915	123478-HxCDD	39227-28-6	0.293	JQ	9.60	0.179		1
10915	123678-HxCDD	57653-85-7	9.60	U	9.60	0.177		1
10915	123789-HxCDD	19408-74-3	9.60	U	9.60	0.180		1
10915	1234678-HpCDD	35822-46-9	0.642	JBQ	9.60	0.222		1
10915	OCDD	3268-87-9	3.20	JBQ	19.2	0.231		1
10915	2378-TCDF	51207-31-9	1.92	U	1.92	0.283		1
10915	12378-PeCDF	57117-41-6	0.298	JBQ	9.60	0.164		1
10915	23478-PeCDF	57117-31-4	0.216	JQ	9.60	0.150		1
10915	123478-HxCDF	70648-26-9	0.151	JB	9.60	0.137		1
10915	123678-HxCDF	57117-44-9	0.303	JB	9.60	0.134		1
10915	123789-HxCDF	72918-21-9	0.547	JBQ	9.60	0.145		1
10915	234678-HxCDF	60851-34-5	0.224	JB	9.60	0.131		1
10915	1234678-HpCDF	67562-39-4	0.396	JB	9.60	0.0914		1
10915	1234789-HpCDF	55673-89-7	9.60	U	9.60	0.125		1
10915	OCDF	39001-02-0	0.317	JBQ	19.2	0.293		1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	**pg/l**	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	0.0717					1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	63	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	73	23 - 140
13C12-OCDD	65	17 - 157
13C12-2378-TCDF	62	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	76	26 - 152
13C12-123678-HxCDF	78	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	81	29 - 147
13C12-1234678-HpCDF	78	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	63	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB1-052914 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7482399
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 15:00 by AP

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB129 SDG#: PH207-08EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Action Limit	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB1-052914 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7482399
LL Group # 1478251
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Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 15:00 by AP

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Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB129 SDG#: PH207-08EB*

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141551AA	06/04/2014 12:49	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141551AA	06/04/2014 12:49	Sarah A Guill	1
10461	8b SVOCs by EPA 8270D	SW-846 8270D	1	14155WAG026	06/10/2014 15:47	Joseph M Gambler	1
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14155WAH026	06/11/2014 14:49	Chad A Moline	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	14155WAH026	06/05/2014 10:00	William H Saadeh	1
11010	8270D BNA Extraction	SW-846 3510C	1	14155WAG026	06/05/2014 10:00	William H Saadeh	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14150B94A	06/03/2014 14:08	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14150B94A	06/03/2014 14:08	Laura M Krieger	1
10131	18b Energetics by 8330A	SW-846 8330A	1	141550011A	06/06/2014 13:51	James H Place	1
10407	24b Herbicides by EPA 8151A	SW-846 8151A	1	141510002A	06/02/2014 18:33	Melissa McDermott	1
06386	6b Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141540023A	06/04/2014 14:21	Richard A Shober	1
10589	22b Pesticides by EPA 8081B	SW-846 8081B	1	141530009A	06/05/2014 06:23	Jamie L Brillhart	1
13092	21b PCBs and PCTs 8082A	SW-846 8082A	1	141530008A	06/03/2014 13:26	Jessica L Miller	1
13093	PCB/PCT Waters Update IV	SW-846 3510C	1	141530008A	06/02/2014 16:30	Seth A Farrier	1
11120	Pesticide Waters Update IV Ext	SW-846 3510C	1	141530009A	06/02/2014 16:30	Seth A Farrier	1
00816	Water Sample Herbicide Extract	SW-846 8151A	1	141510002A	06/01/2014 14:30	David V Hershey Jr	1
11122	Energetics Extraction	SW-846 8330	1	141550011A	06/05/2014 12:15	Edwin Ortiz	1
12926	20b Glycols by EPA 8015C	SW-846 8015C Feb 2007 Rev 3	1	141550025A	06/04/2014 18:59	Tyler O Griffin	1
10319	23b Terphenyls by 8015B	SW-846 8015B	1	141540005A	06/04/2014 16:25	Glorines Suarez-Rivera	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141550009A	06/05/2014 18:38	Heather E Williams	1
13205	10b TPH-DRO (w/Si Gel)	SW-846 8015B modified	1	141550010A	06/05/2014 20:04	Heather E Williams	1
13212	EFH Water Ext. w/SiGel	SW-846 3510C	1	141550010A	06/04/2014 22:00	Elaine F Stoltzfus	1
11203	EFH Waters Extraction	SW-846 3510C	1	141550009A	06/04/2014 22:00	Elaine F Stoltzfus	1
10304	Terphenyls water prep	SW-846 3510C	1	141540005A	06/03/2014 06:15	Kelli M Barto	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14156001	06/06/2014 17:28	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B October 1994	1	14156001	06/05/2014 10:10	Brett M Weidman	1

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Sample Description: EB1-052914 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7482399
LL Group # 1478251
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/29/2014 15:00 by AP

Submitted: 05/30/2014 09:45
Reported: 06/25/2014 16:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB129 SDG#: PH207-08EB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01743	Aluminum	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
07044	Antimony	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
07046	Barium	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
07047	Beryllium	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
08014	Boron	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
01750	Calcium	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
07051	Chromium	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
07052	Cobalt	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
07053	Copper	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
01754	Iron	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
07055	Lead	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
01756	Lithium	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
07058	Manganese	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
07060	Molybdenum	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
07061	Nickel	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
10143	Phosphorus	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
01762	Potassium	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
01767	Sodium	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
07069	Tin	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
07070	Titanium	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
07072	Zinc	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
10144	Zirconium	SW-846 6010C	1	141550635001	06/05/2014 18:22	Katlin N Cataldi	1
06041	Selenium	SW-846 6020A	1	141550639001B	06/05/2014 17:56	John P Hook	1
06042	Silver	SW-846 6020A	1	141550639001A	06/05/2014 17:56	John P Hook	1
06044	Strontium	SW-846 6020A	1	141550639001A	06/05/2014 17:56	John P Hook	1
06045	Thallium	SW-846 6020A	1	141550639001A	06/05/2014 17:56	John P Hook	1
00259	3b Mercury 7470A	SW-846 7470A	1	141545713001	06/05/2014 16:10	Parker D Lindstrom	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	141550635001	06/05/2014 09:49	Micaela L Dishong	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	141550639001	06/05/2014 09:00	Micaela L Dishong	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	141545713001	06/04/2014 01:30	Annamaria Kuhns	1
06467	2b Chromium VI by EPA 7199	SW-846 7199	1	14150987301A	05/30/2014 13:19	Clinton M Wilson	1
12152	28b pH (9040B and 9040C)	SW-846 9040C	1	14150121521A	05/30/2014 19:50	Luz M Groff	1

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478251
Reported: 06/25/14 at 04:54 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: Y141551AA	Sample number(s): 7482399								
Acetone	20 U	20.	6	ug/l	89	88	43-149	1	30
Acrolein	100 U	100.	40	ug/l	76	76	52-129	1	30
Acrylonitrile	20 U	20.	4	ug/l	94	94	62-120	0	30
t-Amyl methyl ether	1 U	1.	0.5	ug/l	91	93	75-120	2	30
Benzene	1 U	1.	0.5	ug/l	93	95	78-120	2	30
Bromobenzene	5 U	5.	1	ug/l	95	97	80-120	3	30
Bromochloromethane	5 U	5.	1	ug/l	95	96	80-121	1	30
Bromodichloromethane	1 U	1.	0.5	ug/l	93	94	73-120	1	30
Bromoform	4 U	4.	0.5	ug/l	89	87	61-120	2	30
Bromomethane	1 U	1.	0.5	ug/l	97	98	58-120	1	30
2-Butanone	10 U	10.	3	ug/l	86	88	54-133	2	30
t-Butyl alcohol	50 U	50.	5	ug/l	96	95	75-120	1	30
n-Butylbenzene	5 U	5.	1	ug/l	88	90	68-120	3	30
sec-Butylbenzene	5 U	5.	1	ug/l	91	93	80-120	2	30
tert-Butylbenzene	5 U	5.	1	ug/l	91	93	73-120	2	30
Carbon Disulfide	5 U	5.	1	ug/l	89	89	58-126	0	30
Carbon Tetrachloride	1 U	1.	0.5	ug/l	101	104	74-130	2	30
Chlorobenzene	1 U	1.	0.5	ug/l	95	96	80-120	2	30
Chloroethane	1 U	1.	0.5	ug/l	90	93	56-120	3	30
2-Chloroethyl Vinyl Ether	10 U	10.	2	ug/l	101	103	54-126	2	30
Chloroform	1 U	1.	0.5	ug/l	98	100	80-122	3	30
1-Chlorohexane	5 U	5.	1	ug/l	96	99	80-120	3	30
Chloromethane	1 U	1.	0.5	ug/l	103	106	63-120	3	30
2-Chlorotoluene	5 U	5.	1	ug/l	90	93	80-120	3	30
4-Chlorotoluene	5 U	5.	1	ug/l	89	93	80-120	5	30
Chlorotrifluoroethene	5 U	5.	2	ug/l	71	69	47-120	3	30
1,2-Dibromo-3-chloropropane	5 U	5.	2	ug/l	85	85	56-120	0	30
Dibromochloromethane	1 U	1.	0.5	ug/l	95	94	72-120	1	30
1,2-Dibromoethane	1 U	1.	0.5	ug/l	97	97	76-120	0	30
Dibromomethane	1 U	1.	0.5	ug/l	93	93	80-120	0	30
1,2-Dichlorobenzene	5 U	5.	1	ug/l	92	95	80-120	3	30
1,3-Dichlorobenzene	5 U	5.	1	ug/l	92	95	80-120	3	30
1,4-Dichlorobenzene	5 U	5.	1	ug/l	94	95	80-120	1	30
Dichlorodifluoromethane	1 U	1.	0.5	ug/l	94	96	48-132	3	30
1,1-Dichloroethane	1 U	1.	0.5	ug/l	92	94	80-120	3	30
1,2-Dichloroethane	1 U	1.	0.5	ug/l	98	99	65-135	1	30
1,1-Dichloroethene	1 U	1.	0.5	ug/l	108	109	76-124	1	30
cis-1,2-Dichloroethene	1 U	1.	0.5	ug/l	96	98	80-120	2	30
trans-1,2-Dichloroethene	1 U	1.	0.5	ug/l	108	113	80-120	4	30
1,2-Dichloropropane	1 U	1.	0.5	ug/l	87	91	80-120	4	30
1,3-Dichloropropane	1 U	1.	0.5	ug/l	90	90	80-120	1	30
2,2-Dichloropropane	1 U	1.	0.5	ug/l	99	99	67-124	1	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478251
Reported: 06/25/14 at 04:54 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/l	98	102	80-120	3	30
cis-1,3-Dichloropropene	1	U	1.	0.5	ug/l	90	91	80-120	2	30
trans-1,3-Dichloropropene	1	U	1.	0.5	ug/l	91	91	76-120	0	30
Ethyl t-butyl ether	1	U	1.	0.5	ug/l	91	93	74-120	2	30
Ethylbenzene	1	U	1.	0.5	ug/l	93	94	79-120	1	30
Freon 113	10	U	10.	2	ug/l	98	97	67-127	1	30
Freon 133a	5	U	5.	2	ug/l	104	101	46-152	3	30
Hexachlorobutadiene	5	U	5.	2	ug/l	89	92	51-125	3	30
2-Hexanone	10	U	10.	3	ug/l	84	86	44-126	2	30
di-Isopropyl ether	1	U	1.	0.5	ug/l	89	92	65-120	3	30
Isopropylbenzene	5	U	5.	1	ug/l	95	95	77-120	0	30
p-Isopropyltoluene	5	U	5.	1	ug/l	89	92	80-120	3	30
Methyl Iodide	1	U	1.	0.5	ug/l	107	108	75-128	0	30
Methyl Tertiary Butyl Ether	1	U	1.	0.5	ug/l	104	105	75-120	1	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	86	88	51-124	3	30
Methylene Chloride	3	U	3.	2	ug/l	106	107	80-120	0	30
n-Propylbenzene	5	U	5.	1	ug/l	90	92	80-120	3	30
Styrene	5	U	5.	1	ug/l	94	95	80-120	2	30
1,1,1,2-Tetrachloroethane	1	U	1.	0.5	ug/l	96	97	80-120	1	30
1,1,2,2-Tetrachloroethane	1	U	1.	0.5	ug/l	86	87	70-120	2	30
Tetrachloroethene	1	U	1.	0.5	ug/l	100	101	80-120	1	30
Toluene	1	U	1.	0.5	ug/l	94	95	80-120	1	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	91	91	58-126	0	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	93	93	65-120	0	30
1,1,1-Trichloroethane	1	U	1.	0.5	ug/l	91	94	66-126	3	30
1,1,2-Trichloroethane	1	U	1.	0.5	ug/l	92	92	80-120	1	30
Trichloroethene	1	U	1.	0.5	ug/l	98	99	80-120	1	30
Trichlorofluoromethane	1	U	1.	0.5	ug/l	102	102	65-130	0	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	91	94	76-120	3	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	93	95	74-120	2	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	93	95	74-120	3	30
Vinyl Acetate	10	U	10.	2	ug/l	74	73	56-135	2	30
Vinyl Chloride	1	U	1.	0.5	ug/l	97	98	63-120	1	30
m+p-Xylene	1	U	1.	0.5	ug/l	93	95	80-120	2	30
o-Xylene	1	U	1.	0.5	ug/l	93	94	80-120	2	30

Batch number: 14151SLE026 Sample number(s): 7482392-7482394,7482396-7482398

Acenaphthene	1.7	U	1.7	0.67	ug/kg	104	84-118
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	98	78-120
Anthracene	1.7	U	1.7	0.33	ug/kg	107	85-118
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	103	83-119
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	88	80-122
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	104	82-135
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	79*	81-110
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	97	79-121
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	81	79-123
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	101	75-144
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	104	75-148
Chrysene	1.7	U	1.7	0.33	ug/kg	93	84-113
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	103	83-123
Diethylphthalate	18	U	18.	6.0	ug/kg	90	73-147
Dimethylphthalate	18	U	18.	6.0	ug/kg	86	85-122
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	101	68-146
Fluoranthene	1.7	U	1.7	0.67	ug/kg	101	85-116
Fluorene	1.7	U	1.7	0.67	ug/kg	88	84-120
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	98	82-123

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478251
Reported: 06/25/14 at 04:54 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	94		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	100		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	95		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	91		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	100		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	101		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	96		80-119		
Batch number: 14155WAG026	Sample number(s): 7482399									
Acenaphthene	0.5	U	0.5	0.1	ug/l	99	98	80-112	1	30
Acenaphthylene	0.5	U	0.5	0.1	ug/l	105	104	84-125	1	30
Aniline	1	U	1.	0.5	ug/l	90	84	43-94	7	30
Anthracene	0.5	U	0.5	0.1	ug/l	103	106	82-116	2	30
Benzidine	60	U	60.	20	ug/l	67	65	20-94	3	30
Benzo(a)anthracene	0.5	U	0.5	0.1	ug/l	112	111	81-126	1	30
Benzo(a)pyrene	0.5	U	0.5	0.1	ug/l	107	106	82-116	1	30
Benzo(b)fluoranthene	0.5	U	0.5	0.1	ug/l	106	106	82-121	0	30
Benzo(g,h,i)perylene	0.5	U	0.5	0.1	ug/l	107	106	76-128	0	30
Benzo(k)fluoranthene	0.5	U	0.5	0.1	ug/l	108	107	81-122	0	30
Benzoic acid	15	U	15.	6	ug/l	98*	44	10-97	76*	30
Benzyl alcohol	15	U	15.	10	ug/l	98	96	66-112	2	30
1,1'-Biphenyl	1	U	1.	0.5	ug/l	94	93	78-109	1	30
4-Bromophenyl-phenylether	1	U	1.	0.5	ug/l	103	105	82-118	2	30
Butylbenzylphthalate	5	U	5.	2	ug/l	107	107	79-119	0	30
Di-n-butylphthalate	5	U	5.	2	ug/l	106	107	80-119	1	30
Carbazole	1	U	1.	0.5	ug/l	104	107	84-117	3	30
4-Chloro-3-methylphenol	1	U	1.	0.5	ug/l	107	108	80-123	1	30
4-Chloroaniline	1	U	1.	0.5	ug/l	97	93	55-113	4	30
bis(2-Chloroethoxy)methane	1	U	1.	0.5	ug/l	103	102	77-115	0	30
bis(2-Chloroethyl)ether	1	U	1.	0.5	ug/l	101	102	78-112	1	30
bis(2-Chloroisopropyl)ether	1	U	1.	0.5	ug/l	105	106	56-119	2	30
2-Chloronaphthalene	1	U	1.	0.4	ug/l	96	95	71-120	0	30
2-Chlorophenol	1	U	1.	0.5	ug/l	100	100	76-111	0	30
4-Chlorophenyl-phenylether	1	U	1.	0.5	ug/l	102	100	77-114	1	30
Chrysene	0.5	U	0.5	0.1	ug/l	111	110	81-120	1	30
Dibenz(a,h)anthracene	0.5	U	0.5	0.1	ug/l	111	111	83-124	0	30
Dibenzofuran	1	U	1.	0.5	ug/l	99	98	81-110	1	30
1,2-Dichlorobenzene	1	U	1.	0.5	ug/l	91	88	69-107	4	30
1,3-Dichlorobenzene	1	U	1.	0.5	ug/l	86	83	69-107	4	30
1,4-Dichlorobenzene	1	U	1.	0.5	ug/l	88	85	66-111	4	30
3,3'-Dichlorobenzidine	5	U	5.	2	ug/l	78	74	47-108	5	30
2,4-Dichlorophenol	1	U	1.	0.5	ug/l	103	104	84-119	1	30
2,6-Dichlorophenol	1	U	1.	0.5	ug/l	107	102	80-116	5	30
Diethylphthalate	5	U	5.	2	ug/l	99	98	70-118	2	30
2,4-Dimethylphenol	1	U	1.	0.5	ug/l	100	100	81-114	0	30
3,5-Dimethylphenol	10	U	10.	3	ug/l	110	108	70-130	1	30
Dimethylphthalate	5	U	5.	2	ug/l	92	89	43-128	4	30
4,6-Dinitro-2-methylphenol	15	U	15.	5	ug/l	102	111	56-145	9	30
2,4-Dinitrophenol	30	U	30.	10	ug/l	88	94	32-148	7	30
1,2-Diphenylhydrazine	1	U	1.	0.5	ug/l	106	105	74-124	0	30
bis(2-Ethylhexyl)phthalate	5	U	5.	2	ug/l	110	121	78-124	10	30
Fluoranthene	0.5	U	0.5	0.1	ug/l	107	108	82-121	2	30
Fluorene	0.5	U	0.5	0.1	ug/l	102	102	80-117	0	30
Hexachlorobenzene	0.5	U	0.5	0.1	ug/l	98	99	80-119	1	30
Hexachlorobutadiene	1	U	1.	0.5	ug/l	78	68	61-120	13	30
Hexachlorocyclopentadiene	15	U	15.	5	ug/l	70	68	28-133	3	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478251
Reported: 06/25/14 at 04:54 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Hexachloroethane	5	U	5.	1	ug/l	78	70	55-109	11	30
Indeno(1,2,3-cd)pyrene	0.5	U	0.5	0.1	ug/l	108	107	80-126	0	30
Isophorone	1	U	1.	0.5	ug/l	111	112	82-119	1	30
1-Methylnaphthalene	0.5	U	0.5	0.1	ug/l	100	96	83-116	4	30
2-Methylnaphthalene	0.5	U	0.5	0.1	ug/l	94	91	75-106	4	30
2-Methylphenol	1	U	1.	0.5	ug/l	102	101	72-111	1	30
4-Methylphenol	1	U	1.	0.5	ug/l	98	95	63-110	3	30
Naphthalene	0.5	U	0.5	0.1	ug/l	97	95	75-108	2	30
NDPA as diphenylamine	5	U	5.	2	ug/l	100	102	70-130	2	30
2-Nitroaniline	1	U	1.	0.5	ug/l	98	100	84-122	2	30
3-Nitroaniline	1	U	1.	0.5	ug/l	104	105	70-118	0	30
4-Nitroaniline	1	U	1.	0.5	ug/l	86	86	66-110	0	30
Nitrobenzene	1	U	1.	0.5	ug/l	104	104	77-119	0	30
2-Nitrophenol	1	U	1.	0.5	ug/l	109	111	81-128	2	30
4-Nitrophenol	30	U	30.	10	ug/l	67	68	25-95	2	30
N-Nitroso-di-n-propylamine	1	U	1.	0.5	ug/l	104	106	71-117	2	30
N-Nitrosodimethylamine	5	U	5.	2	ug/l	84	79	38-98	6	30
N-Nitrosodiphenylamine	1	U	1.	0.5	ug/l	100	102	80-115	2	30
Di-n-octylphthalate	5	U	5.	2	ug/l	119	117	78-129	1	30
Pentachlorophenol	5	U	5.	1	ug/l	115	119	54-124	4	30
Phenanthrene	0.5	U	0.5	0.1	ug/l	99	101	81-114	2	30
Phenol	1	U	1.	0.5	ug/l	63	60	31-79	6	30
Pyrene	0.5	U	0.5	0.1	ug/l	98	97	81-112	0	30
Pyridine	5	U	5.	2	ug/l	83	74	22-96	12	30
1,2,4-Trichlorobenzene	1	U	1.	0.5	ug/l	92	86	77-111	6	30
2,4,5-Trichlorophenol	1	U	1.	0.5	ug/l	106	107	81-121	1	30
2,4,6-Trichlorophenol	1	U	1.	0.5	ug/l	107	109	84-119	2	30
Batch number: 14155WAH026	Sample number(s): 7482399									
Acenaphthene	0.050	U	0.050	0.010	ug/l	108	95	83-119	12	30
Acenaphthylene	0.050	U	0.050	0.010	ug/l	102	90	81-130	13	30
Anthracene	0.050	U	0.050	0.010	ug/l	104	93	83-125	12	30
Benzo(a)anthracene	0.050	U	0.050	0.010	ug/l	104	97	79-122	7	30
Benzo(a)pyrene	0.050	U	0.050	0.010	ug/l	103	93	80-121	11	30
Benzo(b)fluoranthene	0.050	U	0.050	0.010	ug/l	109	100	79-136	9	30
Benzo(e)pyrene	0.050	U	0.050	0.010	ug/l	102	95	67-118	8	30
Benzo(g,h,i)perylene	0.050	U	0.050	0.010	ug/l	104	94	72-132	10	30
Benzo(k)fluoranthene	0.050	U	0.050	0.010	ug/l	109	96	81-131	13	30
Butylbenzylphthalate	1.0	U	1.0	0.050	ug/l	86	77	40-138	11	30
Di-n-butylphthalate	0.073	J	1.0	0.050	ug/l	106	98	64-141	7	30
Chrysene	0.050	U	0.050	0.010	ug/l	107	96	84-118	11	30
Dibenz(a,h)anthracene	0.050	U	0.050	0.010	ug/l	101	90	66-133	12	30
Diethylphthalate	1.0	U	1.0	0.050	ug/l	101	91	64-137	11	30
Dimethylphthalate	1.0	U	1.0	0.050	ug/l	85	72	23-139	16	30
Bis(2-Ethylhexyl)phthalate	0.38	J	1.0	0.050	ug/l	87	182*	70-143	71*	30
Fluoranthene	0.050	U	0.050	0.010	ug/l	107	96	84-124	11	30
Fluorene	0.050	U	0.050	0.010	ug/l	107	94	82-119	12	30
Indeno(1,2,3-cd)pyrene	0.050	U	0.050	0.010	ug/l	100	89	68-132	11	30
1-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	96	87	86-130	10	30
2-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	91	83	81-131	9	30
Morpholine	20	U	20.	20	ug/l					
Naphthalene	0.050	U	0.050	0.030	ug/l	94	86	82-122	9	30
N-Nitrosodimethylamine	0.050	U	0.050	0.010	ug/l	75	67	56-96	12	30
Di-n-octylphthalate	1.0	U	1.0	0.050	ug/l	80	70	57-145	14	30
Phenanthrene	0.050	U	0.050	0.030	ug/l	104	93	83-116	11	30
Pyrene	0.050	U	0.050	0.010	ug/l	102	93	78-125	9	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478251
Reported: 06/25/14 at 04:54 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14150B94A	Sample number(s): 7482395,7482399								
TPH-GRO S.CA water C5-C12	50 U	50.	20	ug/l	97	92	80-133	6	30
Batch number: 14154A16A	Sample number(s): 7482393-7482394,7482397-7482398								
11a TPH by EPA 8015B GRO	1.0 U	1.0	0.2	mg/kg	77		67-120		
Batch number: 141550011A	Sample number(s): 7482399								
4-Amino-2,6-Dinitrotoluene	0.60 U	0.60	0.30	ug/l	100	103	80-148	3	30
2-Amino-4,6-Dinitrotoluene	0.60 U	0.60	0.20	ug/l	90	92	77-115	2	30
2,6-Diamino-4-nitrotoluene	0.60 U	0.60	0.20	ug/l	90	88	73-121	2	30
2,4-Diamino-6-nitrotoluene	0.60 U	0.60	0.20	ug/l	88	87	72-119	2	30
1,3-Dinitrobenzene	0.60 U	0.60	0.20	ug/l	97	97	85-117	1	30
2,4-Dinitrotoluene	0.60 U	0.60	0.20	ug/l	97	101	83-115	4	30
2,6-Dinitrotoluene	0.60 U	0.60	0.20	ug/l	94	98	77-145	4	30
HMX	2.0 U	2.0	0.65	ug/l	106	108	67-115	2	30
Nitrobenzene	0.60 U	0.60	0.20	ug/l	93	96	80-115	3	30
Nitroglycerin	15 U	15.	5.2	ug/l	91	93	81-115	2	30
2-Nitrotoluene	0.60 U	0.60	0.20	ug/l	94	100	74-115	6	30
3-Nitrotoluene	1.2 U	1.2	0.40	ug/l	101	108	83-118	7	30
4-Nitrotoluene	1.2 U	1.2	0.60	ug/l	94	102	76-120	8	30
PETN	18 U	18.	6.0	ug/l	98	105	81-115	7	30
RDX	0.60 U	0.60	0.20	ug/l	94	91	76-120	4	30
Tetryl	0.60 U	0.60	0.40	ug/l	81	84	47-150	3	30
1,3,5-Trinitrobenzene	0.60 U	0.60	0.20	ug/l	156*	153*	83-115	2	30
2,4,6-Trinitrotoluene	0.60 U	0.60	0.20	ug/l	93	96	84-117	3	30
Batch number: 141510002A	Sample number(s): 7482399								
2,4-D	0.50 U	0.50	0.16	ug/l	147	149	68-155	1	30
Dalapon	1.3 U	1.3	0.25	ug/l	60	57	27-127	6	30
2,4-DB	1.0 U	1.0	0.30	ug/l	131	134	60-172	2	30
Dicamba	0.30 U	0.30	0.080	ug/l	178*	120	65-142	39*	30
Dinoseb	0.50 U	0.50	0.12	ug/l	71	66	16-163	7	30
2,4-DP (Dichlorprop)	0.50 U	0.50	0.16	ug/l	176	173	91-181	2	30
MCPA	200 U	200.	50	ug/l	136*	137*	65-128	1	30
MCPP	200 U	200.	50	ug/l	136	132	61-145	3	30
2,4,5-T	0.050 U	0.050	0.015	ug/l	148	146	67-163	1	30
2,4,5-TP	0.050 U	0.050	0.010	ug/l	140	138	71-162	1	30
Batch number: 141540023A	Sample number(s): 7482399								
6b Perchlorate (Method 6850)	1.0 U	1.0	0.20	ug/l	109		85-115		
Batch number: 141550002A	Sample number(s): 7482392-7482394,7482396-7482398								
6a Perchlorate (Method 6850)	5.0 U	5.0	2.1	ug/kg	102		85-115		
Batch number: 141530008A	Sample number(s): 7482399								
Aroclor 5432	0.40 U	0.40	0.080	ug/l					
Aroclor 5442	0.40 U	0.40	0.080	ug/l	69	59	34-115	15	30
Aroclor 5460	0.40 U	0.40	0.088	ug/l					
PCB-1016	0.40 U	0.40	0.080	ug/l	85	93	60-117	9	30
PCB-1221	0.40 U	0.40	0.080	ug/l					
PCB-1232	0.40 U	0.40	0.16	ug/l					
PCB-1242	0.40 U	0.40	0.080	ug/l					
PCB-1248	0.40 U	0.40	0.080	ug/l					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478251
Reported: 06/25/14 at 04:54 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1254	0.40	U	0.40	0.080	ug/l					
PCB-1260	0.40	U	0.40	0.12	ug/l	83	103	67-128	21	30
PCB-1262	0.40	U	0.40	0.16	ug/l					
PCB-1268	0.40	U	0.40	0.13	ug/l					
Batch number: 141530009A	Sample number(s): 7482399									
Aldrin	0.0080	U	0.0080	0.0016	ug/l	87	80	37-137	8	30
Alpha BHC	0.0080	U	0.0080	0.0024	ug/l	101	95	44-148	6	30
Beta BHC	0.0080	U	0.0080	0.0027	ug/l	94	90	48-147	4	30
Gamma BHC - Lindane	0.0080	U	0.0080	0.0016	ug/l	99	96	44-146	4	30
Chlordane	0.40	U	0.40	0.13	ug/l					
p,p-DDD	0.0046	J	0.016	0.0040	ug/l	96	88	44-152	9	30
p,p-DDE	0.016	U	0.016	0.0040	ug/l	98	86	44-146	12	30
p,p-DDT	0.016	U	0.016	0.0042	ug/l	98	92	44-146	6	30
Delta BHC	0.0080	U	0.0080	0.0027	ug/l	103	99	47-146	5	30
Dieldrin	0.016	U	0.016	0.0042	ug/l	98	93	45-146	5	30
Endosulfan I	0.0080	U	0.0080	0.0034	ug/l	86	84	39-140	2	30
Endosulfan II	0.016	U	0.016	0.012	ug/l	94	91	45-139	4	30
Endosulfan Sulfate	0.016	U	0.016	0.0046	ug/l	96	93	48-139	3	30
Endrin	0.016	U	0.016	0.0065	ug/l	89	79	43-139	12	30
Endrin Aldehyde	0.080	U	0.080	0.016	ug/l	89	89	43-144	0	20
Endrin Ketone	0.016	U	0.016	0.0040	ug/l	95	95	42-152	0	30
Heptachlor	0.0080	U	0.0080	0.0016	ug/l	88	82	36-146	8	30
Heptachlor Epoxide	0.0080	U	0.0080	0.0018	ug/l	97	93	49-142	4	30
Methoxychlor	0.080	U	0.080	0.024	ug/l	99	91	40-150	8	30
Mirex	0.040	U	0.040	0.0080	ug/l					
Toxaphene	0.80	U	0.80	0.24	ug/l					
Batch number: 141540027A	Sample number(s): 7482392-7482394,7482396-7482398									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	96	97	36-106	1	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	116		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	125		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141550025A	Sample number(s): 7482399									
Diethylene glycol	10	U	10.	8.0	mg/l	109		46-143		
Ethylene glycol	10	U	10.	8.0	mg/l	116		63-128		
Propylene glycol	10	U	10.	8.0	mg/l	124		62-136		
Triethylene glycol	10	U	10.	8.0	mg/l	96		31-136		
Batch number: 141540005A	Sample number(s): 7482399									
m-Terphenyl	0.0050	U	0.0050	0.0020	mg/l	86	97	61-108	12	20
o-Terphenyl	0.0050	U	0.0050	0.0020	mg/l	85	95	75-125	11	20
p-Terphenyl	0.0050	U	0.0050	0.0020	mg/l	80	89	63-110	11	20
Batch number: 141540006A	Sample number(s): 7482392-7482394,7482396-7482398									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	89		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	91		78-127		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478251
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Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	93		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	87		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	80		60-115		
Batch number: 141540007A	Sample number(s): 7482392-7482394,7482396-7482398									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	66*		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	68*		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	68*		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	54		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	54*		60-115		
Batch number: 141550009A	Sample number(s): 7482399									
EFH (C12-C14)	0.10	U	0.10	0.050	mg/l	84	87	67-109	4	30
EFH (C15-C20)	0.10	U	0.10	0.050	mg/l	89	93	71-119	4	30
EFH (C21-C30)	0.10	U	0.10	0.050	mg/l	88	92	75-117	5	30
EFH (C30 - C40)	0.50	U	0.50	0.10	mg/l	55	62	44-134	13	30
EFH (C8-C11)	0.10	U	0.10	0.050	mg/l	64	68	55-86	5	30
Batch number: 141550010A	Sample number(s): 7482399									
EFH C12-C14 w/ SiGel	0.10	U	0.10	0.050	mg/l	72	76	67-109	5	30
EFH C15-C20 w/ SiGel	0.10	U	0.10	0.050	mg/l	77	81	71-119	5	30
EFH C21-C30 w/ SiGel	0.10	U	0.10	0.050	mg/l	77	81	75-117	5	30
EFH C30-C40 w/ SiGel	0.50	U	0.50	0.10	mg/l	48	62	44-134	25	30
EFH C8-C11 w/ SiGel	0.10	U	0.10	0.050	mg/l	50*	52*	55-86	5	30
Batch number: 141540637001	Sample number(s): 7482392-7482394,7482396-7482398									
Aluminum	40.0	U	40.0	7.21	mg/kg	105		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	106		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	105		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	105		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	106		80-120		
Boron	10.0	U	10.0	0.840	mg/kg	99		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	106		80-120		
Calcium	9.64	J	20.0	3.34	mg/kg	104		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	105		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	106		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	107		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	105		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	107		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	104		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	102		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	104		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	109		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	106		80-120		
Potassium	100 U		100.	8.34	mg/kg	103		80-120		
Sodium	100 U		100.	16.7	mg/kg	101		80-120		
Tin	1.45	J	10.0	0.220	mg/kg	103		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	105		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	108		80-120		
Zinc	4.00	U	4.00	0.200	mg/kg	104		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	106		80-120		
Batch number: 141540637001A	Sample number(s): 7482392-7482394,7482396-7482398									

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478251
Reported: 06/25/14 at 04:54 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Silver	0.200 U	0.200	0.0260	mg/kg	111		80-120		
Strontium	0.400 U	0.400	0.0680	mg/kg	113		80-120		
Thallium	0.200 U	0.200	0.0300	mg/kg	112		80-120		
Batch number: 141540637001B	Sample number(s): 7482392-7482394,7482396-7482398								
Selenium	0.400 U	0.400	0.100	mg/kg	107		80-120		
Batch number: 141540638001	Sample number(s): 7482392-7482394,7482396-7482398								
3a Mercury 7471A	0.0167 U	0.0167	0.0100	mg/kg	99		85-120		
Batch number: 141545713001	Sample number(s): 7482399								
3b Mercury 7470A	0.00020 U	0.00020	0.00006 0	mg/l	104	101	90-115	3	20
Batch number: 141550635001	Sample number(s): 7482399								
Aluminum	0.400 U	0.400	0.0828	mg/l	108	111	90-112	3	20
Antimony	0.0400 U	0.0400	0.0053	mg/l	103	104	88-111	1	20
Arsenic	0.0400 U	0.0400	0.0068	mg/l	111	112	90-113	1	20
Barium	0.0100 U	0.0100	0.00033	mg/l	104	105	90-110	1	20
Beryllium	0.0100 U	0.0100	0.00067	mg/l	103	104	90-111	1	20
Boron	0.100 U	0.100	0.0084	mg/l	94	96	90-110	2	20
Cadmium	0.0100 U	0.0100	0.00076	mg/l	106	106	90-112	0	20
Calcium	0.0347 J	0.400	0.0334	mg/l	105	106	90-112	1	20
Chromium	0.0300 U	0.0300	0.0016	mg/l	102	104	90-110	2	20
Cobalt	0.0100 U	0.0100	0.0013	mg/l	107	107	90-110	1	20
Copper	0.0200 U	0.0200	0.0027	mg/l	106	107	90-112	1	20
Iron	0.400 U	0.400	0.0430	mg/l	106	107	90-112	1	20
Lead	0.0300 U	0.0300	0.0047	mg/l	107	108	88-116	1	20
Lithium	0.0400 U	0.0400	0.0047	mg/l	105	106	90-110	1	20
Magnesium	0.0232 J	0.200	0.0167	mg/l	102	104	89-110	2	20
Manganese	0.00085 J	0.0100	0.00083	mg/l	104	106	90-110	2	20
Molybdenum	0.0200 U	0.0200	0.0017	mg/l	104	104	90-110	1	20
Nickel	0.0200 U	0.0200	0.0015	mg/l	109	110	90-111	0	20
Phosphorus	0.200 U	0.200	0.0418	mg/l	103	103	90-110	0	20
Potassium	1.00 U	1.00	0.0980	mg/l	103	104	90-110	1	20
Sodium	2.00 U	2.00	0.167	mg/l	102	103	87-114	1	20
Tin	0.0400 U	0.0400	0.0029	mg/l	100	100	90-110	0	20
Titanium	0.0200 U	0.0200	0.0017	mg/l	104	105	90-113	1	20
Vanadium	0.0100 U	0.0100	0.0020	mg/l	107	108	90-110	2	20
Zinc	0.0020 J	0.0400	0.0020	mg/l	104	104	90-110	1	20
Zirconium	0.100 U	0.100	0.0084	mg/l	106	107	90-110	1	20
Batch number: 141550639001A	Sample number(s): 7482399								
Silver	0.0010 U	0.0010	0.00011	mg/l	101	100	90-115	1	20
Strontium	0.0020 U	0.0020	0.00034	mg/l	101	100	90-110	1	20
Thallium	0.0010 U	0.0010	0.00015	mg/l	95	97	90-115	2	20
Batch number: 141550639001B	Sample number(s): 7482399								
Selenium	0.0040 U	0.0040	0.00050	mg/l	104	103	90-114	1	20
Batch number: 14150987301A	Sample number(s): 7482399								
2b Chromium VI by EPA 7199	10.0 U	10.0	5.0	ug/l	98	106	90-110	8	20
Batch number: 14150039401A	Sample number(s): 7482392-7482394,7482396-7482398								
15a pH by 9045D					100		95-105		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478251
Reported: 06/25/14 at 04:54 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14150121521A	Sample number(s): 7482399								
28b pH (9040B and 9040C)					99		90-110		
Batch number: 14156162402A	Sample number(s): 7482392-7482394,7482396-7482398								
14a Moisture Content by 160.3					100		80-120		

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14156001	Sample number(s): 7482399								
2378-TCDD	0.350 J	2.00	0.268	pg/l	95		60-150		
12378-PeCDD	0.291 J	10.0	0.193	pg/l	93		60-150		
123478-HxCDD	10.0 U	10.0	0.155	pg/l	94		60-150		
123678-HxCDD	10.0 U	10.0	0.156	pg/l	93		60-150		
123789-HxCDD	0.359 J	10.0	0.155	pg/l	94		60-150		
1234678-HpCDD	0.511 J	10.0	0.176	pg/l	93		60-150		
OCDD	3.21 J	20.0	0.224	pg/l	90		60-150		
2378-TCDF	2.00 U	2.00	0.194	pg/l	89		60-150		
12378-PeCDF	0.654 J	10.0	0.127	pg/l	94		60-150		
23478-PeCDF	10.0 U	10.0	0.118	pg/l	95		60-150		
123478-HxCDF	0.334 J	10.0	0.112	pg/l	99		60-150		
123678-HxCDF	0.154 J	10.0	0.114	pg/l	97		60-150		
123789-HxCDF	0.265 J	10.0	0.107	pg/l	94		60-150		
234678-HxCDF	0.272 J	10.0	0.109	pg/l	95		60-150		
1234678-HpCDF	0.570 J	10.0	0.0768	pg/l	95		60-150		
1234789-HpCDF	0.509 J	10.0	0.0974	pg/l	94		60-150		
OCDF	1.26 J	20.0	0.244	pg/l	94		60-150		
Batch number: 14157002	Sample number(s): 7482392-7482394,7482396-7482398								
2378-TCDD	1.00 U	1.00	0.0602	ng/kg	105		67-158		
12378-PeCDD	0.101 J	5.00	0.0359	ng/kg	103		70-142		
123478-HxCDD	0.0591 J	5.00	0.0229	ng/kg	100		70-164		
123678-HxCDD	0.0425 J	5.00	0.0249	ng/kg	96		76-134		
123789-HxCDD	0.0758 J	5.00	0.0233	ng/kg	98		64-162		
1234678-HpCDD	0.151 J	5.00	0.0256	ng/kg	96		70-140		
OCDD	0.599 J	10.0	0.0292	ng/kg	91		78-144		
2378-TCDF	0.0476 J	1.00	0.0405	ng/kg	110		75-158		
12378-PeCDF	5.00 U	5.00	0.0168	ng/kg	102		80-134		
23478-PeCDF	0.0664 J	5.00	0.0173	ng/kg	100		68-160		
123478-HxCDF	0.0920 J	5.00	0.0235	ng/kg	96		72-134		
123678-HxCDF	0.0449 J	5.00	0.0203	ng/kg	97		84-130		
123789-HxCDF	0.0932 J	5.00	0.0241	ng/kg	98		78-130		
234678-HxCDF	0.0780 J	5.00	0.0213	ng/kg	97		70-156		
1234678-HpCDF	0.0827 J	5.00	0.00854	ng/kg	93		82-122		
1234789-HpCDF	0.0955 J	5.00	0.0156	ng/kg	95		78-138		
OCDF	0.338 J	10.0	0.0440	ng/kg	92		63-170		
Batch number: 14156001	Sample number(s): 7482399								
TEQ WHO 2005 - EDLx0.0	0.403			pg/l					
Batch number: 14157002	Sample number(s): 7482392-7482394,7482396-7482398								
TEQ WHO 2005 - EDLx0.0	0.0140			ng/kg					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478251
Reported: 06/25/14 at 04:54 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14151SLE026	Sample number(s): 7482392-7482394,7482396-7482398 UNSPK: P479354								
Acenaphthene	97	96	48-127	0	30				
Acenaphthylene	100	100	60-128	0	30				
Anthracene	93	94	52-126	0	30				
Benzo(a)anthracene	101	99	44-143	1	30				
Benzo(a)pyrene	83	82	49-137	1	30				
Benzo(b)fluoranthene	88	90	26-142	1	30				
Benzo(e)pyrene	76	77	63-111	0	30				
Benzo(g,h,i)perylene	77	74	33-141	4	30				
Benzo(k)fluoranthene	84	86	49-144	2	30				
Butylbenzylphthalate	105	104	64-156	1	30				
Di-n-butylphthalate	106	103	52-147	3	30				
Chrysene	91	94	43-141	2	30				
Dibenz(a,h)anthracene	85	85	25-145	1	30				
Diethylphthalate	89	91	66-140	2	30				
Dimethylphthalate	85	84	70-123	1	30				
Bis(2-Ethylhexyl)phthalate	119	112	48-164	6	30				
Fluoranthene	94	117	38-153	20	30				
Fluorene	81	80	57-130	2	30				
Indeno(1,2,3-cd)pyrene	81	79	26-139	2	30				
1-Methylnaphthalene	90	91	59-139	1	30				
2-Methylnaphthalene	95	95	46-147	1	30				
Naphthalene	89	89	52-136	0	30				
N-Nitrosodimethylamine	84	84	39-134	0	30				
Di-n-octylphthalate	106	105	52-162	1	30				
Phenanthrene	104	125	50-137	17	30				
Pyrene	86	97	26-143	12	30				
Batch number: 14154A16A	Sample number(s): 7482393-7482394,7482397-7482398 UNSPK: P483434								
11a TPH by EPA 8015B GRO	72	77	69-123	6	30				
Batch number: 141540023A	Sample number(s): 7482399 UNSPK: 7482399								
6b Perchlorate (Method 6850)	107	107	80-120	1	20				
Batch number: 141550002A	Sample number(s): 7482392-7482394,7482396-7482398 UNSPK: P483434								
6a Perchlorate (Method 6850)	105	102	80-120	3	20				
Batch number: 141540027A	Sample number(s): 7482392-7482394,7482396-7482398 UNSPK: P483434								
PCB-1016	115	110	41-135	4	50				
PCB-1260	121	113	40-134	7	50				
Batch number: 141550025A	Sample number(s): 7482399 UNSPK: 7482399								
Diethylene glycol	91	117	50-166	25*	20				
Ethylene glycol	95	124	50-155	26*	20				
Propylene glycol	101	132	54-145	27*	20				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478251
Reported: 06/25/14 at 04:54 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Triethylene glycol	86	103	50-133	19	20				
Batch number: 141540006A	Sample number(s): 7482392-7482394,7482396-7482398 UNSPK: P479354								
EFH (C12-C14)	88	89	49-123	1	20				
EFH (C15-C20)	106	107	49-123	2	20				
EFH (C21-C30)	77	81	49-123	2	20				
EFH (C30-C40)	73	79	49-123	3	20				
EFH (C8-C11)	85	83	49-123	2	20				
Batch number: 141540007A	Sample number(s): 7482392-7482394,7482396-7482398 UNSPK: P479354								
EFH C12-C14 w/ SiGel	61	70	49-123	13	20				
EFH C15-C20 w/ SiGel	63	71	49-123	13	20				
EFH C21-C30 w/ SiGel	68	77	49-123	12	20				
EFH C30-C40 w/ SiGel	65	74	49-123	12	20				
EFH C8-C11 w/ SiGel	50	58	49-123	16	20				
Batch number: 141540637001	Sample number(s): 7482392-7482394,7482396-7482398 UNSPK: P483434 BKG: P483434								
Aluminum	618 (2)	1777 (2)	75-125	20	20	9,070	8,860	2	20
Antimony	71*	67*	75-125	5	20	3.96 U	3.88 U	0 (1)	20
Arsenic	97	103	75-125	6	20	3.02 J	6.16	68* (1)	20
Barium	98	104	75-125	6	20	57.9	59.0	2	20
Beryllium	101	106	75-125	6	20	0.428 J	0.442 J	3 (1)	20
Boron	95	96	75-125	4	20	1.67 J	1.97 J	16 (1)	20
Cadmium	99	98	75-125	1	20	0.990 U	0.971 U	0 (1)	20
Calcium	33 (2)	209 (2)	75-125	28*	20	2,040	2,050	1	20
Chromium	92	109	75-125	13	20	8.95	9.36	5 (1)	20
Cobalt	97	97	75-125	2	20	3.29	3.36	2 (1)	20
Copper	100	115	75-125	14	20	4.22	4.58	8 (1)	20
Iron	-955 (2)	2923 (2)	75-125	23*	20	15,500	16,300	6	20
Lead	92	106	75-125	12	20	4.72	5.01	6 (1)	20
Lithium	103	106	75-125	4	20	21.4	22.7	6	20
Magnesium	44 (2)	433 (2)	75-125	21*	20	3,190	3,350	5	20
Manganese	64 (2)	106 (2)	75-125	8	20	237	241	2	20
Molybdenum	97	97	75-125	2	20	0.294 J	0.168 J	55* (1)	20
Nickel	98	99	75-125	3	20	5.52	5.42	2 (1)	20
Phosphorus	75	166*	75-125	21*	20	318	338	6	20
Potassium	116	145*	75-125	8	20	2,710	2,720	1	20
Sodium	99	100	75-125	3	20	68.0 J	68.2 J	0 (1)	20
Tin	92	91	75-125	1	20	2.50 J	2.55 J	2 (1)	20
Titanium	219 (2)	305 (2)	75-125	8	20	838	884	5	20
Vanadium	100	113	75-125	10	20	19.9	21.1	6	20
Zinc	96	117	75-125	11	20	54.1	56.6	4	20
Zirconium	102	102	75-125	2	20	1.85 J	2.67 J	36* (1)	20
Batch number: 141540637001A	Sample number(s): 7482392-7482394,7482396-7482398 UNSPK: P483434 BKG: P483434								
Silver	101	102	75-125	2	20	0.198 U	0.194 U	0 (1)	20
Strontium	97	107	75-125	5	20	9.02	9.92	10	20
Thallium	103	99	75-125	1	20	0.216	0.234	8 (1)	20
Batch number: 141540637001B	Sample number(s): 7482392-7482394,7482396-7482398 UNSPK: P483434 BKG: P483434								

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478251
Reported: 06/25/14 at 04:54 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Selenium	106	109	75-125	4	20	0.396 U	0.133 J	200* (1)	20
Batch number: 141540638001	Sample number(s): 7482392-7482394,7482396-7482398 UNSPK: P483434 BKG: P483434								
3a Mercury 7471A	110	111	65-135	2	20	0.0157 U	0.0164 U	0 (1)	20
Batch number: 14150039401A	Sample number(s): 7482392-7482394,7482396-7482398 BKG: 7482392								
15a pH by 9045D						6.32	6.33	0	3
Batch number: 14150121521A	Sample number(s): 7482399 BKG: P476617								
28b pH (9040B and 9040C)						6.5	6.5	0	3
Batch number: 14156162402A	Sample number(s): 7482392-7482394,7482396-7482398 BKG: P482508								
14a Moisture Content by 160.3						78.0	77.6	1	20
Batch number: 14157002	Sample number(s): 7482392-7482394,7482396-7482398 UNSPK: P482511								
2378-TCDD	101	102	40-135	0	20				
12378-PeCDD	101	101	40-135	1	20				
123478-HxCDD	97	96	40-135	2	20				
123678-HxCDD	95	95	40-135	1	20				
123789-HxCDD	97	95	40-135	3	20				
1234678-HpCDD	94	91	40-135	3	20				
OCDD	90	90	40-135	1	20				
2378-TCDF	104	104	40-135	2	20				
12378-PeCDF	97	96	40-135	2	20				
23478-PeCDF	97	96	40-135	2	20				
123478-HxCDF	93	94	40-135	0	20				
123678-HxCDF	95	94	40-135	1	20				
123789-HxCDF	96	92	40-135	5	20				
234678-HxCDF	95	94	40-135	2	20				
1234678-HpCDF	92	92	40-135	2	20				
1234789-HpCDF	93	93	40-135	1	20				
OCDF	89	90	40-135	0	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141551AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7482399	102	101	95	94
Blank	101	100	96	95
LCS	101	98	98	99
LCSD	100	101	97	98
Limits:	86-118	80-120	88-110	86-115

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478251
Reported: 06/25/14 at 04:54 PM

Surrogate Quality Control

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14151SLE026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7482392	92	81	83
7482393	100	112	86
7482394	101	115	88
7482396	99	110	89
7482397	100	109	90
7482398	92	108	90
Blank	99	106	89
LCS	103	119*	89
MS	96	106	88
MSD	99	107	87
Limits:	59-115	61-118	70-127

Analysis Name: 8b SVOCs by EPA 8270D
Batch number: 14155WAG026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
7482399	49	69	87	98	91	100
Blank	47	67	84	92	84	97
LCS	59	77	92	100	96	106
LCSD	56	75	93	101	94	94
Limits:	20-110	20-110	30-110	40-130	45-130	45-130

Analysis Name: 7b SVOC SIM EPA 8270D
Batch number: 14155WAH026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7482399	95	98	84
Blank	93	95	77
LCS	106	113	93
LCSD	96	102	85
Limits:	59-128	62-141	70-134

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14150B94A

	Trifluorotoluene-F
7482395	81
7482399	83
Blank	81
LCS	91
LCSD	85
Limits:	63-135

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 14154A16A

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478251
Reported: 06/25/14 at 04:54 PM

Surrogate Quality Control

	Trifluorotoluene-F
7482393	87
7482394	89
7482397	86
7482398	87
Blank	90
LCS	96
MS	83
MSD	87
Limits:	50-142

Analysis Name: 24b Herbicides by EPA 8151A
Batch number: 141510002A

	2,4-Dichlorophenylacetic acid
7482399	79
Blank	96
LCS	123
LCSD	119
Limits:	50-150

Analysis Name: 21b PCBs and PCTs 8082A
Batch number: 141530008A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7482399	92	67
Blank	76	53
LCS	98	59
LCSD	107	78
Limits:	45-120	45-120

Analysis Name: 22b Pesticides by EPA 8081B
Batch number: 141530009A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7482399	110	88
Blank	106	82
LCS	98	87
LCSD	90	88
Limits:	60-140	20-120

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141540027A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7482392	113	108
7482393	120	112
7482394	121*	112
7482396	117	104
7482397	122*	115

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478251
Reported: 06/25/14 at 04:54 PM

Surrogate Quality Control

7482398	111	115
Blank	116	110
LCS	122*	116
LCSD	124*	121*
MS	121*	116
MSD	116	110
Limits:	45-120	45-120

Analysis Name: 18b Energetics by 8330A
Batch number: 141550011A

	2-Nitro-m-xylene
7482399	115
Blank	111
LCS	89
LCSD	97
Limits:	80-146

Analysis Name: 23b Terphenyls by 8015B
Batch number: 141540005A

	n-Triacontane-d62
7482399	89
Blank	90
LCS	95
LCSD	108
Limits:	36-160

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141540006A

	Chlorobenzene	Orthoterphenyl
7482392	95	96
7482393	86	82
7482394	73	87
7482396	69	80
7482397	68	80
7482398	86	86
Blank	74	88
LCS	76	91
MS	78	87
MSD	92	87
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141540007A

	Chlorobenzene	Orthoterphenyl
7482392	59	73
7482393	62	62*
7482394	57	65*
7482396	61	65*

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478251
Reported: 06/25/14 at 04:54 PM

Surrogate Quality Control

7482397	64	70
7482398	56	64*
Blank	50	54*
LCS	62	67
MS	58	61*
MSD	66	69
Limits:	37-125	66-123

Analysis Name: 10b TPH by EPA 8015B (DRO)
Batch number: 141550009A

	Chlorobenzene	Orthoterphenyl
7482399	79	82
Blank	80	85
LCS	83	84
LCSD	86	86
Limits:	45-126	69-119

Analysis Name: 10b TPH-DRO (w/Si Gel)
Batch number: 141550010A

	Chlorobenzene	Orthoterphenyl
7482399	75	84
Blank	66	76
LCS	70	76
LCSD	71	75
Limits:	45-126	69-119

Analysis Name: 20b Glycols by EPA 8015C
Batch number: 141550025A

	Tetramethylene glycol
7482399	108
Blank	117
LCS	137
MS	110
MSD	134
Limits:	58-141

Analysis Name: 17b Dioxin/Furan by EPA 1613B
Batch number: 14156001

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7482399	63	71	77	79	76	73
Blank	82	87	90	95	92	88
OPR	75	85	83	84	85	86
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7482399	65	62	70	71	76	78

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478251
Reported: 06/25/14 at 04:54 PM

Surrogate Quality Control

Blank	74	78	87	86	89	92
OPR	79	68	81	83	78	81
Limits:	17-157	24-169	24-185	21-178	26-152	26-123
	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	
7482399	77	81	78	70	63	
Blank	91	102	92	84	72	
OPR	82	90	88	80	74	
Limits:	28-136	29-147	28-143	26-138	17-157	

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 14157002

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7482392	73	86	80	82	83	73
7482393	64	81	82	84	84	74
7482394	69	85	80	82	85	74
7482396	77	91	86	87	87	77
7482397	72	91	86	88	90	77
7482398	67	81	88	90	88	85
Blank	72	93	88	86	87	81
MS	83	100	91	91	92	85
MSD	78	96	84	86	87	79
OPR	67	89	80	83	82	75
Limits:	25-164	25-181	32-141	28-130	28-130	23-140
	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7482392	64	79	97	91	77	86
7482393	63	67	87	83	74	85
7482394	65	74	94	89	75	82
7482396	66	83	100	98	83	90
7482397	65	79	99	97	81	89
7482398	74	63	84	78	82	91
Blank	70	77	102	95	76	88
MS	71	94	108	109	89	93
MSD	67	87	100	103	81	86
OPR	65	72	94	95	77	85
Limits:	17-157	24-169	24-185	21-178	26-152	26-123
	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	
7482392	80	80	93	60	49	
7482393	80	72	93	59	48	
7482394	79	77	90	61	50	
7482396	88	84	93	68	55	
7482397	85	83	94	64	53	
7482398	84	80	108	68	60	
Blank	81	82	102	62	51	
MS	90	97	94	74	60	
MSD	85	90	87	69	56	

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478251
Reported: 06/25/14 at 04:54 PM

Surrogate Quality Control

OPR	81	80	95	64	53
Limits:	28-136	29-147	28-143	26-138	17-157

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

A-13013
G-1478251
S-7482392-99

CDM Smith

DateShipped: 5/29/2014
CarrierName: FedEx
AirbillNo: 770138544895

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140529-04
Cooler #: 1 and 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
EB1-052914	5/29/14 15:00	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	X		X																																
EB1-052914	5/29/14 15:00	WQ	None	1 - 250 mL Amber	10 day					X																															Biphenyls only.
EB1-052914	5/29/14 15:00	WQ	None	1 - 250 mL Amber	10 day						X																														Morpholine only.
EB1-052914	5/29/14 15:00	WQ	None	1 - 250 mL Amber	10 day							X																												
EB1-052914	5/29/14 15:00	WQ	None	2 - 1 L Amber	10 day									X																										
EB1-052914	5/29/14 15:00	WQ	None	1 - 250 mL Amber	10 day										X																									
EB1-052914	5/29/14 15:00	WQ	None	2 - 40 mL Vial	10 day											X	X																							
EB1-052914	5/29/14 15:00	WQ	None	1 - 250 mL Poly	10 day														X																				
EB1-052914	5/29/14 15:00	WQ	None	1 - 250 mL Poly	10 day															X																			
EB1-052914	5/29/14 15:00	WQ	None	2 - 1 L Amber	10 day																X																		
EB1-052914	5/29/14 15:00	WQ	None	1 - 250 mL Amber	10 day																	X																	
EB1-052914	5/29/14 15:00	WQ	HCl	3 - 40 mL Vial	10 day																		X																
EB1-052914	5/29/14 15:00	WQ	HCl	3 - 40 mL Vial	10 day																			X															
EB1-052914	5/29/14 15:00	WQ	HCl	2 - 1 L Amber	10 day																				X														
EB1-052914	5/29/14 15:00	WQ	None	2 - 40 mL Vial	10 day																					X													
EB1-052914	5/29/14 15:00	WQ	HCl	1 - 1 L Amber	10 day																							X										
EB1-052914	5/29/14 15:00	WQ	None	2 - 1 L Amber	10 day																								X									

*Perchlorate by 314 was removed per TB.
NM 6/4/14

EB1 - TRENCH

SSFL Phase 3 Chain of Custody

A-130 13
G-1478251
S-7482392-99

CDM Smith

DateShipped: 5/29/2014
CarrierName: FedEx
AirbillNo: 770138544895

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140529-03
Cooler #: 3
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
SL-503-SA5C-TR-0.5	5/29/14 08:05	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X	X	X	X								X														
SL-503-SA5C-TR-5.0	5/29/14 08:20	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X	X	X	X								X														
SL-503-SA5C-TR-5.0	5/29/14 08:20	SO	None	2 - Encore	10 day																				X															
SL-503-SA5C-TR-7.5	5/29/14 09:00	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X	X	X	X								X														
SL-503-SA5C-TR-7.5	5/29/14 09:00	SO	None	2 - Encore	10 day																				X															
TB3-052914	5/29/14 08:00	WQ	HCl	~~3~~ 40 mL Vial	10 day																		~~X~~		X															only TPH-GRO
SL-605-SA5C-TR-0.5	5/29/14 13:15	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X	X	X	X								X														
SL-605-SA5C-TR-5.0	5/29/14 13:30	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X	X	X	X								X														
SL-605-SA5C-TR-5.0	5/29/14 13:30	SO	None	2 - Encore	10 day																				X															
SL-605-SA5C-TR-10.0	5/29/14 13:45	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X	X	X	X								X														
SL-605-SA5C-TR-10.0	5/29/14 13:45	SO	None	2 - Encore	10 day																				X															

Special Instructions: For all EFH, silica gel clean up required on half the extract. Analyze both extracts for EFH.

Sampler: Randy Roberts

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
	52914	1600									
										5/30/14	0945

TRENCHING

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/29/2014 A-13013
CarrierName: FedEx G-1478251
AirbillNo: 770138544895 S-748239299

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140529-04
Cooler #: 1 and 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other

Special Instructions: For all EFH, silica gel clean up required on half the extract. Analyze both extracts for EFH.

Sampler: Andrew Payne

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[signature]	05/29/14	1600									
									[signature]	5/30/14	0945

EBI- TRENCH

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 15973

Group Number(s): 1478257

Client: CDM Smith

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/30/2014 9:45
Number of Packages:	6	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	No		
Sample Date/Times match COC:	No		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Joseph Gruber (5200) at 11:26 on 05/30/2014

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT131	1.6	DT	Wet	Y	Bagged	N	N
2	DT131	1.2	DT	Wet	Y	Bagged	N	N
3	DT131	1.0	DT	Wet	Y	Bagged	N	N
4	DT131	0.9	DT	Wet	Y	Bagged	N	N
5	DT131	1.6	DT	Wet	Y	Bagged	N	N
6	DT131	1.1	DT	Wet	Y	Bagged	N	N

Sample ID Discrepancy Details

Sample ID on COC	Sample ID on Label	Comments
STS-PHY-SO-08_SM_CC-0.0 -1.0	STS-PHY-SO-08_SM_CC-0.0 -1.0-MS	

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Client: CDM Smith

Sample Date/Time Discrepancy Details

Sample ID on COC	Date/Time on Label	Comments
STS-PHY-PT-23_YS_A-BG	5/29/2014 10:45	

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

eurofins | Lancaster Laboratories Environmental

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

July 07, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 05/31/2014
Group Number: 1478425
SDG: PH209
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SL-651-SA5C-TR-0.5 Soil	7483433
SL-651-SA5C-TR-5.0 Soil	7483434
SL-651-SA5C-TR-5.0 SS Soil	7483435
SL-651-SA5C-TR-5.0 IS Soil	7483436
SL-651-SA5C-TR-5.0 PDS Soil	7483437
SL-651-SA5C-TR-5.0 MS Soil	7483438
SL-651-SA5C-TR-5.0 MSD Soil	7483439
SL-651-SA5C-TR-5.0 DUP Soil	7483440
SL-951-SA5C-TR-5.0 Soil	7483441
SL-651-SA5C-TR-10.0 Soil	7483442
SL-651-SA5C-TR-15.0 Soil	7483443
TB3-053014 Water	7483444

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: SL-651-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483433
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:18 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65105 SDG#: PH209-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270D			ug/kg		ug/kg	ug/kg	ug/kg	
10726	Aniline	62-53-3	520	U	520	170		1
10726	Benzidine	92-87-5	3,500	U	3,500	730		1
10726	Benzo(a)anthracene	56-55-3	4	J	18	3		1
10726	Benzo(a)pyrene	50-32-8	4	J	18	3		1
10726	Benzo(b)fluoranthene	205-99-2	5	J	18	3		1
10726	Benzo(g,h,i)perylene	191-24-2	4	J	18	3		1
10726	Benzoic acid	65-85-0	520	U	520	170		1
10726	Benzyl alcohol	100-51-6	520	U	520	170		1
10726	1,1'-Biphenyl	92-52-4	35	U	35	17		1
10726	4-Bromophenyl-phenylether	101-55-3	35	U	35	17		1
10726	Carbazole	86-74-8	35	U	35	17		1
10726	4-Chloro-3-methylphenol	59-50-7	35	U	35	17		1
10726	4-Chloroaniline	106-47-8	35	U	35	17		1
10726	bis(2-Chloroethoxy)methane	111-91-1	35	U	35	17		1
10726	bis(2-Chloroethyl)ether	111-44-4	35	U	35	17		1
10726	bis(2-Chloroisopropyl)ether	39638-32-9	35	U	35	17		1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.							
10726	2-Chloronaphthalene	91-58-7	34	U	34	7		1
10726	2-Chlorophenol	95-57-8	35	U	35	17		1
10726	4-Chlorophenyl-phenylether	7005-72-3	35	U	35	17		1
10726	Chrysene	218-01-9	5	J	18	3		1
10726	Dibenzofuran	132-64-9	35	U	35	17		1
10726	1,2-Dichlorobenzene	95-50-1	35	U	35	17		1
10726	1,3-Dichlorobenzene	541-73-1	35	U	35	17		1
10726	1,4-Dichlorobenzene	106-46-7	35	U	35	17		1
10726	3,3'-Dichlorobenzidine	91-94-1	350	U	350	100		1
10726	2,4-Dichlorophenol	120-83-2	35	U	35	17		1
10726	2,6-Dichlorophenol	87-65-0	35	U	35	17		1
10726	2,4-Dimethylphenol	105-67-9	35	U	35	17		1
10726	3,5-Dimethylphenol	108-68-9	170	U	170	35		1
10726	4,6-Dinitro-2-methylphenol	534-52-1	520	U	520	170		1
10726	2,4-Dinitrophenol	51-28-5	1,000	U	1,000	310		1
10726	1,2-Diphenylhydrazine	122-66-7	35	U	35	17		1
10726	Fluoranthene	206-44-0	4	J	18	3		1
10726	Hexachlorobenzene	118-74-1	18	U	18	3		1
10726	Hexachlorobutadiene	87-68-3	35	U	35	17		1
10726	Hexachlorocyclopentadiene	77-47-4	520	U	520	170		1
10726	Hexachloroethane	67-72-1	170	U	170	35		1
10726	Isophorone	78-59-1	35	U	35	17		1
10726	2-Methylphenol	95-48-7	35	U	35	17		1
10726	4-Methylphenol	106-44-5	35	U	35	17		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
10726	NDPA as diphenylamine	n.a.	170	U	170	35		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-651-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483433
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:18 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65105 SDG#: PH209-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10726	2-Nitroaniline	88-74-4	35	U	35	17		1
10726	3-Nitroaniline	99-09-2	170	U	170	70		1
10726	4-Nitroaniline	100-01-6	170	U	170	70		1
10726	Nitrobenzene	98-95-3	35	U	35	17		1
10726	2-Nitrophenol	88-75-5	35	U	35	17		1
10726	4-Nitrophenol	100-02-7	520	U	520	170		1
10726	N-Nitroso-di-n-propylamine	621-64-7	35	U	35	17		1
10726	N-Nitrosodiphenylamine	86-30-6	35	U	35	17		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10726	Pentachlorophenol	87-86-5	180	U	180	35		1
10726	Phenol	108-95-2	35	U	35	17		1
10726	Pyrene	129-00-0	5	J	18	3		1
10726	Pyridine	110-86-1	170	U	170	70		1
10726	1,2,4-Trichlorobenzene	120-82-1	35	U	35	17		1
10726	2,4,5-Trichlorophenol	95-95-4	35	U	35	17		1
10726	2,4,6-Trichlorophenol	88-06-2	35	U	35	17		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: 4,6-dinitro-2-methylphenol 4-nitroaniline							
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70		1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35		1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35		1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5		1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.70		1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3		1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3		1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.70		1
12969	Diethylphthalate	84-66-2	19	U	19	6.3		1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3		1
12969	Fluorene	86-73-7	1.7	U	1.7	0.70		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.70		1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.70		1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.70		1
12969	Naphthalene	91-20-3	1.2	J	1.7	0.70		1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70		1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3		1
12969	Phenanthrene	85-01-8	1.4	J	1.7	0.70		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: benzo(e)pyrene							

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-651-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483433
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:18 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65105 SDG#: PH209-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Explosives	**SW-846 8330A**		ug/kg		ug/kg	ug/kg	ug/kg	
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	310	U	310	160	10000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	310	U	310	100	10000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	420	U	420	210	10000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	420	U	420	210	10000000	1
10132	1,3-Dinitrobenzene	99-65-0	310	U	310	100	10000000	1
10132	2,4-Dinitrotoluene	121-14-2	310	U	310	100	10000000	1
10132	2,6-Dinitrotoluene	606-20-2	310	U	310	100	10000000	1
10132	HMX	2691-41-0	420	U	420	210	10000000	1
10132	Nitrobenzene	98-95-3	310	U	310	100	10000000	1
10132	Nitroglycerin	55-63-0	2,100	U	2,100	1,000	10000000	1
10132	2-Nitrotoluene	88-72-2	310	U	310	210	10000000	1
10132	3-Nitrotoluene	99-08-1	310	U	310	260	10000000	1
10132	4-Nitrotoluene	99-99-0	310	U	310	210	10000000	1
10132	PETN	78-11-5	2,100	U	2,100	1,000	10000000	1
10132	RDX	121-82-4	310	U	310	140	10000000	1
10132	Tetryl	479-45-8	310	U	310	170	10000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	310	U	310	100	10000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	310	U	310	100	10000000	1
Herbicides	**SW-846 8151A**		ug/kg		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	37	U	37	12		1
10401	Dalapon	75-99-0	94	U	94	46		1
10401	2,4-DB	94-82-6	15	J	18	6.4		1
10401	Dicamba	1918-00-9	12	U	12	4.2		1
10401	Dinoseb	88-85-7	25	U	25	9.4		1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.							
10401	2,4-DP (Dichlorprop)	120-36-5	18	U	18	9.4		1
10401	MCPA	94-74-6	2,600	U	2,600	790		1
10401	MCPP (Mecoprop)	93-65-2	2,600	U	2,600	780		1
10401	2,4,5-T	93-76-5	1.8	U	1.8	0.85		1
10401	2,4,5-TP	93-72-1	1.8	U	1.8	0.78		1

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SSFL Phase 3 Subarea 5C

LL Sample # SW 7483433
LL Group # 1478425
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65105 SDG#: PH209-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Perchlorate	**SW-846 6850 1/2007**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.2	U	5.2	2.2		1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.87	U	0.87	0.18		1
10590	Alpha BHC	319-84-6	0.87	U	0.87	0.18		1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0		1
10590	Gamma BHC - Lindane	58-89-9	0.87	U	0.87	0.18		1
10590	Chlordane	57-74-9	18	U	18	4.2		1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.34		1
10590	p,p-DDE	72-55-9	1.8	U	1.8	0.34		1
10590	p,p-DDT	50-29-3	1.8	U	1.8	0.36		1
10590	Delta BHC	319-86-8	0.87	U	0.87	0.47		1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.34		1
10590	Endosulfan I	959-98-8	0.87	U	0.87	0.23		1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.34		1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.34		1
10590	Endrin	72-20-8	1.8	U	1.8	0.34		1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.34		1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.63		1
10590	Heptachlor	76-44-8	0.87	U	0.87	0.18		1
10590	Heptachlor Epoxide	1024-57-3	0.87	U	0.87	0.18		1
10590	Methoxychlor	72-43-5	7.0	U	7.0	1.8		1
10590	Mirex	2385-85-5	1.8	U	1.8	0.36		1
10590	Toxaphene	8001-35-2	34	U	34	15		1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10		1
13099	Aroclor 5442	12642-23-8	34	U	34	10		1
13099	Aroclor 5460	11126-42-4	34	U	34	10		1
13099	PCB-1016	12674-11-2	17	U	17	3.4		1
13099	PCB-1221	11104-28-2	17	U	17	5.2		1
13099	PCB-1232	11141-16-5	17	U	17	4.2		1
13099	PCB-1242	53469-21-9	17	U	17	4.2		1
13099	PCB-1248	12672-29-6	17	U	17	3.4		1
13099	PCB-1254	11097-69-1	17	U	17	4.5		1
13099	PCB-1260	11096-82-5	17	U	17	4.0		1
13099	PCB-1262	37324-23-5	17	U	17	3.4		1
13099	PCB-1268	11100-14-4	17	U	17	3.4		1
	For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.							
GC Miscellaneous	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12934	Diethylene glycol	111-46-6	10	U	10	5.2		1
12934	Ethylene glycol	107-21-1	10	U	10	5.2		1
12934	Propylene glycol	57-55-6	10	U	10	5.2		1
12934	Triethylene glycol	112-27-6	10	U	10	5.2		1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	

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Sample Description: SL-651-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483433
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Account # 13013

Project Name: SSFL Phase 3 Sampling

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CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	0.18	U	0.18	0.070		1
10318	o-Terphenyl	84-15-1	0.18	U	0.18	0.070		1
10318	p-Terphenyl	92-94-4	0.18	U	0.18	0.070		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1		1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1		1
12952	EFH (C21-C30)	n.a.	10		5.2	2.1		1
12952	EFH (C30-C40)	n.a.	18		10	4.2		1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1		1
13197	EFH C12-C14 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
13197	EFH C15-C20 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
13197	EFH C21-C30 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.2		1
13197	EFH C8-C11 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
	The reverse surrogate, capric acid, is present at <1%.							
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	17,800		40.9	7.37		1
06944	Antimony	7440-36-0	4.09	U	4.09	0.757		1
06935	Arsenic	7440-38-2	4.28		4.09	0.716		1
06946	Barium	7440-39-3	96.8		1.02	0.0337		1
06947	Beryllium	7440-41-7	0.703	J	1.02	0.0685		1
07914	Boron	7440-42-8	1.78	J	10.2	0.859		1
06949	Cadmium	7440-43-9	1.02	U	1.02	0.0777		1
01650	Calcium	7440-70-2	3,530		20.4	3.41		1
06951	Chromium	7440-47-3	20.8		3.07	0.164		1
06952	Cobalt	7440-48-4	7.09		1.02	0.101		1
06953	Copper	7440-50-8	9.27		2.04	0.296		1
01654	Iron	7439-89-6	22,500		40.9	3.70		1
06955	Lead	7439-92-1	7.17		3.07	0.511		1
01656	Lithium	7439-93-2	22.8		4.1	0.35		1
01657	Magnesium	7439-95-4	5,070		10.2	1.71		1
06958	Manganese	7439-96-5	345		1.02	0.0849		1
06960	Molybdenum	7439-98-7	0.186	J	2.04	0.174		1
06961	Nickel	7440-02-0	12.0		2.04	0.133		1
10145	Phosphorus	7723-14-0	447		10.2	2.95		1
01662	Potassium	7440-09-7	3,920		102	8.53		1
01667	Sodium	7440-23-5	76.3	J	102	17.1		1
06969	Tin	7440-31-5	2.73	J	10.2	0.225		1
06970	Titanium	7440-32-6	1,170		1.02	0.174		1
06971	Vanadium	7440-62-2	40.7		1.02	0.133		1
06972	Zinc	7440-66-6	60.2		4.09	0.204		1
10146	Zirconium	7440-67-7	3.73	J	5.11	0.859		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-651-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483433
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:18 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65105 SDG#: PH209-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6020A**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.167	J	0.409	0.102		2
06142	Silver	7440-22-4	0.204	U	0.204	0.0266		2
06144	Strontium	7440-24-6	22.4		0.409	0.0695		2
06145	Thallium	7440-28-0	0.329		0.204	0.0307		2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0624		0.0173	0.0104		1
Wet Chemistry	**SW-846 7199**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05892	2a Chromium VI by EPA 7199	18540-29-9	0.62		0.42	0.15		1
	SW-846 9045D modified		**Std. Units**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.70		0.0100	0.0100		1
	The pH was measured in water at 21.5 C.							
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.1		0.10	0.10		1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.							

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Sample Description: SL-651-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483433
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:18 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65105 SDG#: PH209-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.03	U	1.03	0.0479		1
11031	12378-PeCDD	40321-76-4	0.170	JBQ	5.17	0.0449		1
11031	123478-HxCDD	39227-28-6	0.134	JBQ	5.17	0.0429		1
11031	123678-HxCDD	57653-85-7	0.552	JB	5.17	0.0447		1
11031	123789-HxCDD	19408-74-3	0.518	JBQ	5.17	0.0409		1
11031	1234678-HpCDD	35822-46-9	7.89	B	5.17	0.0582		1
11031	OCDD	3268-87-9	83.9	B	10.3	0.0444		1
11031	2378-TCDF	51207-31-9	0.129	JQ	1.03	0.0590		1
11031	12378-PeCDF	57117-41-6	0.269	JB	5.17	0.0254		1
11031	23478-PeCDF	57117-31-4	0.194	JB	5.17	0.0251		1
11031	123478-HxCDF	70648-26-9	0.141	JBQ	5.17	0.0451		1
11031	123678-HxCDF	57117-44-9	0.133	JBQ	5.17	0.0388		1
11031	123789-HxCDF	72918-21-9	0.448	JBQ	5.17	0.0519		1
11031	234678-HxCDF	60851-34-5	0.148	JB	5.17	0.0433		1
11031	1234678-HpCDF	67562-39-4	1.13	JB	5.17	0.0229		1
11031	1234789-HpCDF	55673-89-7	0.0929	JBQ	5.17	0.0377		1
11031	OCDF	39001-02-0	2.88	JB	10.3	0.0514		1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.252					1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	80	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	73	23 - 140
13C12-OCDD	65	17 - 157
13C12-2378-TCDF	80	24 - 169
13C12-12378-PeCDF	89	24 - 185
13C12-23478-PeCDF	83	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	81	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	56	26 - 138
13C12-OCDF	49	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-651-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483433
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:18 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65105 SDG#: PH209-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Action Limit	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-651-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483433
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:18 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65105 SDG#: PH209-01

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	8a SVOCs by EPA 8270D	SW-846 8270D	1	14154SLH026	06/13/2014 06:54	Brian K Graham	1
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14154SLI026	06/10/2014 06:15	Mark A Clark	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	14154SLH026	06/04/2014 09:30	David S Schrum	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14154SLI026	06/04/2014 09:30	David S Schrum	1
10132	24a Energetics by 8330A	SW-846 8330A	1	141550001A	06/06/2014 18:50	James H Place	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	141540008A	06/04/2014 13:25	Lisa A Reinert	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141550002A	06/05/2014 18:43	Richard A Shober	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141530004A	06/09/2014 09:49	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141540027A	06/10/2014 02:06	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141540027A	06/04/2014 07:40	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141530004A	06/02/2014 15:00	Kelli M Barto	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	141540008A	06/03/2014 13:45	Seth A Farrier	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141550002A	06/05/2014 06:15	Maria Davenport	1
11137	Energetics Extraction	SW-846 8330	1	141550001A	06/04/2014 13:15	Wanda F Oswald	1
12934	26a Glycols by EPA 8015C	SW-846 8015B	1	141550013A	06/06/2014 21:01	Tyler O Griffin	1
10318	27a Terphenyls by 8015B	SW-846 8015B	1	141560017A	06/06/2014 15:48	Glorines Suarez-Rivera	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540029A	06/04/2014 22:08	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540030A	06/05/2014 22:57	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540030A	06/04/2014 09:30	David S Schrum	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540029A	06/04/2014 09:30	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	141560017A	06/05/2014 17:00	JoElla L Rice	1
12933	Glycols Sonication Extraction	SW-846 3550C	1	141550013A	06/04/2014 20:00	David V Hershey Jr	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14160002	06/12/2014 20:05	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14160002	06/09/2014 10:50	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1

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Sample Description: SL-651-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483433
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:18 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65105 SDG#: PH209-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06944	Antimony	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1
06951	Chromium	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1
06955	Lead	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1
06958	Manganese	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1
06970	Titanium	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	141540637001	06/04/2014 23:46	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	141540637001B	06/05/2014 07:10	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141540637001A	06/05/2014 07:10	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141540637001A	06/05/2014 07:10	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141540637001A	06/05/2014 07:10	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638001	06/09/2014 09:45	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141540637001	06/04/2014 08:27	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638001	06/05/2014 10:28	James L Mertz	1
05892	2a Chromium VI by EPA 7199	SW-846 7199	1	14155243201A	06/05/2014 17:17	Clinton M Wilson	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14151039401A	05/31/2014 16:00	Luz M Groff	1
02432	Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	14155243201A	06/04/2014 21:20	Daniel S Smith	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14156162401B	06/05/2014 20:03	Scott W Freisher	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-651-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483434
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		ug/kg		ug/kg	ug/kg	ug/kg	
10726	Aniline	62-53-3	520	U	520	170		1
10726	Benzidine	92-87-5	3,500	U	3,500	730		1
10726	Benzo(a)anthracene	56-55-3	4	J	18	3		1
10726	Benzo(a)pyrene	50-32-8	4	J	18	3		1
10726	Benzo(b)fluoranthene	205-99-2	5	J	18	3		1
10726	Benzoic acid	65-85-0	520	U	520	170		1
10726	Benzyl alcohol	100-51-6	520	U	520	170		1
10726	1,1'-Biphenyl	92-52-4	35	U	35	17		1
10726	4-Bromophenyl-phenylether	101-55-3	35	U	35	17		1
10726	Carbazole	86-74-8	35	U	35	17		1
10726	4-Chloro-3-methylphenol	59-50-7	35	U	35	17		1
10726	4-Chloroaniline	106-47-8	35	U	35	17		1
10726	bis(2-Chloroethoxy)methane	111-91-1	35	U	35	17		1
10726	bis(2-Chloroethyl)ether	111-44-4	35	U	35	17		1
10726	bis(2-Chloroisopropyl)ether	39638-32-9	35	U	35	17		1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.							
10726	2-Chloronaphthalene	91-58-7	35	U	35	7		1
10726	2-Chlorophenol	95-57-8	35	U	35	17		1
10726	4-Chlorophenyl-phenylether	7005-72-3	35	U	35	17		1
10726	Dibenzofuran	132-64-9	35	U	35	17		1
10726	1,2-Dichlorobenzene	95-50-1	35	U	35	17		1
10726	1,3-Dichlorobenzene	541-73-1	35	U	35	17		1
10726	1,4-Dichlorobenzene	106-46-7	35	U	35	17		1
10726	3,3'-Dichlorobenzidine	91-94-1	350	U	350	100		1
10726	2,4-Dichlorophenol	120-83-2	35	U	35	17		1
10726	2,6-Dichlorophenol	87-65-0	35	U	35	17		1
10726	2,4-Dimethylphenol	105-67-9	35	U	35	17		1
10726	3,5-Dimethylphenol	108-68-9	170	U	170	35		1
10726	4,6-Dinitro-2-methylphenol	534-52-1	520	U	520	170		1
10726	2,4-Dinitrophenol	51-28-5	1,000	U	1,000	310		1
10726	1,2-Diphenylhydrazine	122-66-7	35	U	35	17		1
10726	Fluoranthene	206-44-0	4	J	18	3		1
10726	Hexachlorobenzene	118-74-1	18	U	18	3		1
10726	Hexachlorobutadiene	87-68-3	35	U	35	17		1
10726	Hexachlorocyclopentadiene	77-47-4	520	U	520	170		1
10726	Hexachloroethane	67-72-1	170	U	170	35		1
10726	Isophorone	78-59-1	35	U	35	17		1
10726	2-Methylphenol	95-48-7	35	U	35	17		1
10726	4-Methylphenol	106-44-5	35	U	35	17		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
10726	NDPA as diphenylamine	n.a.	170	U	170	35		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10726	2-Nitroaniline	88-74-4	35	U	35	17		1
10726	3-Nitroaniline	99-09-2	170	U	170	70		1

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Sample Description: SL-651-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483434
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		ug/kg		ug/kg	ug/kg	ug/kg	
10726	4-Nitroaniline	100-01-6	170	U	170	70		1
10726	Nitrobenzene	98-95-3	35	U	35	17		1
10726	2-Nitrophenol	88-75-5	35	U	35	17		1
10726	4-Nitrophenol	100-02-7	520	U	520	170		1
10726	N-Nitroso-di-n-propylamine	621-64-7	35	U	35	17		1
10726	N-Nitrosodiphenylamine	86-30-6	35	U	35	17		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10726	Pentachlorophenol	87-86-5	180	U	180	35		1
10726	Phenanthrene	85-01-8	4	J	18	3		1
10726	Phenol	108-95-2	35	U	35	17		1
10726	Pyrene	129-00-0	4	J	18	3		1
10726	Pyridine	110-86-1	170	U	170	70		1
10726	1,2,4-Trichlorobenzene	120-82-1	35	U	35	17		1
10726	2,4,5-Trichlorophenol	95-95-4	35	U	35	17		1
10726	2,4,6-Trichlorophenol	88-06-2	35	U	35	17		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: 4,6-dinitro-2-methylphenol 4-nitroaniline							
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/kg		ug/kg	ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70		1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35		1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35		1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5		1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.70		1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.70		1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3		1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3		1
12969	Chrysene	218-01-9	1.7	U	1.7	0.35		1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.70		1
12969	Diethylphthalate	84-66-2	19	U	19	6.3		1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3		1
12969	Fluorene	86-73-7	1.7	U	1.7	0.70		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.70		1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.70		1
12969	2-Methylnaphthalene	91-57-6	0.83	J	1.7	0.70		1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.70		1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70		1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: benzo(e)pyrene							

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Sample Description: SL-651-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483434
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
	The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.							
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2		24.37
Explosives	**SW-846 8330A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	310	U	310	160	10000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	310	U	310	100	10000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	420	U	420	210	10000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	420	U	420	210	10000000	1
10132	1,3-Dinitrobenzene	99-65-0	310	U	310	100	10000000	1
10132	2,4-Dinitrotoluene	121-14-2	310	U	310	100	10000000	1
10132	2,6-Dinitrotoluene	606-20-2	310	U	310	100	10000000	1
10132	HMX	2691-41-0	420	U	420	210	10000000	1
10132	Nitrobenzene	98-95-3	310	U	310	100	10000000	1
10132	Nitroglycerin	55-63-0	2,100	U	2,100	1,000	10000000	1
10132	2-Nitrotoluene	88-72-2	310	U	310	210	10000000	1
10132	3-Nitrotoluene	99-08-1	310	U	310	260	10000000	1
10132	4-Nitrotoluene	99-99-0	310	U	310	210	10000000	1
10132	PETN	78-11-5	2,100	U	2,100	1,000	10000000	1
10132	RDX	121-82-4	310	U	310	140	10000000	1
10132	Tetryl	479-45-8	310	U	310	170	10000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	310	U	310	100	10000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	310	U	310	100	10000000	1
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	38	U	38	13		1
10401	Dalapon	75-99-0	94	U	94	46		1
10401	2,4-DB	94-82-6	18	U	18	6.5		1
10401	Dicamba	1918-00-9	13	U	13	4.2		1
10401	Dinoseb	88-85-7	25	U	25	9.4		1

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Sample Description: SL-651-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483434
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
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CDM Federal Programs Corp.
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65150 SDG#: PH209-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.							
10401	2,4-DP (Dichlorprop)	120-36-5	18	U	18	9.4		1
10401	MCPA	94-74-6	2,600	U	2,600	790		1
10401	MCPP (Mecoprop)	93-65-2	2,600	U	2,600	780		1
10401	2,4,5-T	93-76-5	1.8	U	1.8	0.86		1
10401	2,4,5-TP	93-72-1	1.8	U	1.8	0.78		1
Perchlorate	**SW-846 6850 1/2007**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.2	U	5.2	2.2		1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.87	U	0.87	0.18		1
10590	Alpha BHC	319-84-6	0.87	U	0.87	0.18		1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0		1
10590	Gamma BHC - Lindane	58-89-9	0.87	U	0.87	0.18		1
10590	Chlordane	57-74-9	18	U	18	4.2		1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.35		1
10590	p,p-DDE	72-55-9	1.8	U	1.8	0.35		1
10590	p,p-DDT	50-29-3	1.8	U	1.8	0.37		1
10590	Delta BHC	319-86-8	0.87	U	0.87	0.47		1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.35		1
10590	Endosulfan I	959-98-8	0.87	U	0.87	0.23		1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.35		1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.35		1
10590	Endrin	72-20-8	1.8	U	1.8	0.35		1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.35		1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.63		1
10590	Heptachlor	76-44-8	0.87	U	0.87	0.18		1
10590	Heptachlor Epoxide	1024-57-3	0.87	U	0.87	0.18		1
10590	Methoxychlor	72-43-5	7.0	U	7.0	1.8		1
10590	Mirex	2385-85-5	1.8	U	1.8	0.37		1
10590	Toxaphene	8001-35-2	35	U	35	15		1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10		1
13099	Aroclor 5442	12642-23-8	34	U	34	10		1
13099	Aroclor 5460	11126-42-4	34	U	34	10		1
13099	PCB-1016	12674-11-2	18	U	18	3.4		1
13099	PCB-1221	11104-28-2	18	U	18	5.3		1
13099	PCB-1232	11141-16-5	18	U	18	4.2		1
13099	PCB-1242	53469-21-9	18	U	18	4.2		1
13099	PCB-1248	12672-29-6	18	U	18	3.4		1
13099	PCB-1254	11097-69-1	18	U	18	4.5		1
13099	PCB-1260	11096-82-5	18	U	18	4.0		1
13099	PCB-1262	37324-23-5	18	U	18	3.4		1
13099	PCB-1268	11100-14-4	18	U	18	3.4		1

For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-651-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483434
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC Miscellaneous	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12934	Diethylene glycol	111-46-6	10	U	10	5.2		1
12934	Ethylene glycol	107-21-1	10	U	10	5.2		1
12934	Propylene glycol	57-55-6	10	U	10	5.2		1
12934	Triethylene glycol	112-27-6	10	U	10	5.2		1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	0.18	U	0.18	0.070		1
10318	o-Terphenyl	84-15-1	0.18	U	0.18	0.070		1
10318	p-Terphenyl	92-94-4	0.18	U	0.18	0.070		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1		1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1		1
12952	EFH (C21-C30)	n.a.	4.6	J	5.2	2.1		1
12952	EFH (C30-C40)	n.a.	8.8	J	10	4.2		1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1		1
13197	EFH C12-C14 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
13197	EFH C15-C20 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
13197	EFH C21-C30 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.2		1
13197	EFH C8-C11 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
	The reverse surrogate, capric acid, is present at <1%.							
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	9,500		41.5	7.48		1
06944	Antimony	7440-36-0	4.15	U	4.15	0.768		1
06935	Arsenic	7440-38-2	3.17	J	4.15	0.726		1
06946	Barium	7440-39-3	60.7		1.04	0.0342		1
06947	Beryllium	7440-41-7	0.448	J	1.04	0.0695		1
07914	Boron	7440-42-8	1.75	J	10.4	0.872		1
06949	Cadmium	7440-43-9	1.04	U	1.04	0.0789		1
01650	Calcium	7440-70-2	2,130		20.8	3.47		1
06951	Chromium	7440-47-3	9.38		3.11	0.166		1
06952	Cobalt	7440-48-4	3.45		1.04	0.103		1
06953	Copper	7440-50-8	4.42		2.08	0.301		1
01654	Iron	7439-89-6	16,200		41.5	3.76		1
06955	Lead	7439-92-1	4.95		3.11	0.519		1
01656	Lithium	7439-93-2	22.4		4.2	0.35		1
01657	Magnesium	7439-95-4	3,340		10.4	1.73		1
06958	Manganese	7439-96-5	248		1.04	0.0861		1
06960	Molybdenum	7439-98-7	0.308	J	2.08	0.176		1
06961	Nickel	7440-02-0	5.79		2.08	0.135		1
10145	Phosphorus	7723-14-0	334		10.4	3.00		1
01662	Potassium	7440-09-7	2,840		104	8.66		1
01667	Sodium	7440-23-5	71.3	J	104	17.3		1
06969	Tin	7440-31-5	2.63	J	10.4	0.228		1

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Sample Description: SL-651-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483434
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
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CDM Federal Programs Corp.
3201 Jermantown Road
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Fairfax VA 22030

65150 SDG#: PH209-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06970	Titanium	7440-32-6	878		1.04	0.176		1
06971	Vanadium	7440-62-2	20.9		1.04	0.135		1
06972	Zinc	7440-66-6	56.7		4.15	0.208		1
10146	Zirconium	7440-67-7	1.94	J	5.19	0.872		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.415	U	0.415	0.104		2
06142	Silver	7440-22-4	0.208	U	0.208	0.0270		2
06144	Strontium	7440-24-6	9.45		0.415	0.0706		2
06145	Thallium	7440-28-0	0.227		0.208	0.0311		2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0165	U	0.0165	0.0099		1
Wet Chemistry	**SW-846 7199**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05892	2a Chromium VI by EPA 7199	18540-29-9	0.42	U	0.42	0.15		1
	SW-846 9045D modified		**Std. Units**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.85		0.0100	0.0100		1
	The pH was measured in water at 21.6 C.							
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.6		0.10	0.10		1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.							

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65150 SDG#: PH209-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0610	JQ	1.02	0.0372		1
11031	12378-PeCDD	40321-76-4	0.0418	JB	5.11	0.0323		1
11031	123478-HxCDD	39227-28-6	0.0344	JBQ	5.11	0.0243		1
11031	123678-HxCDD	57653-85-7	0.0769	JBQ	5.11	0.0263		1
11031	123789-HxCDD	19408-74-3	0.0679	JBQ	5.11	0.0242		1
11031	1234678-HpCDD	35822-46-9	2.10	JB	5.11	0.0291		1
11031	OCDD	3268-87-9	13.8	B	10.2	0.0262		1
11031	2378-TCDF	51207-31-9	1.02	U	1.02	0.0337		1
11031	12378-PeCDF	57117-41-6	0.147	JB	5.11	0.0190		1
11031	23478-PeCDF	57117-31-4	0.163	JBQ	5.11	0.0193		1
11031	123478-HxCDF	70648-26-9	0.0936	JB	5.11	0.0244		1
11031	123678-HxCDF	57117-44-9	0.0888	JBQ	5.11	0.0231		1
11031	123789-HxCDF	72918-21-9	5.11	U	5.11	0.0270		1
11031	234678-HxCDF	60851-34-5	0.0792	JB	5.11	0.0226		1
11031	1234678-HpCDF	67562-39-4	0.321	JB	5.11	0.0147		1
11031	1234789-HpCDF	55673-89-7	0.106	JBQ	5.11	0.0227		1
11031	OCDF	39001-02-0	0.634	JB	10.2	0.0345		1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0920					1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	101	25 - 164
13C12-12378-PeCDD	104	25 - 181
13C12-123478-HxCDD	95	32 - 141
13C12-123678-HxCDD	93	28 - 130
13C12-123789-HxCDD	98	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	77	17 - 157
13C12-2378-TCDF	99	24 - 169
13C12-12378-PeCDF	112	24 - 185
13C12-23478-PeCDF	106	21 - 178
13C12-123478-HxCDF	88	26 - 152
13C12-123678-HxCDF	96	26 - 123
13C12-234678-HxCDF	92	28 - 136
13C12-123789-HxCDF	86	29 - 147
13C12-1234678-HpCDF	99	28 - 143
13C12-1234789-HpCDF	71	26 - 138
13C12-OCDF	55	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

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Sample Description: SL-651-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483434
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

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65150 SDG#: PH209-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Action Limit	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

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Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02BKG

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	8a SVOCs by EPA 8270D	SW-846 8270D	1	14154SLH026	06/13/2014 05:36	Brian K Graham	1
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14154SLI026	06/10/2014 04:38	Mark A Clark	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	14154SLH026	06/04/2014 09:30	David S Schrum	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14154SLI026	06/04/2014 09:30	David S Schrum	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14154A16A	06/04/2014 00:16	Laura M Krieger	24.37
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201415134672	05/31/2014 16:40	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201415134672	05/31/2014 16:40	Mitchell R Washel	n.a.
10132	24a Energetics by 8330A	SW-846 8330A	1	141550001A	06/06/2014 19:32	James H Place	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	141540008A	06/04/2014 13:52	Lisa A Reinert	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141550002A	06/05/2014 18:56	Richard A Shober	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141530004A	06/09/2014 10:57	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141540027A	06/10/2014 02:25	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141540027A	06/04/2014 07:40	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141530004A	06/02/2014 15:00	Kelli M Barto	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	141540008A	06/03/2014 13:45	Seth A Farrier	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141550002A	06/05/2014 06:15	Maria Davenport	1
11137	Energetics Extraction	SW-846 8330	1	141550001A	06/04/2014 13:15	Wanda F Oswald	1
12934	26a Glycols by EPA 8015C	SW-846 8015B	1	141550013A	06/06/2014 21:16	Tyler O Griffin	1
10318	27a Terphenyls by 8015B	SW-846 8015B	1	141560017A	06/06/2014 14:41	Glorines Suarez-Rivera	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540029A	06/04/2014 22:30	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540030A	06/05/2014 23:18	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540030A	06/04/2014 09:30	David S Schrum	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540029A	06/04/2014 09:30	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	141560017A	06/05/2014 17:00	JoElla L Rice	1
12933	Glycols Sonication Extraction	SW-846 3550C	1	141550013A	06/04/2014 20:00	David V Hershey Jr	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-651-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483434
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14160002	06/13/2014 02:56	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14160002	06/09/2014 10:50	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141540637001	06/04/2014 22:11	John W Yanzuk II	1
06944	Antimony	SW-846 6010C	1	141540637001	06/04/2014 22:11	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	141540637001	06/04/2014 22:11	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	141540637001	06/04/2014 22:11	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	141540637001	06/04/2014 22:11	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	141540637001	06/04/2014 22:11	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	141540637001	06/04/2014 22:11	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	141540637001	06/05/2014 11:22	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141540637001	06/04/2014 22:11	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	141540637001	06/04/2014 22:11	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	141540637001	06/04/2014 22:11	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	141540637001	06/04/2014 22:11	John W Yanzuk II	1
06955	Lead	SW-846 6010C	1	141540637001	06/04/2014 22:11	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	141540637001	06/04/2014 22:11	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	141540637001	06/04/2014 22:11	John W Yanzuk II	1
06958	Manganese	SW-846 6010C	1	141540637001	06/04/2014 22:11	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	141540637001	06/04/2014 22:11	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	141540637001	06/04/2014 22:11	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010C	1	141540637001	06/04/2014 22:11	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	141540637001	06/04/2014 22:11	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	141540637001	06/04/2014 22:11	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	141540637001	06/04/2014 22:11	John W Yanzuk II	1
06970	Titanium	SW-846 6010C	1	141540637001	06/04/2014 22:11	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	141540637001	06/04/2014 22:11	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	141540637001	06/04/2014 22:11	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	141540637001	06/04/2014 22:11	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	141540637001B	06/05/2014 06:13	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141540637001A	06/05/2014 06:13	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141540637001A	06/05/2014 06:13	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141540637001A	06/05/2014 06:13	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638001	06/09/2014 09:47	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141540637001	06/04/2014 08:27	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638001	06/05/2014 10:28	James L Mertz	1
05892	2a Chromium VI by EPA 7199	SW-846 7199	1	14155243201A	06/05/2014 16:46	Clinton M Wilson	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14151039401A	05/31/2014 16:00	Luz M Groff	1
02432	Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	14155243201A	06/04/2014 21:20	Daniel S Smith	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14156162401B	06/05/2014 20:03	Scott W Freisher	1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-651-SA5C-TR-5.0 SS Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483435
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02SS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Wet Chemistry	**SW-846 7199**		mg/kg	mg/kg	mg/kg	mg/kg	
05892	2a Chromium VI by EPA 7199	18540-29-9	33.3	2.1	0.73		5
Wet Chemistry	**EPA 160.3 modified**		%	%	%	%	
11625	14a Moisture Content by 160.3	n.a.	4.6	0.10	0.10		1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05892	2a Chromium VI by EPA 7199	SW-846 7199	2	14155243201A	06/05/2014 16:38	Clinton M Wilson	5
02432	Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	14155243201A	06/04/2014 21:20	Daniel S Smith	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14156162401B	06/05/2014 20:03	Scott W Freisher	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-651-SA5C-TR-5.0 IS Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483436
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02IS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Wet Chemistry	**SW-846 7199**		mg/kg	mg/kg	mg/kg	mg/kg	
05892	2a Chromium VI by EPA 7199	18540-29-9	768	40.9	14.3		100
Wet Chemistry	**EPA 160.3 modified**		%	%	%	%	
11625	14a Moisture Content by 160.3	n.a.	4.6	0.10	0.10		1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05892	2a Chromium VI by EPA 7199	SW-846 7199	1	14155243201A	06/05/2014 17:33	Clinton M Wilson	100
02432	Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	14155243201A	06/04/2014 21:20	Daniel S Smith	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14156162401B	06/05/2014 20:03	Scott W Freisher	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-651-SA5C-TR-5.0 PDS Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483437
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02PDS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Wet Chemistry	**SW-846 7199**		mg/kg	mg/kg	mg/kg	mg/kg	
05892	2a Chromium VI by EPA 7199	18540-29-9	43.9	4.2	1.5		10
Wet Chemistry	**EPA 160.3 modified**		%	%	%	%	
11625	14a Moisture Content by 160.3	n.a.	4.6	0.10	0.10		1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05892	2a Chromium VI by EPA 7199	SW-846 7199	2	14155243201A	06/05/2014 17:57	Clinton M Wilson	10
02432	Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	14155243201A	06/04/2014 21:20	Daniel S Smith	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14156162401B	06/05/2014 20:03	Scott W Freisher	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-651-SA5C-TR-5.0 MS Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483438
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270D			ug/kg		ug/kg	ug/kg	ug/kg	
10726	Acenaphthene	83-32-9	1,500		18	3		1
10726	Acenaphthylene	208-96-8	1,600		18	3		1
10726	Aniline	62-53-3	1,100		520	170		1
10726	Anthracene	120-12-7	1,600		18	3		1
10726	Benzidine	92-87-5	1,300	J	3,500	730		1
10726	Benzo(a)anthracene	56-55-3	1,600		18	3		1
10726	Benzo(a)pyrene	50-32-8	1,700		18	3		1
10726	Benzo(b)fluoranthene	205-99-2	1,500		18	3		1
10726	Benzo(g,h,i)perylene	191-24-2	1,700		18	3		1
10726	Benzo(k)fluoranthene	207-08-9	1,600		18	3		1
10726	Benzoic acid	65-85-0	2,600		520	170		1
10726	Benzyl alcohol	100-51-6	1,600		520	170		1
10726	1,1'-Biphenyl	92-52-4	1,600		35	17		1
10726	4-Bromophenyl-phenylether	101-55-3	1,600		35	17		1
10726	Butylbenzylphthalate	85-68-7	1,600		170	70		1
10726	Di-n-butylphthalate	84-74-2	1,600		170	70		1
10726	Carbazole	86-74-8	1,500		35	17		1
10726	4-Chloro-3-methylphenol	59-50-7	1,500		35	17		1
10726	4-Chloroaniline	106-47-8	760		35	17		1
10726	bis(2-Chloroethoxy)methane	111-91-1	1,500		35	17		1
10726	bis(2-Chloroethyl)ether	111-44-4	1,500		35	17		1
10726	bis(2-Chloroisopropyl)ether	39638-32-9	1,500		35	17		1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.							
10726	2-Chloronaphthalene	91-58-7	1,600		35	7		1
10726	2-Chlorophenol	95-57-8	1,500		35	17		1
10726	4-Chlorophenyl-phenylether	7005-72-3	1,600		35	17		1
10726	Chrysene	218-01-9	1,600		18	3		1
10726	Dibenz(a,h)anthracene	53-70-3	1,700		18	3		1
10726	Dibenzofuran	132-64-9	1,500		35	17		1
10726	1,2-Dichlorobenzene	95-50-1	1,500		35	17		1
10726	1,3-Dichlorobenzene	541-73-1	1,500		35	17		1
10726	1,4-Dichlorobenzene	106-46-7	1,500		35	17		1
10726	3,3'-Dichlorobenzidine	91-94-1	660		350	100		1
10726	2,4-Dichlorophenol	120-83-2	1,600		35	17		1
10726	2,6-Dichlorophenol	87-65-0	35	U	35	17		1
10726	Diethylphthalate	84-66-2	1,500		170	70		1
10726	2,4-Dimethylphenol	105-67-9	1,500		35	17		1
10726	3,5-Dimethylphenol	108-68-9	1,900		170	35		1
10726	Dimethylphthalate	131-11-3	1,500		170	70		1
10726	4,6-Dinitro-2-methylphenol	534-52-1	1,300		520	170		1
10726	2,4-Dinitrophenol	51-28-5	2,000		1,000	310		1
10726	1,2-Diphenylhydrazine	122-66-7	1,500		35	17		1
10726	bis(2-Ethylhexyl)phthalate	117-81-7	1,600		180	70		1
10726	Fluoranthene	206-44-0	1,600		18	3		1
10726	Fluorene	86-73-7	1,500		18	3		1
10726	Hexachlorobenzene	118-74-1	1,700		18	3		1
10726	Hexachlorobutadiene	87-68-3	1,700		35	17		1
10726	Hexachlorocyclopentadiene	77-47-4	3,400		520	170		1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-651-SA5C-TR-5.0 MS Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483438
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		ug/kg	ug/kg	ug/kg	ug/kg	
10726	Hexachloroethane	67-72-1	1,500	170	35		1
10726	Indeno(1,2,3-cd)pyrene	193-39-5	1,700	18	3		1
10726	Isophorone	78-59-1	1,600	35	17		1
10726	1-Methylnaphthalene	90-12-0	1,500	18	3		1
10726	2-Methylnaphthalene	91-57-6	1,500	18	3		1
10726	2-Methylphenol	95-48-7	1,500	35	17		1
10726	4-Methylphenol	106-44-5	1,400	35	17		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
10726	Naphthalene	91-20-3	1,500	18	3		1
10726	NDPA as diphenylamine	n.a.	1,500	170	35		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
10726	2-Nitroaniline	88-74-4	1,600	35	17		1
10726	3-Nitroaniline	99-09-2	1,400	170	70		1
10726	4-Nitroaniline	100-01-6	1,200	170	70		1
10726	Nitrobenzene	98-95-3	1,500	35	17		1
10726	2-Nitrophenol	88-75-5	1,700	35	17		1
10726	4-Nitrophenol	100-02-7	1,300	520	170		1
10726	N-Nitrosodimethylamine	62-75-9	1,500	170	70		1
10726	N-Nitroso-di-n-propylamine	621-64-7	1,400	35	17		1
10726	N-Nitrosodiphenylamine	86-30-6	1,600	35	17		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
10726	Di-n-octylphthalate	117-84-0	1,800	170	70		1
10726	Pentachlorophenol	87-86-5	1,500	180	35		1
10726	Phenanthrene	85-01-8	1,500	18	3		1
10726	Phenol	108-95-2	1,500	35	17		1
10726	Pyrene	129-00-0	1,500	18	3		1
10726	Pyridine	110-86-1	1,300	170	70		1
10726	1,2,4-Trichlorobenzene	120-82-1	1,700	35	17		1
10726	2,4,5-Trichlorophenol	95-95-4	1,600	35	17		1
10726	2,4,6-Trichlorophenol	88-06-2	1,700	35	17		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: 4,6-dinitro-2-methylphenol 4-nitroaniline						
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/kg	ug/kg	ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	33	1.7	0.70		1
12969	Acenaphthylene	208-96-8	34	1.7	0.35		1
12969	Anthracene	120-12-7	35	1.7	0.35		1
12969	Benzo(a)anthracene	56-55-3	34	1.7	0.70		1
12969	Benzo(a)pyrene	50-32-8	30	1.7	0.70		1
12969	Benzo(b)fluoranthene	205-99-2	34	1.7	0.70		1
12969	Benzo(e)pyrene	192-97-2	27	18	3.5		1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-651-SA5C-TR-5.0 MS Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483438
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
12969	Benzo(g,h,i)perylene	191-24-2	29		1.7	0.70		1
12969	Benzo(k)fluoranthene	207-08-9	27		1.7	0.70		1
12969	Butylbenzylphthalate	85-68-7	34		19	6.3		1
12969	Di-n-butylphthalate	84-74-2	34		19	6.3		1
12969	Chrysene	218-01-9	32		1.7	0.35		1
12969	Dibenz(a,h)anthracene	53-70-3	32		1.7	0.70		1
12969	Diethylphthalate	84-66-2	28		19	6.3		1
12969	Dimethylphthalate	131-11-3	31		19	6.3		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	36		19	6.3		1
12969	Fluoranthene	206-44-0	33		1.7	0.70		1
12969	Fluorene	86-73-7	32		1.7	0.70		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	34		1.7	0.70		1
12969	1-Methylnaphthalene	90-12-0	33		1.7	0.70		1
12969	2-Methylnaphthalene	91-57-6	35		1.7	0.70		1
12969	Naphthalene	91-20-3	34		1.7	0.70		1
12969	N-Nitrosodimethylamine	62-75-9	29		1.7	0.70		1
12969	Di-n-octylphthalate	117-84-0	36		19	6.3		1
12969	Phenanthrene	85-01-8	35		1.7	0.70		1
12969	Pyrene	129-00-0	29		1.7	0.70		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: benzo(e)pyrene							
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	8.3		1.0	0.2		24.7
Explosives	**SW-846 8330A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	5,300		310	160		1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	4,700		310	100		1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	420	U	420	210		1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	420	U	420	210		1
10132	1,3-Dinitrobenzene	99-65-0	5,300		310	100		1
10132	2,4-Dinitrotoluene	121-14-2	5,200		310	100		1
10132	2,6-Dinitrotoluene	606-20-2	5,000		310	100		1
10132	HMX	2691-41-0	5,000		420	210		1
10132	Nitrobenzene	98-95-3	4,800		310	100		1
10132	Nitroglycerin	55-63-0	19,000		2,100	1,000		1
10132	2-Nitrotoluene	88-72-2	5,000		310	210		1
10132	3-Nitrotoluene	99-08-1	4,800		310	260		1
10132	4-Nitrotoluene	99-99-0	4,800		310	210		1
10132	PETN	78-11-5	41,000		2,100	1,000		1
10132	RDX	121-82-4	5,000		310	140		1
10132	Tetryl	479-45-8	4,100		310	170		1
10132	1,3,5-Trinitrobenzene	99-35-4	5,200		310	100		1
10132	2,4,6-Trinitrotoluene	118-96-7	4,800		310	100		1
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	

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Sample Description: SL-651-SA5C-TR-5.0 MS Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483438
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
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65150 SDG#: PH209-02MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	96		37	12		1
10401	Dalapon	75-99-0	94	U	94	46		1
10401	2,4-DB	94-82-6	99		18	6.5		1
10401	Dicamba	1918-00-9	8.7	J	12	4.2		1
10401	Dinoseb	88-85-7	17	J	25	9.4		1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.							
10401	2,4-DP (Dichlorprop)	120-36-5	120		18	9.4		1
10401	MCPA	94-74-6	7,700		2,600	790		1
10401	MCPP (Mecoprop)	93-65-2	7,400		2,600	780		1
10401	2,4,5-T	93-76-5	11		1.8	0.85		1
10401	2,4,5-TP	93-72-1	10		1.8	0.78		1
Perchlorate	**SW-846 6850 1/2007**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
06557	6a Perchlorate (Method 6850)	14797-73-0	110		5.2	2.2		1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	3.3		0.87	0.18		1
10590	Alpha BHC	319-84-6	3.3		0.87	0.18		1
10590	Beta BHC	319-85-7	3.4		2.0	1.0		1
10590	Gamma BHC - Lindane	58-89-9	3.5		0.87	0.18		1
10590	Chlordane	57-74-9	18	U	18	4.2		1
10590	p,p-DDD	72-54-8	8.3		1.8	0.35		1
10590	p,p-DDE	72-55-9	7.9		1.8	0.35		1
10590	p,p-DDT	50-29-3	8.1		1.8	0.37		1
10590	Delta BHC	319-86-8	3.5		0.87	0.47		1
10590	Dieldrin	60-57-1	7.4		1.8	0.35		1
10590	Endosulfan I	959-98-8	3.4		0.87	0.23		1
10590	Endosulfan II	33213-65-9	6.8		1.8	0.35		1
10590	Endosulfan Sulfate	1031-07-8	6.7		1.8	0.35		1
10590	Endrin	72-20-8	7.5		1.8	0.35		1
10590	Endrin Aldehyde	7421-93-4	6.4		1.8	0.35		1
10590	Endrin Ketone	53494-70-5	6.5		1.9	0.63		1
10590	Heptachlor	76-44-8	3.5		0.87	0.18		1
10590	Heptachlor Epoxide	1024-57-3	3.5		0.87	0.18		1
10590	Methoxychlor	72-43-5	40		7.0	1.8		1
10590	Mirex	2385-85-5	1.8	U	1.8	0.37		1
10590	Toxaphene	8001-35-2	35	U	35	15		1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10		1
13099	Aroclor 5442	12642-23-8	34	U	34	10		1
13099	Aroclor 5460	11126-42-4	34	U	34	10		1
13099	PCB-1016	12674-11-2	200		18	3.4		1
13099	PCB-1221	11104-28-2	18	U	18	5.3		1
13099	PCB-1232	11141-16-5	18	U	18	4.2		1
13099	PCB-1242	53469-21-9	18	U	18	4.2		1
13099	PCB-1248	12672-29-6	18	U	18	3.4		1
13099	PCB-1254	11097-69-1	18	U	18	4.5		1
13099	PCB-1260	11096-82-5	210		18	4.0		1

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SSFL Phase 3 Subarea 5C

LL Sample # SW 7483438
LL Group # 1478425
Account # 13013

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CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
13099	PCB-1262	37324-23-5	18	U	18	3.4		1
13099	PCB-1268	11100-14-4	18	U	18	3.4		1
	For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.							
GC Miscellaneous	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12934	Diethylene glycol	111-46-6	45		10	5.2		1
12934	Ethylene glycol	107-21-1	180		10	5.2		1
12934	Propylene glycol	57-55-6	190		10	5.2		1
12934	Triethylene glycol	112-27-6	6.3	J	10	5.2		1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	2.4		0.18	0.070		1
10318	o-Terphenyl	84-15-1	2.4		0.18	0.070		1
10318	p-Terphenyl	92-94-4	2.3		0.18	0.070		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.0	J	5.2	2.1		1
12952	EFH (C15-C20)	n.a.	8.4		5.2	2.1		1
12952	EFH (C21-C30)	n.a.	17		5.2	2.1		1
12952	EFH (C30-C40)	n.a.	18		10	4.2		1
12952	EFH (C8-C11)	n.a.	4.7	J	5.2	2.1		1
13197	EFH C12-C14 w/ SiGel	n.a.	3.9	J	5.2	2.1		1
13197	EFH C15-C20 w/ SiGel	n.a.	6.2		5.2	2.1		1
13197	EFH C21-C30 w/ SiGel	n.a.	20		5.2	2.1		1
13197	EFH C30-C40 w/ SiGel	n.a.	11		10	4.2		1
13197	EFH C8-C11 w/ SiGel	n.a.	2.8	J	5.2	2.1		1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	10,700		40.3	7.27		1
06944	Antimony	7440-36-0	35.9		4.03	0.746		1
06935	Arsenic	7440-38-2	17.8		4.03	0.706		1
06946	Barium	7440-39-3	257		1.01	0.0333		1
06947	Beryllium	7440-41-7	5.52		1.01	0.0675		1
07914	Boron	7440-42-8	192		10.1	0.847		1
06949	Cadmium	7440-43-9	4.97		1.01	0.0766		1
01650	Calcium	7440-70-2	2,270		20.2	3.37		1
06951	Chromium	7440-47-3	27.9		3.02	0.161		1
06952	Cobalt	7440-48-4	52.4		1.01	0.0998		1
06953	Copper	7440-50-8	29.5		2.02	0.292		1
01654	Iron	7439-89-6	15,200		40.3	3.65		1
06955	Lead	7439-92-1	18.9		3.02	0.504		1
01656	Lithium	7439-93-2	126		4.0	0.34		1
01657	Magnesium	7439-95-4	3,430		10.1	1.68		1

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65150 SDG#: PH209-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
06958	Manganese	7439-96-5	281	1.01	0.0837		1
06960	Molybdenum	7439-98-7	196	2.02	0.171		1
06961	Nickel	7440-02-0	54.9	2.02	0.131		1
10145	Phosphorus	7723-14-0	409	10.1	2.91		1
01662	Potassium	7440-09-7	4,010	101	8.41		1
01667	Sodium	7440-23-5	1,070	101	16.8		1
06969	Tin	7440-31-5	375	10.1	0.222		1
06970	Titanium	7440-32-6	1,100	1.01	0.171		1
06971	Vanadium	7440-62-2	71.4	1.01	0.131		1
06972	Zinc	7440-66-6	105	4.03	0.202		1
10146	Zirconium	7440-67-7	104	5.04	0.847		1
	SW-846 6020A		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.14	0.403	0.101		2
06142	Silver	7440-22-4	10.2	0.202	0.0262		2
06144	Strontium	7440-24-6	17.3	0.403	0.0685		2
06145	Thallium	7440-28-0	0.643	0.202	0.0302		2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.188	0.0171	0.0103		1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	4.6	0.10	0.10		1

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CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		ng/kg		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	18.3		0.999	0.0783		1
11031	12378-PeCDD	40321-76-4	93.7	B	5.00	0.0609		1
11031	123478-HxCDD	39227-28-6	95.1	B	5.00	0.0459		1
11031	123678-HxCDD	57653-85-7	93.0	B	5.00	0.0471		1
11031	123789-HxCDD	19408-74-3	92.9	B	5.00	0.0447		1
11031	1234678-HpCDD	35822-46-9	92.2	B	5.00	0.0673		1
11031	OCDD	3268-87-9	176	B	9.99	0.0554		1
11031	2378-TCDF	51207-31-9	19.8		0.999	0.0703		1
11031	12378-PeCDF	57117-41-6	92.9	B	5.00	0.0432		1
11031	23478-PeCDF	57117-31-4	93.3	B	5.00	0.0421		1
11031	123478-HxCDF	70648-26-9	93.5	B	5.00	0.0796		1
11031	123678-HxCDF	57117-44-9	94.8	B	5.00	0.0728		1
11031	123789-HxCDF	72918-21-9	94.1	B	5.00	0.0873		1
11031	234678-HxCDF	60851-34-5	93.6	B	5.00	0.0744		1
11031	1234678-HpCDF	67562-39-4	90.1	B	5.00	0.0466		1
11031	1234789-HpCDF	55673-89-7	90.7	B	5.00	0.0694		1
11031	OCDF	39001-02-0	181	B	9.99	0.0617		1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	81	25 - 164
13C12-12378-PeCDD	96	25 - 181
13C12-123478-HxCDD	88	32 - 141
13C12-123678-HxCDD	88	28 - 130
13C12-123789-HxCDD	91	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	79	17 - 157
13C12-2378-TCDF	81	24 - 169
13C12-12378-PeCDF	97	24 - 185
13C12-23478-PeCDF	95	21 - 178
13C12-123478-HxCDF	79	26 - 152
13C12-123678-HxCDF	88	26 - 123
13C12-234678-HxCDF	83	28 - 136
13C12-123789-HxCDF	80	29 - 147
13C12-1234678-HpCDF	100	28 - 143
13C12-1234789-HpCDF	73	26 - 138
13C12-OCDF	64	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

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Sample Description: SL-651-SA5C-TR-5.0 MS Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483438
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CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Action Limit	Dilution Factor
S	*Saturation of detection signal*						

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General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	8a SVOCs by EPA 8270D	SW-846 8270D	1	14154SLH026	06/13/2014 06:02	Brian K Graham	1
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14154SLI026	06/10/2014 05:10	Mark A Clark	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	14154SLH026	06/04/2014 09:30	David S Schrum	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14154SLI026	06/04/2014 09:30	David S Schrum	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14154A16A	06/04/2014 00:53	Laura M Krieger	24.7
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201415134672	05/31/2014 16:41	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201415134672	05/31/2014 16:41	Mitchell R Washel	n.a.
10132	24a Energetics by 8330A	SW-846 8330A	1	141550001A	06/06/2014 20:15	James H Place	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	141540008A	06/04/2014 14:18	Lisa A Reinert	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141550002A	06/05/2014 19:21	Richard A Shober	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141530004A	06/09/2014 11:11	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141540027A	06/10/2014 02:43	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141540027A	06/04/2014 07:40	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141530004A	06/02/2014 15:00	Kelli M Barto	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	141540008A	06/03/2014 13:45	Seth A Farrier	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141550002A	06/05/2014 06:15	Maria Davenport	1
11137	Energetics Extraction	SW-846 8330	1	141550001A	06/04/2014 13:15	Wanda F Oswald	1
12934	26a Glycols by EPA 8015C	SW-846 8015B	1	141550013A	06/06/2014 23:15	Tyler O Griffin	1
10318	27a Terphenyls by 8015B	SW-846 8015B	1	141560017A	06/06/2014 15:04	Glorines Suarez-Rivera	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540029A	06/04/2014 22:51	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540030A	06/05/2014 23:40	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540030A	06/04/2014 09:30	David S Schrum	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540029A	06/04/2014 09:30	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	141560017A	06/05/2014 17:00	JoElla L Rice	1
12933	Glycols Sonication Extraction	SW-846 3550C	1	141550013A	06/04/2014 20:00	David V Hershey Jr	1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-651-SA5C-TR-5.0 MS Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483438
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14160002	06/13/2014 03:53	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14160002	06/09/2014 10:50	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141540637001	06/04/2014 22:23	John W Yanzuk II	1
06944	Antimony	SW-846 6010C	1	141540637001	06/04/2014 22:23	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	141540637001	06/04/2014 22:23	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	141540637001	06/04/2014 22:23	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	141540637001	06/04/2014 22:23	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	141540637001	06/04/2014 22:23	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	141540637001	06/04/2014 22:23	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	141540637001	06/05/2014 11:34	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141540637001	06/04/2014 22:23	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	141540637001	06/04/2014 22:23	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	141540637001	06/04/2014 22:23	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	141540637001	06/04/2014 22:23	John W Yanzuk II	1
06955	Lead	SW-846 6010C	1	141540637001	06/04/2014 22:23	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	141540637001	06/04/2014 22:23	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	141540637001	06/04/2014 22:23	John W Yanzuk II	1
06958	Manganese	SW-846 6010C	1	141540637001	06/04/2014 22:23	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	141540637001	06/04/2014 22:23	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	141540637001	06/04/2014 22:23	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010C	1	141540637001	06/04/2014 22:23	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	141540637001	06/04/2014 22:23	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	141540637001	06/04/2014 22:23	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	141540637001	06/04/2014 22:23	John W Yanzuk II	1
06970	Titanium	SW-846 6010C	1	141540637001	06/04/2014 22:23	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	141540637001	06/04/2014 22:23	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	141540637001	06/04/2014 22:23	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	141540637001	06/04/2014 22:23	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	141540637001B	06/05/2014 06:20	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141540637001A	06/05/2014 06:20	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141540637001A	06/05/2014 06:20	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141540637001A	06/05/2014 06:20	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638001	06/09/2014 09:57	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141540637001	06/04/2014 08:27	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638001	06/05/2014 10:28	James L Mertz	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14156162401B	06/05/2014 20:03	Scott W Freisher	1

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Sample Description: SL-651-SA5C-TR-5.0 MSD Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483439
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270D			ug/kg		ug/kg	ug/kg	ug/kg	
10726	Acenaphthene	83-32-9	1,500		18	3		1
10726	Acenaphthylene	208-96-8	1,600		18	3		1
10726	Aniline	62-53-3	1,200		520	170		1
10726	Anthracene	120-12-7	1,600		18	3		1
10726	Benzidine	92-87-5	1,500	J	3,500	730		1
10726	Benzo(a)anthracene	56-55-3	1,600		18	3		1
10726	Benzo(a)pyrene	50-32-8	1,700		18	3		1
10726	Benzo(b)fluoranthene	205-99-2	1,600		18	3		1
10726	Benzo(g,h,i)perylene	191-24-2	1,700		18	3		1
10726	Benzo(k)fluoranthene	207-08-9	1,600		18	3		1
10726	Benzoic acid	65-85-0	2,700		520	170		1
10726	Benzyl alcohol	100-51-6	1,700		520	170		1
10726	1,1'-Biphenyl	92-52-4	1,600		35	17		1
10726	4-Bromophenyl-phenylether	101-55-3	1,600		35	17		1
10726	Butylbenzylphthalate	85-68-7	1,500		170	70		1
10726	Di-n-butylphthalate	84-74-2	1,600		170	70		1
10726	Carbazole	86-74-8	1,500		35	17		1
10726	4-Chloro-3-methylphenol	59-50-7	1,500		35	17		1
10726	4-Chloroaniline	106-47-8	1,200		35	17		1
10726	bis(2-Chloroethoxy)methane	111-91-1	1,500		35	17		1
10726	bis(2-Chloroethyl)ether	111-44-4	1,500		35	17		1
10726	bis(2-Chloroisopropyl)ether	39638-32-9	1,500		35	17		1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.							
10726	2-Chloronaphthalene	91-58-7	1,500		35	7		1
10726	2-Chlorophenol	95-57-8	1,600		35	17		1
10726	4-Chlorophenyl-phenylether	7005-72-3	1,600		35	17		1
10726	Chrysene	218-01-9	1,600		18	3		1
10726	Dibenz(a,h)anthracene	53-70-3	1,800		18	3		1
10726	Dibenzofuran	132-64-9	1,500		35	17		1
10726	1,2-Dichlorobenzene	95-50-1	1,500		35	17		1
10726	1,3-Dichlorobenzene	541-73-1	1,500		35	17		1
10726	1,4-Dichlorobenzene	106-46-7	1,500		35	17		1
10726	3,3'-Dichlorobenzidine	91-94-1	1,100		350	100		1
10726	2,4-Dichlorophenol	120-83-2	1,700		35	17		1
10726	2,6-Dichlorophenol	87-65-0	35	U	35	17		1
10726	Diethylphthalate	84-66-2	1,500		170	70		1
10726	2,4-Dimethylphenol	105-67-9	1,500		35	17		1
10726	3,5-Dimethylphenol	108-68-9	2,000		170	35		1
10726	Dimethylphthalate	131-11-3	1,500		170	70		1
10726	4,6-Dinitro-2-methylphenol	534-52-1	1,100		520	170		1
10726	2,4-Dinitrophenol	51-28-5	1,500		1,000	310		1
10726	1,2-Diphenylhydrazine	122-66-7	1,500		35	17		1
10726	bis(2-Ethylhexyl)phthalate	117-81-7	1,600		180	70		1
10726	Fluoranthene	206-44-0	1,600		18	3		1
10726	Fluorene	86-73-7	1,500		18	3		1
10726	Hexachlorobenzene	118-74-1	1,700		18	3		1
10726	Hexachlorobutadiene	87-68-3	1,700		35	17		1
10726	Hexachlorocyclopentadiene	77-47-4	3,300		520	170		1

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Sample Description: SL-651-SA5C-TR-5.0 MSD Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483439
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		ug/kg	ug/kg	ug/kg	ug/kg	
10726	Hexachloroethane	67-72-1	1,500	170	35		1
10726	Indeno(1,2,3-cd)pyrene	193-39-5	1,700	18	3		1
10726	Isophorone	78-59-1	1,600	35	17		1
10726	1-Methylnaphthalene	90-12-0	1,500	18	3		1
10726	2-Methylnaphthalene	91-57-6	1,500	18	3		1
10726	2-Methylphenol	95-48-7	1,600	35	17		1
10726	4-Methylphenol	106-44-5	1,500	35	17		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
10726	Naphthalene	91-20-3	1,500	18	3		1
10726	NDPA as diphenylamine	n.a.	1,600	170	35		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
10726	2-Nitroaniline	88-74-4	1,700	35	17		1
10726	3-Nitroaniline	99-09-2	1,500	170	70		1
10726	4-Nitroaniline	100-01-6	1,200	170	70		1
10726	Nitrobenzene	98-95-3	1,500	35	17		1
10726	2-Nitrophenol	88-75-5	1,700	35	17		1
10726	4-Nitrophenol	100-02-7	1,300	520	170		1
10726	N-Nitrosodimethylamine	62-75-9	1,600	170	70		1
10726	N-Nitroso-di-n-propylamine	621-64-7	1,400	35	17		1
10726	N-Nitrosodiphenylamine	86-30-6	1,600	35	17		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
10726	Di-n-octylphthalate	117-84-0	1,800	170	70		1
10726	Pentachlorophenol	87-86-5	1,500	180	35		1
10726	Phenanthrene	85-01-8	1,500	18	3		1
10726	Phenol	108-95-2	1,500	35	17		1
10726	Pyrene	129-00-0	1,500	18	3		1
10726	Pyridine	110-86-1	1,400	170	70		1
10726	1,2,4-Trichlorobenzene	120-82-1	1,700	35	17		1
10726	2,4,5-Trichlorophenol	95-95-4	1,700	35	17		1
10726	2,4,6-Trichlorophenol	88-06-2	1,700	35	17		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: 4,6-dinitro-2-methylphenol 4-nitroaniline						
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/kg	ug/kg	ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	34	1.7	0.70		1
12969	Acenaphthylene	208-96-8	34	1.7	0.35		1
12969	Anthracene	120-12-7	35	1.7	0.35		1
12969	Benzo(a)anthracene	56-55-3	34	1.7	0.70		1
12969	Benzo(a)pyrene	50-32-8	30	1.7	0.70		1
12969	Benzo(b)fluoranthene	205-99-2	35	1.7	0.70		1
12969	Benzo(e)pyrene	192-97-2	27	18	3.5		1

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Sample Description: SL-651-SA5C-TR-5.0 MSD Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483439
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
12969	Benzo(g,h,i)perylene	191-24-2	31		1.7	0.70		1
12969	Benzo(k)fluoranthene	207-08-9	28		1.7	0.70		1
12969	Butylbenzylphthalate	85-68-7	34		19	6.3		1
12969	Di-n-butylphthalate	84-74-2	34		19	6.3		1
12969	Chrysene	218-01-9	32		1.7	0.35		1
12969	Dibenz(a,h)anthracene	53-70-3	33		1.7	0.70		1
12969	Diethylphthalate	84-66-2	29		19	6.3		1
12969	Dimethylphthalate	131-11-3	31		19	6.3		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	35		19	6.3		1
12969	Fluoranthene	206-44-0	34		1.7	0.70		1
12969	Fluorene	86-73-7	33		1.7	0.70		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	34		1.7	0.70		1
12969	1-Methylnaphthalene	90-12-0	33		1.7	0.70		1
12969	2-Methylnaphthalene	91-57-6	36		1.7	0.70		1
12969	Naphthalene	91-20-3	35		1.7	0.70		1
12969	N-Nitrosodimethylamine	62-75-9	29		1.7	0.70		1
12969	Di-n-octylphthalate	117-84-0	36		19	6.3		1
12969	Phenanthrene	85-01-8	35		1.7	0.70		1
12969	Pyrene	129-00-0	29		1.7	0.70		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: benzo(e)pyrene							
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	8.8		1.0	0.2		24.8
Explosives	**SW-846 8330A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	5,700		310	160		1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	5,100		310	100		1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	420	U	420	210		1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	420	U	420	210		1
10132	1,3-Dinitrobenzene	99-65-0	5,600		310	100		1
10132	2,4-Dinitrotoluene	121-14-2	5,500		310	100		1
10132	2,6-Dinitrotoluene	606-20-2	5,300		310	100		1
10132	HMX	2691-41-0	5,700		420	210		1
10132	Nitrobenzene	98-95-3	5,100		310	100		1
10132	Nitroglycerin	55-63-0	22,000		2,100	1,000		1
10132	2-Nitrotoluene	88-72-2	5,200		310	210		1
10132	3-Nitrotoluene	99-08-1	5,100		310	260		1
10132	4-Nitrotoluene	99-99-0	5,200		310	210		1
10132	PETN	78-11-5	43,000		2,100	1,000		1
10132	RDX	121-82-4	5,400		310	140		1
10132	Tetryl	479-45-8	4,500		310	170		1
10132	1,3,5-Trinitrobenzene	99-35-4	5,600		310	100		1
10132	2,4,6-Trinitrotoluene	118-96-7	5,100		310	100		1
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	

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Sample Description: SL-651-SA5C-TR-5.0 MSD Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483439
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Herbicides	**SW-846 8151A**		ug/kg		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	96		37	12		1
10401	Dalapon	75-99-0	120		93	46		1
10401	2,4-DB	94-82-6	100		18	6.4		1
10401	Dicamba	1918-00-9	10	J	12	4.2		1
10401	Dinoseb	88-85-7	41		25	9.3		1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.							
10401	2,4-DP (Dichlorprop)	120-36-5	140		18	9.3		1
10401	MCPA	94-74-6	11,000		2,600	790		1
10401	MCPP (Mecoprop)	93-65-2	7,100		2,600	780		1
10401	2,4,5-T	93-76-5	12		1.8	0.85		1
10401	2,4,5-TP	93-72-1	9.8		1.8	0.78		1
Perchlorate	**SW-846 6850 1/2007**		ug/kg		ug/kg	ug/kg	ug/kg	
06557	6a Perchlorate (Method 6850)	14797-73-0	110		5.2	2.2		1
Pesticides/PCBs	**SW-846 8081B**		ug/kg		ug/kg	ug/kg	ug/kg	
10590	Aldrin	309-00-2	3.0		0.87	0.18		1
10590	Alpha BHC	319-84-6	3.1		0.87	0.18		1
10590	Beta BHC	319-85-7	3.1		2.0	1.0		1
10590	Gamma BHC - Lindane	58-89-9	3.2		0.87	0.18		1
10590	Chlordane	57-74-9	18	U	18	4.2		1
10590	p,p-DDD	72-54-8	7.5		1.8	0.35		1
10590	p,p-DDE	72-55-9	7.2		1.8	0.35		1
10590	p,p-DDT	50-29-3	7.3		1.8	0.37		1
10590	Delta BHC	319-86-8	3.2		0.87	0.47		1
10590	Dieldrin	60-57-1	6.5		1.8	0.35		1
10590	Endosulfan I	959-98-8	3.1		0.87	0.23		1
10590	Endosulfan II	33213-65-9	6.2		1.8	0.35		1
10590	Endosulfan Sulfate	1031-07-8	6.3		1.8	0.35		1
10590	Endrin	72-20-8	6.9		1.8	0.35		1
10590	Endrin Aldehyde	7421-93-4	6.0		1.8	0.35		1
10590	Endrin Ketone	53494-70-5	6.0		1.9	0.63		1
10590	Heptachlor	76-44-8	3.2		0.87	0.18		1
10590	Heptachlor Epoxide	1024-57-3	3.2		0.87	0.18		1
10590	Methoxychlor	72-43-5	37		7.0	1.8		1
10590	Mirex	2385-85-5	1.8	U	1.8	0.37		1
10590	Toxaphene	8001-35-2	35	U	35	15		1
Pesticides/PCBs	**SW-846 8082A**		ug/kg		ug/kg	ug/kg	ug/kg	
13099	Aroclor 5432	63496-31-1	34	U	34	10		1
13099	Aroclor 5442	12642-23-8	34	U	34	10		1
13099	Aroclor 5460	11126-42-4	34	U	34	10		1
13099	PCB-1016	12674-11-2	190		18	3.4		1
13099	PCB-1221	11104-28-2	18	U	18	5.3		1
13099	PCB-1232	11141-16-5	18	U	18	4.2		1
13099	PCB-1242	53469-21-9	18	U	18	4.2		1
13099	PCB-1248	12672-29-6	18	U	18	3.4		1
13099	PCB-1254	11097-69-1	18	U	18	4.5		1
13099	PCB-1260	11096-82-5	190		18	4.0		1

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Sample Description: SL-651-SA5C-TR-5.0 MSD Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483439
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
13099	PCB-1262	37324-23-5	18	U	18	3.4		1
13099	PCB-1268	11100-14-4	18	U	18	3.4		1
	For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.							
GC Miscellaneous	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12934	Diethylene glycol	111-46-6	52		10	5.2		1
12934	Ethylene glycol	107-21-1	200		10	5.2		1
12934	Propylene glycol	57-55-6	220		10	5.2		1
12934	Triethylene glycol	112-27-6	8.5	J	10	5.2		1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	2.7		0.18	0.070		1
10318	o-Terphenyl	84-15-1	2.7		0.18	0.070		1
10318	p-Terphenyl	92-94-4	2.5		0.18	0.070		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	4.9	J	5.2	2.1		1
12952	EFH (C15-C20)	n.a.	7.9		5.2	2.1		1
12952	EFH (C21-C30)	n.a.	16		5.2	2.1		1
12952	EFH (C30-C40)	n.a.	16		10	4.2		1
12952	EFH (C8-C11)	n.a.	4.7	J	5.2	2.1		1
13197	EFH C12-C14 w/ SiGel	n.a.	4.2	J	5.2	2.1		1
13197	EFH C15-C20 w/ SiGel	n.a.	6.5		5.2	2.1		1
13197	EFH C21-C30 w/ SiGel	n.a.	11		5.2	2.1		1
13197	EFH C30-C40 w/ SiGel	n.a.	11		10	4.2		1
13197	EFH C8-C11 w/ SiGel	n.a.	3.1	J	5.2	2.1		1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,200		41.1	7.41		1
06944	Antimony	7440-36-0	34.2		4.11	0.760		1
06935	Arsenic	7440-38-2	19.0		4.11	0.719		1
06946	Barium	7440-39-3	274		1.03	0.0339		1
06947	Beryllium	7440-41-7	5.89		1.03	0.0689		1
07914	Boron	7440-42-8	200		10.3	0.863		1
06949	Cadmium	7440-43-9	5.02		1.03	0.0781		1
01650	Calcium	7440-70-2	2,990		20.6	3.43		1
06951	Chromium	7440-47-3	31.7		3.08	0.164		1
06952	Cobalt	7440-48-4	53.3		1.03	0.102		1
06953	Copper	7440-50-8	34.1		2.06	0.298		1
01654	Iron	7439-89-6	19,200		41.1	3.72		1
06955	Lead	7439-92-1	21.4		3.08	0.514		1
01656	Lithium	7439-93-2	132		4.1	0.35		1
01657	Magnesium	7439-95-4	4,230		10.3	1.72		1

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Sample Description: SL-651-SA5C-TR-5.0 MSD Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483439
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
06958	Manganese	7439-96-5	303	1.03	0.0853		1
06960	Molybdenum	7439-98-7	199	2.06	0.175		1
06961	Nickel	7440-02-0	56.8	2.06	0.134		1
10145	Phosphorus	7723-14-0	504	10.3	2.97		1
01662	Potassium	7440-09-7	4,320	103	8.57		1
01667	Sodium	7440-23-5	1,100	103	17.2		1
06969	Tin	7440-31-5	378	10.3	0.226		1
06970	Titanium	7440-32-6	1,190	1.03	0.175		1
06971	Vanadium	7440-62-2	78.9	1.03	0.134		1
06972	Zinc	7440-66-6	117	4.11	0.206		1
10146	Zirconium	7440-67-7	107	5.14	0.863		1
	SW-846 6020A		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.24	0.411	0.103		2
06142	Silver	7440-22-4	10.4	0.206	0.0267		2
06144	Strontium	7440-24-6	18.2	0.411	0.0699		2
06145	Thallium	7440-28-0	0.634	0.206	0.0308		2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.192	0.0172	0.0103		1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	4.6	0.10	0.10		1

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Sample Description: SL-651-SA5C-TR-5.0 MSD Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483439
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		ng/kg		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	18.9		1.03	0.0768		1
11031	12378-PeCDD	40321-76-4	98.3	B	5.16	0.0603		1
11031	123478-HxCDD	39227-28-6	95.1	B	5.16	0.0558		1
11031	123678-HxCDD	57653-85-7	95.2	B	5.16	0.0578		1
11031	123789-HxCDD	19408-74-3	95.1	B	5.16	0.0519		1
11031	1234678-HpCDD	35822-46-9	95.5	B	5.16	0.0593		1
11031	OCDD	3268-87-9	184	B	10.3	0.0461		1
11031	2378-TCDF	51207-31-9	21.2		1.03	0.0682		1
11031	12378-PeCDF	57117-41-6	95.0	B	5.16	0.0396		1
11031	23478-PeCDF	57117-31-4	96.4	B	5.16	0.0387		1
11031	123478-HxCDF	70648-26-9	96.0	B	5.16	0.0819		1
11031	123678-HxCDF	57117-44-9	96.4	B	5.16	0.0733		1
11031	123789-HxCDF	72918-21-9	95.1	B	5.16	0.0905		1
11031	234678-HxCDF	60851-34-5	97.9	B	5.16	0.0742		1
11031	1234678-HpCDF	67562-39-4	92.4	B	5.16	0.0465		1
11031	1234789-HpCDF	55673-89-7	93.1	B	5.16	0.0764		1
11031	OCDF	39001-02-0	187	B	10.3	0.0510		1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	85	25 - 164
13C12-12378-PeCDD	96	25 - 181
13C12-123478-HxCDD	93	32 - 141
13C12-123678-HxCDD	93	28 - 130
13C12-123789-HxCDD	97	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	85	17 - 157
13C12-2378-TCDF	86	24 - 169
13C12-12378-PeCDF	99	24 - 185
13C12-23478-PeCDF	95	21 - 178
13C12-123478-HxCDF	82	26 - 152
13C12-123678-HxCDF	92	26 - 123
13C12-234678-HxCDF	85	28 - 136
13C12-123789-HxCDF	83	29 - 147
13C12-1234678-HpCDF	107	28 - 143
13C12-1234789-HpCDF	75	26 - 138
13C12-OCDF	67	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

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Sample Description: SL-651-SA5C-TR-5.0 MSD Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483439
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Action Limit	Dilution Factor
S	*Saturation of detection signal*						

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-651-SA5C-TR-5.0 MSD Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483439
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02MSD

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	8a SVOCs by EPA 8270D	SW-846 8270D	1	14154SLH026	06/13/2014 06:28	Brian K Graham	1
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14154SLI026	06/10/2014 05:43	Mark A Clark	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	14154SLH026	06/04/2014 09:30	David S Schrum	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14154SLI026	06/04/2014 09:30	David S Schrum	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14154A16A	06/04/2014 01:31	Laura M Krieger	24.8
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201415134672	05/31/2014 16:42	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201415134672	05/31/2014 16:42	Mitchell R Washel	n.a.
10132	24a Energetics by 8330A	SW-846 8330A	1	141550001A	06/06/2014 20:57	James H Place	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	141540008A	06/04/2014 14:45	Lisa A Reinert	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141550002A	06/05/2014 19:34	Richard A Shober	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141530004A	06/09/2014 11:24	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141540027A	06/10/2014 03:01	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141540027A	06/04/2014 07:40	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141530004A	06/02/2014 15:00	Kelli M Barto	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	141540008A	06/03/2014 13:45	Seth A Farrier	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141550002A	06/05/2014 06:15	Maria Davenport	1
11137	Energetics Extraction	SW-846 8330	1	141550001A	06/04/2014 13:15	Wanda F Oswald	1
12934	Glycols in Soil (Sonication)	SW-846 8015B	1	141550013A	06/06/2014 23:29	Tyler O Griffin	1
10318	27a Terphenyls by 8015B	SW-846 8015B	1	141560017A	06/06/2014 13:52	Glorines Suarez-Rivera	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540029A	06/04/2014 23:13	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540030A	06/06/2014 00:02	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540030A	06/04/2014 09:30	David S Schrum	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540029A	06/04/2014 09:30	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	141560017A	06/05/2014 17:00	JoElla L Rice	1
12933	Glycols Sonication Extraction	SW-846 3550C	1	141550013A	06/04/2014 20:00	David V Hershey Jr	1

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Sample Description: SL-651-SA5C-TR-5.0 MSD Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483439
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14160002	06/13/2014 04:50	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14160002	06/09/2014 10:50	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
06944	Antimony	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
06951	Chromium	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
06955	Lead	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
06958	Manganese	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
06970	Titanium	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	141540637001	06/04/2014 22:27	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	141540637001B	06/05/2014 06:23	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141540637001A	06/05/2014 06:23	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141540637001A	06/05/2014 06:23	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141540637001A	06/05/2014 06:23	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638001	06/09/2014 09:59	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141540637001	06/04/2014 08:27	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638001	06/05/2014 10:28	James L Mertz	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14156162401B	06/05/2014 20:03	Scott W Freisher	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-651-SA5C-TR-5.0 DUP Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483440
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02DUP

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	9,280		40.7	7.34		1
06944	Antimony	7440-36-0	4.07	U	4.07	0.753		1
06935	Arsenic	7440-38-2	6.46		4.07	0.712		1
06946	Barium	7440-39-3	61.9		1.02	0.0336		1
06947	Beryllium	7440-41-7	0.463	J	1.02	0.0682		1
07914	Boron	7440-42-8	2.06	J	10.2	0.855		1
06949	Cadmium	7440-43-9	1.02	U	1.02	0.0773		1
01650	Calcium	7440-70-2	2,150		20.4	3.40		1
06951	Chromium	7440-47-3	9.81		3.05	0.163		1
06952	Cobalt	7440-48-4	3.53		1.02	0.101		1
06953	Copper	7440-50-8	4.80		2.04	0.295		1
01654	Iron	7439-89-6	17,100		40.7	3.68		1
06955	Lead	7439-92-1	5.26		3.05	0.509		1
01656	Lithium	7439-93-2	23.8		4.1	0.35		1
01657	Magnesium	7439-95-4	3,520		10.2	1.70		1
06958	Manganese	7439-96-5	252		1.02	0.0845		1
06960	Molybdenum	7439-98-7	0.176	J	2.04	0.173		1
06961	Nickel	7440-02-0	5.68		2.04	0.132		1
10145	Phosphorus	7723-14-0	354		10.2	2.94		1
01662	Potassium	7440-09-7	2,860		102	8.49		1
01667	Sodium	7440-23-5	71.5	J	102	17.0		1
06969	Tin	7440-31-5	2.68	J	10.2	0.224		1
06970	Titanium	7440-32-6	927		1.02	0.173		1
06971	Vanadium	7440-62-2	22.2		1.02	0.132		1
06972	Zinc	7440-66-6	59.3		4.07	0.204		1
10146	Zirconium	7440-67-7	2.80	J	5.09	0.855		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.140	J	0.407	0.102		2
06142	Silver	7440-22-4	0.204	U	0.204	0.0265		2
06144	Strontium	7440-24-6	10.4		0.407	0.0692		2
06145	Thallium	7440-28-0	0.245		0.204	0.0305		2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0172	U	0.0172	0.0103		1
Wet Chemistry	**SW-846 7199**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05892	2a Chromium VI by EPA 7199	18540-29-9	0.42	U	0.42	0.15		1
	SW-846 9045D modified		**Std. Units**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.85		0.0100	0.0100		1
	The pH was measured in water at 21.5 C.							
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	4.6		0.10	0.10		1
11626	14a Moisture Content by 160.3	n.a.	4.9		0.10	0.10		1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-651-SA5C-TR-5.0 DUP Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483440
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	%	

The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010C	1	141540637001	06/04/2014 22:19	John W Yanzuk II	1
06944	Antimony	SW-846 6010C	1	141540637001	06/04/2014 22:19	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	141540637001	06/04/2014 22:19	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	141540637001	06/04/2014 22:19	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	141540637001	06/04/2014 22:19	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	141540637001	06/04/2014 22:19	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	141540637001	06/04/2014 22:19	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	141540637001	06/05/2014 11:30	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141540637001	06/04/2014 22:19	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	141540637001	06/04/2014 22:19	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	141540637001	06/04/2014 22:19	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	141540637001	06/04/2014 22:19	John W Yanzuk II	1
06955	Lead	SW-846 6010C	1	141540637001	06/04/2014 22:19	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	141540637001	06/04/2014 22:19	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	141540637001	06/04/2014 22:19	John W Yanzuk II	1
06958	Manganese	SW-846 6010C	1	141540637001	06/04/2014 22:19	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	141540637001	06/04/2014 22:19	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	141540637001	06/04/2014 22:19	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010C	1	141540637001	06/04/2014 22:19	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	141540637001	06/04/2014 22:19	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	141540637001	06/04/2014 22:19	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	141540637001	06/04/2014 22:19	John W Yanzuk II	1
06970	Titanium	SW-846 6010C	1	141540637001	06/04/2014 22:19	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	141540637001	06/04/2014 22:19	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	141540637001	06/04/2014 22:19	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	141540637001	06/04/2014 22:19	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	141540637001B	06/05/2014 06:18	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141540637001A	06/05/2014 06:18	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141540637001A	06/05/2014 06:18	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141540637001A	06/05/2014 06:18	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638001	06/09/2014 09:51	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141540637001	06/04/2014 08:27	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638001	06/05/2014 10:28	James L Mertz	1

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Sample Description: SL-651-SA5C-TR-5.0 DUP Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483440
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:40 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65150 SDG#: PH209-02DUP

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05892	2a Chromium VI by EPA 7199	SW-846 7199	1	14155243201A	06/05/2014 18:04	Clinton M Wilson	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14151039401A	05/31/2014 16:00	Luz M Groff	1
02432	Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	14155243201A	06/04/2014 21:20	Daniel S Smith	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14156162401B	06/05/2014 20:03	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	14156162401B	06/05/2014 20:03	Scott W Freisher	1

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Sample Description: SL-951-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483441
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:45 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

95150 SDG#: PH209-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270D			ug/kg		ug/kg	ug/kg	ug/kg	
10726	Aniline	62-53-3	520	U	520	170		1
10726	Benzidine	92-87-5	3,500	U	3,500	730		1
10726	Benzo(a)pyrene	50-32-8	4	J	18	3		1
10726	Benzo(b)fluoranthene	205-99-2	5	J	18	3		1
10726	Benzoic acid	65-85-0	520	U	520	170		1
10726	Benzyl alcohol	100-51-6	520	U	520	170		1
10726	1,1'-Biphenyl	92-52-4	35	U	35	17		1
10726	4-Bromophenyl-phenylether	101-55-3	35	U	35	17		1
10726	Carbazole	86-74-8	35	U	35	17		1
10726	4-Chloro-3-methylphenol	59-50-7	35	U	35	17		1
10726	4-Chloroaniline	106-47-8	35	U	35	17		1
10726	bis(2-Chloroethoxy)methane	111-91-1	35	U	35	17		1
10726	bis(2-Chloroethyl)ether	111-44-4	35	U	35	17		1
10726	bis(2-Chloroisopropyl)ether	39638-32-9	35	U	35	17		1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.							
10726	2-Chloronaphthalene	91-58-7	35	U	35	7		1
10726	2-Chlorophenol	95-57-8	35	U	35	17		1
10726	4-Chlorophenyl-phenylether	7005-72-3	35	U	35	17		1
10726	Chrysene	218-01-9	4	J	18	3		1
10726	Dibenzofuran	132-64-9	35	U	35	17		1
10726	1,2-Dichlorobenzene	95-50-1	35	U	35	17		1
10726	1,3-Dichlorobenzene	541-73-1	35	U	35	17		1
10726	1,4-Dichlorobenzene	106-46-7	35	U	35	17		1
10726	3,3'-Dichlorobenzidine	91-94-1	350	U	350	100		1
10726	2,4-Dichlorophenol	120-83-2	35	U	35	17		1
10726	2,6-Dichlorophenol	87-65-0	35	U	35	17		1
10726	2,4-Dimethylphenol	105-67-9	35	U	35	17		1
10726	3,5-Dimethylphenol	108-68-9	170	U	170	35		1
10726	4,6-Dinitro-2-methylphenol	534-52-1	520	U	520	170		1
10726	2,4-Dinitrophenol	51-28-5	1,000	U	1,000	310		1
10726	1,2-Diphenylhydrazine	122-66-7	35	U	35	17		1
10726	Hexachlorobenzene	118-74-1	18	U	18	3		1
10726	Hexachlorobutadiene	87-68-3	35	U	35	17		1
10726	Hexachlorocyclopentadiene	77-47-4	520	U	520	170		1
10726	Hexachloroethane	67-72-1	170	U	170	35		1
10726	Isophorone	78-59-1	35	U	35	17		1
10726	2-Methylphenol	95-48-7	35	U	35	17		1
10726	4-Methylphenol	106-44-5	35	U	35	17		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
10726	NDPA as diphenylamine	n.a.	170	U	170	35		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10726	2-Nitroaniline	88-74-4	35	U	35	17		1
10726	3-Nitroaniline	99-09-2	170	U	170	70		1
10726	4-Nitroaniline	100-01-6	170	U	170	70		1

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Sample Description: SL-951-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483441
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:45 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

95150 SDG#: PH209-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10726	Nitrobenzene	98-95-3	35	U	35	17		1
10726	2-Nitrophenol	88-75-5	35	U	35	17		1
10726	4-Nitrophenol	100-02-7	520	U	520	170		1
10726	N-Nitroso-di-n-propylamine	621-64-7	35	U	35	17		1
10726	N-Nitrosodiphenylamine	86-30-6	35	U	35	17		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10726	Pentachlorophenol	87-86-5	180	U	180	35		1
10726	Phenol	108-95-2	35	U	35	17		1
10726	Pyridine	110-86-1	170	U	170	70		1
10726	1,2,4-Trichlorobenzene	120-82-1	35	U	35	17		1
10726	2,4,5-Trichlorophenol	95-95-4	35	U	35	17		1
10726	2,4,6-Trichlorophenol	88-06-2	35	U	35	17		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: 4,6-dinitro-2-methylphenol 4-nitroaniline							
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70		1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35		1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35		1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.70		1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5		1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.70		1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.70		1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3		1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3		1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.70		1
12969	Diethylphthalate	84-66-2	19	U	19	6.3		1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3		1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.70		1
12969	Fluorene	86-73-7	1.7	U	1.7	0.70		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.70		1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.70		1
12969	2-Methylnaphthalene	91-57-6	0.81	J	1.7	0.70		1
12969	Naphthalene	91-20-3	0.89	J	1.7	0.70		1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70		1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3		1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.70		1
12969	Pyrene	129-00-0	1.7	U	1.7	0.70		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: benzo(e)pyrene							

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Sample Description: SL-951-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483441
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:45 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

95150 SDG#: PH209-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2		24.18
Explosives	**SW-846 8330A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	310	U	310	160	10000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	310	U	310	100	10000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	420	U	420	210	10000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	420	U	420	210	10000000	1
10132	1,3-Dinitrobenzene	99-65-0	310	U	310	100	10000000	1
10132	2,4-Dinitrotoluene	121-14-2	310	U	310	100	10000000	1
10132	2,6-Dinitrotoluene	606-20-2	310	U	310	100	10000000	1
10132	HMX	2691-41-0	420	U	420	210	10000000	1
10132	Nitrobenzene	98-95-3	310	U	310	100	10000000	1
10132	Nitroglycerin	55-63-0	2,100	U	2,100	1,000	10000000	1
10132	2-Nitrotoluene	88-72-2	310	U	310	210	10000000	1
10132	3-Nitrotoluene	99-08-1	310	U	310	260	10000000	1
10132	4-Nitrotoluene	99-99-0	310	U	310	210	10000000	1
10132	PETN	78-11-5	2,100	U	2,100	1,000	10000000	1
10132	RDX	121-82-4	310	U	310	140	10000000	1
10132	Tetryl	479-45-8	310	U	310	170	10000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	310	U	310	100	10000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	310	U	310	100	10000000	1
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	37	U	37	12		1
10401	Dalapon	75-99-0	93	U	93	45		1
10401	2,4-DB	94-82-6	18	U	18	6.4		1
10401	Dicamba	1918-00-9	12	U	12	4.1		1
10401	Dinoseb	88-85-7	25	U	25	9.3		1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.							
10401	2,4-DP (Dichlorprop)	120-36-5	18	U	18	9.3		1

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Sample Description: SL-951-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483441
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Project Name: SSFL Phase 3 Sampling

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3201 Jermantown Road
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95150 SDG#: PH209-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Herbicides	**SW-846 8151A**		ug/kg		ug/kg	ug/kg	ug/kg	
10401	MCPA	94-74-6	2,600	U	2,600	780		1
10401	MCPP (Mecoprop)	93-65-2	2,600	U	2,600	770		1
10401	2,4,5-T	93-76-5	1.8	U	1.8	0.85		1
10401	2,4,5-TP	93-72-1	1.8	U	1.8	0.77		1
Perchlorate	**SW-846 6850 1/2007**		ug/kg		ug/kg	ug/kg	ug/kg	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.2	U	5.2	2.2		1
Pesticides/PCBs	**SW-846 8081B**		ug/kg		ug/kg	ug/kg	ug/kg	
10590	Aldrin	309-00-2	0.87	U	0.87	0.18		1
10590	Alpha BHC	319-84-6	0.87	U	0.87	0.18		1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0		1
10590	Gamma BHC - Lindane	58-89-9	0.87	U	0.87	0.18		1
10590	Chlordane	57-74-9	18	U	18	4.2		1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.35		1
10590	p,p-DDE	72-55-9	1.8	U	1.8	0.35		1
10590	p,p-DDT	50-29-3	1.8	U	1.8	0.37		1
10590	Delta BHC	319-86-8	0.87	U	0.87	0.47		1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.35		1
10590	Endosulfan I	959-98-8	0.87	U	0.87	0.23		1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.35		1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.35		1
10590	Endrin	72-20-8	1.8	U	1.8	0.35		1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.35		1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.63		1
10590	Heptachlor	76-44-8	0.87	U	0.87	0.18		1
10590	Heptachlor Epoxide	1024-57-3	0.87	U	0.87	0.18		1
10590	Methoxychlor	72-43-5	7.0	U	7.0	1.8		1
10590	Mirex	2385-85-5	1.8	U	1.8	0.37		1
10590	Toxaphene	8001-35-2	35	U	35	15		1
Pesticides/PCBs	**SW-846 8082A**		ug/kg		ug/kg	ug/kg	ug/kg	
13099	Aroclor 5432	63496-31-1	34	U	34	10		1
13099	Aroclor 5442	12642-23-8	34	U	34	10		1
13099	Aroclor 5460	11126-42-4	34	U	34	10		1
13099	PCB-1016	12674-11-2	17	U	17	3.4		1
13099	PCB-1221	11104-28-2	17	U	17	5.2		1
13099	PCB-1232	11141-16-5	17	U	17	4.2		1
13099	PCB-1242	53469-21-9	17	U	17	4.2		1
13099	PCB-1248	12672-29-6	17	U	17	3.4		1
13099	PCB-1254	11097-69-1	17	U	17	4.5		1
13099	PCB-1260	11096-82-5	17	U	17	4.0		1
13099	PCB-1262	37324-23-5	17	U	17	3.4		1
13099	PCB-1268	11100-14-4	17	U	17	3.4		1
	For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.							
GC Miscellaneous	**SW-846 8015B**		mg/kg		mg/kg	mg/kg	mg/kg	
12934	Diethylene glycol	111-46-6	10	U	10	5.2		1

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Sample Description: SL-951-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483441
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:45 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

95150 SDG#: PH209-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC Miscellaneous	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12934	Ethylene glycol	107-21-1	10	U	10	5.2		1
12934	Propylene glycol	57-55-6	10	U	10	5.2		1
12934	Triethylene glycol	112-27-6	10	U	10	5.2		1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	0.18	U	0.18	0.070		1
10318	o-Terphenyl	84-15-1	0.18	U	0.18	0.070		1
10318	p-Terphenyl	92-94-4	0.18	U	0.18	0.070		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1		1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1		1
12952	EFH (C21-C30)	n.a.	5.2	U	5.2	2.1		1
12952	EFH (C30-C40)	n.a.	10	U	10	4.2		1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1		1
13197	EFH C12-C14 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
13197	EFH C15-C20 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
13197	EFH C21-C30 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.2		1
13197	EFH C8-C11 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
	The reverse surrogate, capric acid, is present at <1%.							
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,300		40.2	7.25		1
06944	Antimony	7440-36-0	4.02	U	4.02	0.744		1
06935	Arsenic	7440-38-2	3.57	J	4.02	0.704		1
06946	Barium	7440-39-3	71.2		1.01	0.0332		1
06947	Beryllium	7440-41-7	0.559	J	1.01	0.0674		1
07914	Boron	7440-42-8	1.62	J	10.1	0.845		1
06949	Cadmium	7440-43-9	1.01	U	1.01	0.0764		1
01650	Calcium	7440-70-2	2,320		20.1	3.36		1
06951	Chromium	7440-47-3	11.8		3.02	0.161		1
06952	Cobalt	7440-48-4	4.04		1.01	0.0996		1
06953	Copper	7440-50-8	5.43		2.01	0.292		1
01654	Iron	7439-89-6	18,400		40.2	3.64		1
06955	Lead	7439-92-1	5.64		3.02	0.503		1
01656	Lithium	7439-93-2	23.5		4.0	0.34		1
01657	Magnesium	7439-95-4	3,660		10.1	1.68		1
06958	Manganese	7439-96-5	272		1.01	0.0835		1
06960	Molybdenum	7439-98-7	2.01	U	2.01	0.171		1
06961	Nickel	7440-02-0	7.18		2.01	0.131		1
10145	Phosphorus	7723-14-0	318		10.1	2.91		1
01662	Potassium	7440-09-7	2,910		101	8.39		1
01667	Sodium	7440-23-5	71.2	J	101	16.8		1
06969	Tin	7440-31-5	2.69	J	10.1	0.221		1
06970	Titanium	7440-32-6	943		1.01	0.171		1

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Sample Description: SL-951-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483441
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:45 by RE

Submitted: 05/31/2014 10:20
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

95150 SDG#: PH209-03

CAT No.	Analysis Name		CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals		**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06971	Vanadium		7440-62-2	25.8		1.01	0.131		1
06972	Zinc		7440-66-6	58.5		4.02	0.201		1
10146	Zirconium		7440-67-7	2.32	J	5.03	0.845		1
		SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium		7782-49-2	0.143	J	0.402	0.101		2
06142	Silver		7440-22-4	0.201	U	0.201	0.0262		2
06144	Strontium		7440-24-6	14.7		0.402	0.0684		2
06145	Thallium		7440-28-0	0.263		0.201	0.0302		2
		SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A		7439-97-6	0.0166	U	0.0166	0.0099		1
Wet Chemistry		**SW-846 7199**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05892	2a Chromium VI by EPA 7199		18540-29-9	0.43	U	0.43	0.15		1
		SW-846 9045D modified		**Std. Units**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 21.3 C.		n.a.	7.63		0.0100	0.0100		1
Wet Chemistry		**EPA 160.3 modified**		**%**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.		n.a.	4.4		0.10	0.10		1

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SSFL Phase 3 Subarea 5C

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95150 SDG#: PH209-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.04	U	1.04	0.0537		1
11031	12378-PeCDD	40321-76-4	5.18	U	5.18	0.0434		1
11031	123478-HxCDD	39227-28-6	0.0405	JBQ	5.18	0.0320		1
11031	123678-HxCDD	57653-85-7	0.131	JBQ	5.18	0.0329		1
11031	123789-HxCDD	19408-74-3	0.155	JBQ	5.18	0.0299		1
11031	1234678-HpCDD	35822-46-9	1.55	JB	5.18	0.0491		1
11031	OCDD	3268-87-9	11.1	B	10.4	0.0328		1
11031	2378-TCDF	51207-31-9	1.04	U	1.04	0.0429		1
11031	12378-PeCDF	57117-41-6	0.103	JBQ	5.18	0.0197		1
11031	23478-PeCDF	57117-31-4	0.0634	JBQ	5.18	0.0212		1
11031	123478-HxCDF	70648-26-9	0.100	JB	5.18	0.0309		1
11031	123678-HxCDF	57117-44-9	0.0960	JBQ	5.18	0.0257		1
11031	123789-HxCDF	72918-21-9	0.140	JBQ	5.18	0.0325		1
11031	234678-HxCDF	60851-34-5	0.0846	JBQ	5.18	0.0280		1
11031	1234678-HpCDF	67562-39-4	0.228	JB	5.18	0.0133		1
11031	1234789-HpCDF	55673-89-7	0.116	JBQ	5.18	0.0224		1
11031	OCDF	39001-02-0	0.426	JB	10.4	0.0557		1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0313					1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	75	25 - 181
13C12-123478-HxCDD	70	32 - 141
13C12-123678-HxCDD	71	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	67	23 - 140
13C12-OCDD	59	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	79	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	61	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	62	29 - 147
13C12-1234678-HpCDF	81	28 - 143
13C12-1234789-HpCDF	51	26 - 138
13C12-OCDF	42	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

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Sample Description: SL-951-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483441
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:45 by RE

Submitted: 05/31/2014 10:20
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CDM Federal Programs Corp.
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Fairfax VA 22030

95150 SDG#: PH209-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Action Limit	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

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Sample Description: SL-951-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483441
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Project Name: SSFL Phase 3 Sampling

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Fairfax VA 22030

95150 SDG#: PH209-03

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	8a SVOCs by EPA 8270D	SW-846 8270D	1	14154SLH026	06/13/2014 07:20	Brian K Graham	1
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14154SLI026	06/10/2014 06:47	Mark A Clark	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	14154SLH026	06/04/2014 09:30	David S Schrum	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14154SLI026	06/04/2014 09:30	David S Schrum	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14154A16A	06/04/2014 07:00	Laura M Krieger	24.18
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201415134672	05/31/2014 16:44	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201415134672	05/31/2014 16:44	Mitchell R Washel	n.a.
10132	24a Energetics by 8330A	SW-846 8330A	1	141550001A	06/06/2014 21:40	James H Place	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	141540008A	06/04/2014 15:12	Lisa A Reinert	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141550002A	06/05/2014 19:47	Richard A Shober	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141530004A	06/09/2014 11:51	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141540027A	06/10/2014 03:20	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141540027A	06/04/2014 07:40	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141530004A	06/02/2014 15:00	Kelli M Barto	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	141540008A	06/03/2014 13:45	Seth A Farrier	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141550002A	06/05/2014 06:15	Maria Davenport	1
11137	Energetics Extraction	SW-846 8330	1	141550001A	06/04/2014 13:15	Wanda F Oswald	1
12934	26a Glycols by EPA 8015C	SW-846 8015B	1	141550013A	06/06/2014 21:31	Tyler O Griffin	1
10318	27a Terphenyls by 8015B	SW-846 8015B	1	141560017A	06/06/2014 16:11	Glorines Suarez-Rivera	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540029A	06/04/2014 19:37	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540030A	06/06/2014 00:23	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540030A	06/04/2014 09:30	David S Schrum	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540029A	06/04/2014 09:30	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	141560017A	06/05/2014 17:00	JoElla L Rice	1
12933	Glycols Sonication Extraction	SW-846 3550C	1	141550013A	06/04/2014 20:00	David V Hershey Jr	1

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Sample Description: SL-951-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483441
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:45 by RE

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95150 SDG#: PH209-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14160002	06/12/2014 21:02	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14160002	06/09/2014 10:50	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141540637001	06/04/2014 23:50	John W Yanzuk II	1
06944	Antimony	SW-846 6010C	1	141540637001	06/04/2014 23:50	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	141540637001	06/04/2014 23:50	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	141540637001	06/04/2014 23:50	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	141540637001	06/04/2014 23:50	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	141540637001	06/04/2014 23:50	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	141540637001	06/04/2014 23:50	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	141540637001	06/05/2014 12:18	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	141540637001	06/04/2014 23:50	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	141540637001	06/04/2014 23:50	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	141540637001	06/04/2014 23:50	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	141540637001	06/04/2014 23:50	John W Yanzuk II	1
06955	Lead	SW-846 6010C	1	141540637001	06/04/2014 23:50	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	141540637001	06/04/2014 23:50	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	141540637001	06/04/2014 23:50	John W Yanzuk II	1
06958	Manganese	SW-846 6010C	1	141540637001	06/04/2014 23:50	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	141540637001	06/04/2014 23:50	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	141540637001	06/04/2014 23:50	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010C	1	141540637001	06/04/2014 23:50	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	141540637001	06/04/2014 23:50	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	141540637001	06/04/2014 23:50	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	141540637001	06/04/2014 23:50	John W Yanzuk II	1
06970	Titanium	SW-846 6010C	1	141540637001	06/04/2014 23:50	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	141540637001	06/04/2014 23:50	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	141540637001	06/04/2014 23:50	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	141540637001	06/04/2014 23:50	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	141540637001B	06/05/2014 07:13	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141540637001A	06/05/2014 07:13	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141540637001A	06/05/2014 07:13	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141540637001A	06/05/2014 07:13	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638001	06/09/2014 10:02	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141540637001	06/04/2014 08:27	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638001	06/05/2014 10:28	James L Mertz	1
05892	2a Chromium VI by EPA 7199	SW-846 7199	1	14155243201A	06/05/2014 18:20	Clinton M Wilson	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14151039401A	05/31/2014 16:00	Luz M Groff	1
02432	Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	14155243201A	06/04/2014 21:20	Daniel S Smith	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14156162401B	06/05/2014 20:03	Scott W Freisher	1

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Sample Description: SL-651-SA5C-TR-10.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483442
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 09:22 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65110 SDG#: PH209-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270D			ug/kg		ug/kg	ug/kg	ug/kg	
10726	Aniline	62-53-3	530	U	530	180		1
10726	Benzidine	92-87-5	3,500	U	3,500	740		1
10726	Benzo(a)pyrene	50-32-8	4	J	18	3		1
10726	Benzo(b)fluoranthene	205-99-2	5	J	18	3		1
10726	Benzoic acid	65-85-0	530	U	530	180		1
10726	Benzyl alcohol	100-51-6	530	U	530	180		1
10726	1,1'-Biphenyl	92-52-4	35	U	35	18		1
10726	4-Bromophenyl-phenylether	101-55-3	35	U	35	18		1
10726	Carbazole	86-74-8	35	U	35	18		1
10726	4-Chloro-3-methylphenol	59-50-7	35	U	35	18		1
10726	4-Chloroaniline	106-47-8	35	U	35	18		1
10726	bis(2-Chloroethoxy)methane	111-91-1	35	U	35	18		1
10726	bis(2-Chloroethyl)ether	111-44-4	35	U	35	18		1
10726	bis(2-Chloroisopropyl)ether	39638-32-9	35	U	35	18		1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.							
10726	2-Chloronaphthalene	91-58-7	35	U	35	7		1
10726	2-Chlorophenol	95-57-8	35	U	35	18		1
10726	4-Chlorophenyl-phenylether	7005-72-3	35	U	35	18		1
10726	Dibenzofuran	132-64-9	35	U	35	18		1
10726	1,2-Dichlorobenzene	95-50-1	35	U	35	18		1
10726	1,3-Dichlorobenzene	541-73-1	35	U	35	18		1
10726	1,4-Dichlorobenzene	106-46-7	35	U	35	18		1
10726	3,3'-Dichlorobenzidine	91-94-1	350	U	350	110		1
10726	2,4-Dichlorophenol	120-83-2	35	U	35	18		1
10726	2,6-Dichlorophenol	87-65-0	35	U	35	18		1
10726	2,4-Dimethylphenol	105-67-9	35	U	35	18		1
10726	3,5-Dimethylphenol	108-68-9	180	U	180	35		1
10726	4,6-Dinitro-2-methylphenol	534-52-1	530	U	530	180		1
10726	2,4-Dinitrophenol	51-28-5	1,100	U	1,100	320		1
10726	1,2-Diphenylhydrazine	122-66-7	35	U	35	18		1
10726	Hexachlorobenzene	118-74-1	18	U	18	3		1
10726	Hexachlorobutadiene	87-68-3	35	U	35	18		1
10726	Hexachlorocyclopentadiene	77-47-4	530	U	530	180		1
10726	Hexachloroethane	67-72-1	180	U	180	35		1
10726	Isophorone	78-59-1	35	U	35	18		1
10726	2-Methylphenol	95-48-7	35	U	35	18		1
10726	4-Methylphenol	106-44-5	35	U	35	18		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
10726	NDPA as diphenylamine	n.a.	180	U	180	35		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10726	2-Nitroaniline	88-74-4	35	U	35	18		1
10726	3-Nitroaniline	99-09-2	180	U	180	70		1
10726	4-Nitroaniline	100-01-6	180	U	180	70		1
10726	Nitrobenzene	98-95-3	35	U	35	18		1

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Sample Description: SL-651-SA5C-TR-10.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483442
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 09:22 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65110 SDG#: PH209-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		ug/kg		ug/kg	ug/kg	ug/kg	
10726	2-Nitrophenol	88-75-5	35	U	35	18		1
10726	4-Nitrophenol	100-02-7	530	U	530	180		1
10726	N-Nitroso-di-n-propylamine	621-64-7	35	U	35	18		1
10726	N-Nitrosodiphenylamine	86-30-6	35	U	35	18		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10726	Pentachlorophenol	87-86-5	180	U	180	35		1
10726	Phenol	108-95-2	35	U	35	18		1
10726	Pyridine	110-86-1	180	U	180	70		1
10726	1,2,4-Trichlorobenzene	120-82-1	35	U	35	18		1
10726	2,4,5-Trichlorophenol	95-95-4	35	U	35	18		1
10726	2,4,6-Trichlorophenol	88-06-2	35	U	35	18		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: 4,6-dinitro-2-methylphenol 4-nitroaniline							
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/kg		ug/kg	ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.70		1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35		1
12969	Anthracene	120-12-7	1.8	U	1.8	0.35		1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.70		1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5		1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.70		1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.70		1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3		1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3		1
12969	Chrysene	218-01-9	1.8	U	1.8	0.35		1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.70		1
12969	Diethylphthalate	84-66-2	19	U	19	6.3		1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3		1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.70		1
12969	Fluorene	86-73-7	1.8	U	1.8	0.70		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.70		1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.70		1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.70		1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.70		1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.70		1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3		1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.70		1
12969	Pyrene	129-00-0	1.8	U	1.8	0.70		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: benzo(e)pyrene							

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Sample Description: SL-651-SA5C-TR-10.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483442
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 09:22 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65110 SDG#: PH209-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2		25.41
Explosives	**SW-846 8330A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	320	U	320	160	10000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	320	U	320	110	10000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	420	U	420	210	10000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	420	U	420	210	10000000	1
10132	1,3-Dinitrobenzene	99-65-0	320	U	320	110	10000000	1
10132	2,4-Dinitrotoluene	121-14-2	320	U	320	110	10000000	1
10132	2,6-Dinitrotoluene	606-20-2	320	U	320	110	10000000	1
10132	HMX	2691-41-0	420	U	420	210	10000000	1
10132	Nitrobenzene	98-95-3	320	U	320	110	10000000	1
10132	Nitroglycerin	55-63-0	2,100	U	2,100	1,100	10000000	1
10132	2-Nitrotoluene	88-72-2	320	U	320	210	10000000	1
10132	3-Nitrotoluene	99-08-1	320	U	320	260	10000000	1
10132	4-Nitrotoluene	99-99-0	320	U	320	210	10000000	1
10132	PETN	78-11-5	2,100	U	2,100	1,100	10000000	1
10132	RDX	121-82-4	320	U	320	140	10000000	1
10132	Tetryl	479-45-8	320	U	320	170	10000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	320	U	320	110	10000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	320	U	320	110	10000000	1
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	38	U	38	13		1
10401	Dalapon	75-99-0	94	U	94	46		1
10401	2,4-DB	94-82-6	18	U	18	6.5		1
10401	Dicamba	1918-00-9	13	U	13	4.2		1
10401	Dinoseb	88-85-7	25	U	25	9.4		1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.							
10401	2,4-DP (Dichlorprop)	120-36-5	18	U	18	9.4		1

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Sample Description: SL-651-SA5C-TR-10.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483442
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Project Name: SSFL Phase 3 Sampling

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65110 SDG#: PH209-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Herbicides	**SW-846 8151A**		ug/kg		ug/kg	ug/kg	ug/kg	
10401	MCPA	94-74-6	2,600	U	2,600	790		1
10401	MCPP (Mecoprop)	93-65-2	2,600	U	2,600	780		1
10401	2,4,5-T	93-76-5	1.8	U	1.8	0.86		1
10401	2,4,5-TP	93-72-1	1.8	U	1.8	0.78		1
Perchlorate	**SW-846 6850 1/2007**		ug/kg		ug/kg	ug/kg	ug/kg	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.3	U	5.3	2.2		1
Pesticides/PCBs	**SW-846 8081B**		ug/kg		ug/kg	ug/kg	ug/kg	
10590	Aldrin	309-00-2	0.87	U	0.87	0.18		1
10590	Alpha BHC	319-84-6	0.87	U	0.87	0.18		1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0		1
10590	Gamma BHC - Lindane	58-89-9	0.87	U	0.87	0.18		1
10590	Chlordane	57-74-9	18	U	18	4.2		1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.35		1
10590	p,p-DDE	72-55-9	1.8	U	1.8	0.35		1
10590	p,p-DDT	50-29-3	0.57	J	1.8	0.37		1
10590	Delta BHC	319-86-8	0.87	U	0.87	0.47		1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.35		1
10590	Endosulfan I	959-98-8	0.87	U	0.87	0.23		1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.35		1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.35		1
10590	Endrin	72-20-8	1.8	U	1.8	0.35		1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.35		1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.63		1
10590	Heptachlor	76-44-8	0.87	U	0.87	0.18		1
10590	Heptachlor Epoxide	1024-57-3	0.87	U	0.87	0.18		1
10590	Methoxychlor	72-43-5	7.0	U	7.0	1.8		1
10590	Mirex	2385-85-5	1.8	U	1.8	0.37		1
10590	Toxaphene	8001-35-2	35	U	35	15		1
Pesticides/PCBs	**SW-846 8082A**		ug/kg		ug/kg	ug/kg	ug/kg	
13099	Aroclor 5432	63496-31-1	34	U	34	10		1
13099	Aroclor 5442	12642-23-8	34	U	34	10		1
13099	Aroclor 5460	11126-42-4	34	U	34	10		1
13099	PCB-1016	12674-11-2	18	U	18	3.4		1
13099	PCB-1221	11104-28-2	18	U	18	5.3		1
13099	PCB-1232	11141-16-5	18	U	18	4.2		1
13099	PCB-1242	53469-21-9	18	U	18	4.2		1
13099	PCB-1248	12672-29-6	18	U	18	3.4		1
13099	PCB-1254	11097-69-1	18	U	18	4.5		1
13099	PCB-1260	11096-82-5	18	U	18	4.0		1
13099	PCB-1262	37324-23-5	18	U	18	3.4		1
13099	PCB-1268	11100-14-4	18	U	18	3.4		1
	For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.							
GC Miscellaneous	**SW-846 8015B**		mg/kg		mg/kg	mg/kg	mg/kg	
12934	Diethylene glycol	111-46-6	11	U	11	5.3		1

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Sample Description: SL-651-SA5C-TR-10.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483442
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

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65110 SDG#: PH209-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC Miscellaneous	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12934	Ethylene glycol	107-21-1	11	U	11	5.3		1
12934	Propylene glycol	57-55-6	11	U	11	5.3		1
12934	Triethylene glycol	112-27-6	11	U	11	5.3		1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	0.18	U	0.18	0.070		1
10318	o-Terphenyl	84-15-1	0.18	U	0.18	0.070		1
10318	p-Terphenyl	92-94-4	0.18	U	0.18	0.070		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1		1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1		1
12952	EFH (C21-C30)	n.a.	3.2	J	5.3	2.1		1
12952	EFH (C30-C40)	n.a.	11	U	11	4.2		1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1		1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1		1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1		1
13197	EFH C21-C30 w/ SiGel	n.a.	5.3	U	5.3	2.1		1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.2		1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1		1
	The reverse surrogate, capric acid, is present at <1%.							
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	16,500		41.2	7.43		1
06944	Antimony	7440-36-0	4.12	U	4.12	0.762		1
06935	Arsenic	7440-38-2	4.29		4.12	0.721		1
06946	Barium	7440-39-3	103		1.03	0.0340		1
06947	Beryllium	7440-41-7	0.683	J	1.03	0.0690		1
07914	Boron	7440-42-8	2.29	J	10.3	0.865		1
06949	Cadmium	7440-43-9	1.03	U	1.03	0.0783		1
01650	Calcium	7440-70-2	3,240		20.6	3.44		1
06951	Chromium	7440-47-3	18.1		3.09	0.165		1
06952	Cobalt	7440-48-4	4.76		1.03	0.102		1
06953	Copper	7440-50-8	9.03		2.06	0.299		1
01654	Iron	7439-89-6	20,500		41.2	3.73		1
06955	Lead	7439-92-1	6.64		3.09	0.515		1
01656	Lithium	7439-93-2	21.8		4.1	0.35		1
01657	Magnesium	7439-95-4	4,150		10.3	1.72		1
06958	Manganese	7439-96-5	293		1.03	0.0855		1
06960	Molybdenum	7439-98-7	0.186	J	2.06	0.175		1
06961	Nickel	7440-02-0	10.5		2.06	0.134		1
10145	Phosphorus	7723-14-0	307		10.3	2.98		1
01662	Potassium	7440-09-7	3,110		103	8.59		1
01667	Sodium	7440-23-5	169		103	17.2		1
06969	Tin	7440-31-5	2.72	J	10.3	0.227		1
06970	Titanium	7440-32-6	963		1.03	0.175		1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-651-SA5C-TR-10.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483442
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 09:22 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65110 SDG#: PH209-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06971	Vanadium	7440-62-2	34.2		1.03	0.134		1
06972	Zinc	7440-66-6	56.2		4.12	0.206		1
10146	Zirconium	7440-67-7	3.47	J	5.15	0.865		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.129	J	0.412	0.103		2
06142	Silver	7440-22-4	0.206	U	0.206	0.0268		2
06144	Strontium	7440-24-6	23.9		0.412	0.0700		2
06145	Thallium	7440-28-0	0.308		0.206	0.0309		2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0124	J	0.0169	0.0101		1
Wet Chemistry	**SW-846 7199**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05892	2a Chromium VI by EPA 7199	18540-29-9	0.41	J	0.43	0.15		1
	SW-846 9045D modified		**Std. Units**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 21.4 C.	n.a.	8.07		0.0100	0.0100		1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	4.8		0.10	0.10		1

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Sample Description: SL-651-SA5C-TR-10.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483442
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 09:22 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65110 SDG#: PH209-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.01 U	1.01	0.0608		1
11031	12378-PeCDD	40321-76-4	0.0599 JBQ	5.07	0.0477		1
11031	123478-HxCDD	39227-28-6	0.0415 JBQ	5.07	0.0360		1
11031	123678-HxCDD	57653-85-7	0.384 JBQ	5.07	0.0379		1
11031	123789-HxCDD	19408-74-3	0.396 JBQ	5.07	0.0381		1
11031	1234678-HpCDD	35822-46-9	1.12 JB	5.07	0.0440		1
11031	OCDD	3268-87-9	15.5 B	10.1	0.0293		1
11031	2378-TCDF	51207-31-9	0.0779 J	1.01	0.0668		1
11031	12378-PeCDF	57117-41-6	0.231 JBQ	5.07	0.0266		1
11031	23478-PeCDF	57117-31-4	0.166 JBQ	5.07	0.0282		1
11031	123478-HxCDF	70648-26-9	0.0822 JBQ	5.07	0.0374		1
11031	123678-HxCDF	57117-44-9	0.114 JBQ	5.07	0.0330		1
11031	123789-HxCDF	72918-21-9	0.330 JBQ	5.07	0.0438		1
11031	234678-HxCDF	60851-34-5	0.170 JBQ	5.07	0.0344		1
11031	1234678-HpCDF	67562-39-4	0.278 JBQ	5.07	0.0129		1
11031	1234789-HpCDF	55673-89-7	0.100 JBQ	5.07	0.0226		1
11031	OCDF	39001-02-0	0.513 JB	10.1	0.0482		1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0237				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	73	28 - 130
13C12-123789-HxCDD	72	28 - 130
13C12-1234678-HpCDD	71	23 - 140
13C12-OCDD	67	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	81	24 - 185
13C12-23478-PeCDF	75	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	63	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	57	26 - 138
13C12-OCDF	51	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-651-SA5C-TR-10.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483442
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 09:22 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65110 SDG#: PH209-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Action Limit	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-651-SA5C-TR-10.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483442
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 09:22 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65110 SDG#: PH209-04

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	8a SVOCs by EPA 8270D	SW-846 8270D	1	14154SLH026	06/13/2014 07:46	Brian K Graham	1
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14154SLI026	06/10/2014 07:20	Mark A Clark	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	14154SLH026	06/04/2014 09:30	David S Schrum	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14154SLI026	06/04/2014 09:30	David S Schrum	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14154A16A	06/04/2014 07:38	Laura M Krieger	25.41
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201415134672	05/31/2014 16:45	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201415134672	05/31/2014 16:45	Mitchell R Washel	n.a.
10132	24a Energetics by 8330A	SW-846 8330A	1	141550001A	06/06/2014 22:22	James H Place	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	141540008A	06/04/2014 15:39	Lisa A Reinert	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141550002A	06/05/2014 19:59	Richard A Shober	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141530004A	06/09/2014 12:05	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141540027A	06/10/2014 03:38	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141540027A	06/04/2014 07:40	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141530004A	06/02/2014 15:00	Kelli M Barto	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	141540008A	06/03/2014 13:45	Seth A Farrier	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141550002A	06/05/2014 06:15	Maria Davenport	1
11137	Energetics Extraction	SW-846 8330	1	141550001A	06/04/2014 13:15	Wanda F Oswald	1
12934	26a Glycols by EPA 8015C	SW-846 8015B	1	141550013A	06/06/2014 21:46	Tyler O Griffin	1
10318	27a Terphenyls by 8015B	SW-846 8015B	1	141560017A	06/06/2014 16:33	Glorines Suarez-Rivera	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540029A	06/04/2014 19:58	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540030A	06/06/2014 00:45	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540030A	06/04/2014 09:30	David S Schrum	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540029A	06/04/2014 09:30	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	141560017A	06/05/2014 17:00	JoElla L Rice	1
12933	Glycols Sonication Extraction	SW-846 3550C	1	141550013A	06/04/2014 20:00	David V Hershey Jr	1

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Sample Description: SL-651-SA5C-TR-10.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483442
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 09:22 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65110 SDG#: PH209-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14160002	06/13/2014 01:03	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14160002	06/09/2014 10:50	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
06944	Antimony	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
06951	Chromium	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
06955	Lead	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
06958	Manganese	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
06970	Titanium	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	141540637001	06/04/2014 23:54	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	141540637001B	06/05/2014 07:15	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141540637001A	06/05/2014 07:15	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141540637001A	06/05/2014 07:15	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141540637001A	06/05/2014 07:15	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638001	06/09/2014 10:04	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141540637001	06/04/2014 08:27	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638001	06/05/2014 10:28	James L Mertz	1
05892	2a Chromium VI by EPA 7199	SW-846 7199	1	14155243201A	06/05/2014 18:51	Clinton M Wilson	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14151039401A	05/31/2014 16:00	Luz M Groff	1
02432	Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	14155243201A	06/04/2014 21:20	Daniel S Smith	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14156162401B	06/05/2014 20:03	Scott W Freisher	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-651-SA5C-TR-15.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483443
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 11:14 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65115 SDG#: PH209-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270D			ug/kg		ug/kg	ug/kg	ug/kg	
10726	Aniline	62-53-3	530	U	530	180		1
10726	Benzidine	92-87-5	3,500	U	3,500	740		1
10726	Benzo(a)pyrene	50-32-8	4	J	18	4		1
10726	Benzo(b)fluoranthene	205-99-2	4	J	18	4		1
10726	Benzoic acid	65-85-0	530	U	530	180		1
10726	Benzyl alcohol	100-51-6	530	U	530	180		1
10726	1,1'-Biphenyl	92-52-4	35	U	35	18		1
10726	4-Bromophenyl-phenylether	101-55-3	35	U	35	18		1
10726	Carbazole	86-74-8	35	U	35	18		1
10726	4-Chloro-3-methylphenol	59-50-7	35	U	35	18		1
10726	4-Chloroaniline	106-47-8	35	U	35	18		1
10726	bis(2-Chloroethoxy)methane	111-91-1	35	U	35	18		1
10726	bis(2-Chloroethyl)ether	111-44-4	35	U	35	18		1
10726	bis(2-Chloroisopropyl)ether	39638-32-9	35	U	35	18		1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.							
10726	2-Chloronaphthalene	91-58-7	35	U	35	7		1
10726	2-Chlorophenol	95-57-8	35	U	35	18		1
10726	4-Chlorophenyl-phenylether	7005-72-3	35	U	35	18		1
10726	Dibenzofuran	132-64-9	35	U	35	18		1
10726	1,2-Dichlorobenzene	95-50-1	35	U	35	18		1
10726	1,3-Dichlorobenzene	541-73-1	35	U	35	18		1
10726	1,4-Dichlorobenzene	106-46-7	35	U	35	18		1
10726	3,3'-Dichlorobenzidine	91-94-1	350	U	350	110		1
10726	2,4-Dichlorophenol	120-83-2	35	U	35	18		1
10726	2,6-Dichlorophenol	87-65-0	35	U	35	18		1
10726	2,4-Dimethylphenol	105-67-9	35	U	35	18		1
10726	3,5-Dimethylphenol	108-68-9	180	U	180	35		1
10726	4,6-Dinitro-2-methylphenol	534-52-1	530	U	530	180		1
10726	2,4-Dinitrophenol	51-28-5	1,100	U	1,100	320		1
10726	1,2-Diphenylhydrazine	122-66-7	35	U	35	18		1
10726	Hexachlorobenzene	118-74-1	18	U	18	4		1
10726	Hexachlorobutadiene	87-68-3	35	U	35	18		1
10726	Hexachlorocyclopentadiene	77-47-4	530	U	530	180		1
10726	Hexachloroethane	67-72-1	180	U	180	35		1
10726	Isophorone	78-59-1	35	U	35	18		1
10726	2-Methylphenol	95-48-7	35	U	35	18		1
10726	4-Methylphenol	106-44-5	35	U	35	18		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
10726	NDPA as diphenylamine	n.a.	180	U	180	35		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10726	2-Nitroaniline	88-74-4	35	U	35	18		1
10726	3-Nitroaniline	99-09-2	180	U	180	70		1
10726	4-Nitroaniline	100-01-6	180	U	180	70		1
10726	Nitrobenzene	98-95-3	35	U	35	18		1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-651-SA5C-TR-15.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483443
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 11:14 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65115 SDG#: PH209-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10726	2-Nitrophenol	88-75-5	35	U	35	18		1
10726	4-Nitrophenol	100-02-7	530	U	530	180		1
10726	N-Nitroso-di-n-propylamine	621-64-7	35	U	35	18		1
10726	N-Nitrosodiphenylamine	86-30-6	35	U	35	18		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10726	Pentachlorophenol	87-86-5	180	U	180	35		1
10726	Phenol	108-95-2	35	U	35	18		1
10726	Pyridine	110-86-1	180	U	180	70		1
10726	1,2,4-Trichlorobenzene	120-82-1	35	U	35	18		1
10726	2,4,5-Trichlorophenol	95-95-4	35	U	35	18		1
10726	2,4,6-Trichlorophenol	88-06-2	35	U	35	18		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: 4,6-dinitro-2-methylphenol 4-nitroaniline							
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.70		1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35		1
12969	Anthracene	120-12-7	1.8	U	1.8	0.35		1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.70		1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5		1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.70		1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.70		1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3		1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3		1
12969	Chrysene	218-01-9	1.8	U	1.8	0.35		1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.70		1
12969	Diethylphthalate	84-66-2	19	U	19	6.3		1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3		1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.70		1
12969	Fluorene	86-73-7	1.8	U	1.8	0.70		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.70		1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.70		1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.70		1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.70		1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.70		1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3		1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.70		1
12969	Pyrene	129-00-0	1.8	U	1.8	0.70		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: benzo(e)pyrene							

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Sample Description: SL-651-SA5C-TR-15.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483443
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 11:14 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65115 SDG#: PH209-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2		24.65
Explosives	**SW-846 8330A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	320	U	320	160	10000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	320	U	320	110	10000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	420	U	420	210	10000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	420	U	420	210	10000000	1
10132	1,3-Dinitrobenzene	99-65-0	320	U	320	110	10000000	1
10132	2,4-Dinitrotoluene	121-14-2	320	U	320	110	10000000	1
10132	2,6-Dinitrotoluene	606-20-2	320	U	320	110	10000000	1
10132	HMX	2691-41-0	420	U	420	210	10000000	1
10132	Nitrobenzene	98-95-3	320	U	320	110	10000000	1
10132	Nitroglycerin	55-63-0	2,100	U	2,100	1,100	10000000	1
10132	2-Nitrotoluene	88-72-2	320	U	320	210	10000000	1
10132	3-Nitrotoluene	99-08-1	320	U	320	260	10000000	1
10132	4-Nitrotoluene	99-99-0	320	U	320	210	10000000	1
10132	PETN	78-11-5	2,100	U	2,100	1,100	10000000	1
10132	RDX	121-82-4	320	U	320	140	10000000	1
10132	Tetryl	479-45-8	320	U	320	170	10000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	320	U	320	110	10000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	320	U	320	110	10000000	1
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	38	U	38	13		1
10401	Dalapon	75-99-0	94	U	94	46		1
10401	2,4-DB	94-82-6	18	U	18	6.5		1
10401	Dicamba	1918-00-9	13	U	13	4.2		1
10401	Dinoseb	88-85-7	25	U	25	9.4		1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.							
10401	2,4-DP (Dichlorprop)	120-36-5	18	U	18	9.4		1

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SSFL Phase 3 Subarea 5C

LL Sample # SW 7483443
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

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CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Herbicides	**SW-846 8151A**		ug/kg		ug/kg	ug/kg	ug/kg	
10401	MCPA	94-74-6	2,600	U	2,600	790		1
10401	MCPP (Mecoprop)	93-65-2	2,600	U	2,600	780		1
10401	2,4,5-T	93-76-5	1.8	U	1.8	0.86		1
10401	2,4,5-TP	93-72-1	1.8	U	1.8	0.78		1
Perchlorate	**SW-846 6850 1/2007**		ug/kg		ug/kg	ug/kg	ug/kg	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.3	U	5.3	2.2		1
Pesticides/PCBs	**SW-846 8081B**		ug/kg		ug/kg	ug/kg	ug/kg	
10590	Aldrin	309-00-2	0.88	U	0.88	0.18		1
10590	Alpha BHC	319-84-6	0.88	U	0.88	0.18		1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0		1
10590	Gamma BHC - Lindane	58-89-9	0.88	U	0.88	0.18		1
10590	Chlordane	57-74-9	18	U	18	4.2		1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.35		1
10590	p,p-DDE	72-55-9	1.8	U	1.8	0.35		1
10590	p,p-DDT	50-29-3	1.8	U	1.8	0.37		1
10590	Delta BHC	319-86-8	0.88	U	0.88	0.48		1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.35		1
10590	Endosulfan I	959-98-8	0.88	U	0.88	0.23		1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.35		1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.35		1
10590	Endrin	72-20-8	1.8	U	1.8	0.35		1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.35		1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.63		1
10590	Heptachlor	76-44-8	0.88	U	0.88	0.18		1
10590	Heptachlor Epoxide	1024-57-3	0.88	U	0.88	0.18		1
10590	Methoxychlor	72-43-5	7.1	U	7.1	1.8		1
10590	Mirex	2385-85-5	1.8	U	1.8	0.37		1
10590	Toxaphene	8001-35-2	35	U	35	15		1
Pesticides/PCBs	**SW-846 8082A**		ug/kg		ug/kg	ug/kg	ug/kg	
13099	Aroclor 5432	63496-31-1	34	U	34	10		1
13099	Aroclor 5442	12642-23-8	34	U	34	10		1
13099	Aroclor 5460	11126-42-4	34	U	34	10		1
13099	PCB-1016	12674-11-2	18	U	18	3.4		1
13099	PCB-1221	11104-28-2	18	U	18	5.3		1
13099	PCB-1232	11141-16-5	18	U	18	4.3		1
13099	PCB-1242	53469-21-9	18	U	18	4.3		1
13099	PCB-1248	12672-29-6	18	U	18	3.4		1
13099	PCB-1254	11097-69-1	18	U	18	4.6		1
13099	PCB-1260	11096-82-5	18	U	18	4.1		1
13099	PCB-1262	37324-23-5	18	U	18	3.4		1
13099	PCB-1268	11100-14-4	18	U	18	3.4		1

For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.

GC Miscellaneous	**SW-846 8015B**		mg/kg		mg/kg	mg/kg	mg/kg	
12934	Diethylene glycol	111-46-6	11	U	11	5.3		1

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Sample Description: SL-651-SA5C-TR-15.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483443
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 11:14 by RE

Submitted: 05/31/2014 10:20
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65115 SDG#: PH209-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC Miscellaneous	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12934	Ethylene glycol	107-21-1	11	U	11	5.3		1
12934	Propylene glycol	57-55-6	11	U	11	5.3		1
12934	Triethylene glycol	112-27-6	11	U	11	5.3		1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	0.18	U	0.18	0.071		1
10318	o-Terphenyl	84-15-1	0.18	U	0.18	0.071		1
10318	p-Terphenyl	92-94-4	0.18	U	0.18	0.071		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1		1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1		1
12952	EFH (C21-C30)	n.a.	5.3	U	5.3	2.1		1
12952	EFH (C30-C40)	n.a.	11	U	11	4.2		1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1		1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1		1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1		1
13197	EFH C21-C30 w/ SiGel	n.a.	5.3	U	5.3	2.1		1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.2		1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1		1
	The reverse surrogate, capric acid, is present at <1%.							
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,600		40.7	7.33		1
06944	Antimony	7440-36-0	4.07	U	4.07	0.752		1
06935	Arsenic	7440-38-2	4.39		4.07	0.711		1
06946	Barium	7440-39-3	78.0		1.02	0.0335		1
06947	Beryllium	7440-41-7	0.651	J	1.02	0.0681		1
07914	Boron	7440-42-8	4.80	J	10.2	0.854		1
06949	Cadmium	7440-43-9	1.02	U	1.02	0.0772		1
01650	Calcium	7440-70-2	4,390		20.3	3.39		1
06951	Chromium	7440-47-3	16.7		3.05	0.163		1
06952	Cobalt	7440-48-4	4.66		1.02	0.101		1
06953	Copper	7440-50-8	7.40		2.03	0.295		1
01654	Iron	7439-89-6	19,500		40.7	3.68		1
06955	Lead	7439-92-1	4.94		3.05	0.508		1
01656	Lithium	7439-93-2	20.9		4.1	0.35		1
01657	Magnesium	7439-95-4	4,140		10.2	1.70		1
06958	Manganese	7439-96-5	275		1.02	0.0844		1
06960	Molybdenum	7439-98-7	2.03	U	2.03	0.173		1
06961	Nickel	7440-02-0	9.66		2.03	0.132		1
10145	Phosphorus	7723-14-0	289		10.2	2.94		1
01662	Potassium	7440-09-7	2,820		102	8.48		1
01667	Sodium	7440-23-5	160		102	17.0		1
06969	Tin	7440-31-5	2.55	J	10.2	0.224		1
06970	Titanium	7440-32-6	945		1.02	0.173		1

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Sample Description: SL-651-SA5C-TR-15.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483443
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 11:14 by RE

Submitted: 05/31/2014 10:20
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CDM Federal Programs Corp.
3201 Jermantown Road
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Fairfax VA 22030

65115 SDG#: PH209-05

CAT No.	Analysis Name		CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals		**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06971	Vanadium		7440-62-2	34.0		1.02	0.132		1
06972	Zinc		7440-66-6	49.9		4.07	0.203		1
10146	Zirconium		7440-67-7	3.34	J	5.08	0.854		1
		SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium		7782-49-2	0.122	J	0.407	0.102		2
06142	Silver		7440-22-4	0.0296	J	0.203	0.0264		2
06144	Strontium		7440-24-6	19.3		0.407	0.0691		2
06145	Thallium		7440-28-0	0.274		0.203	0.0305		2
		SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A		7439-97-6	0.0160	J	0.0171	0.0103		1
Wet Chemistry		**SW-846 7199**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05892	2a Chromium VI by EPA 7199		18540-29-9	0.44	U	0.44	0.15		1
		SW-846 9045D modified		**Std. Units**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 21.6 C.		n.a.	8.14		0.0100	0.0100		1
Wet Chemistry		**EPA 160.3 modified**		**%**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.		n.a.	5.4		0.10	0.10		1

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CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.04 U	1.04	0.0490		1
11031	12378-PeCDD	40321-76-4	0.0497 JBQ	5.21	0.0358		1
11031	123478-HxCDD	39227-28-6	0.0325 JBQ	5.21	0.0273		1
11031	123678-HxCDD	57653-85-7	0.0864 JBQ	5.21	0.0293		1
11031	123789-HxCDD	19408-74-3	0.154 JBQ	5.21	0.0262		1
11031	1234678-HpCDD	35822-46-9	0.808 JB	5.21	0.0328		1
11031	OCDD	3268-87-9	9.79 JB	10.4	0.0186		1
11031	2378-TCDF	51207-31-9	1.04 U	1.04	0.0443		1
11031	12378-PeCDF	57117-41-6	0.118 JBQ	5.21	0.0174		1
11031	23478-PeCDF	57117-31-4	0.0354 JB	5.21	0.0175		1
11031	123478-HxCDF	70648-26-9	0.104 JB	5.21	0.0264		1
11031	123678-HxCDF	57117-44-9	0.0819 JB	5.21	0.0242		1
11031	123789-HxCDF	72918-21-9	0.168 JBQ	5.21	0.0281		1
11031	234678-HxCDF	60851-34-5	0.0603 JBQ	5.21	0.0242		1
11031	1234678-HpCDF	67562-39-4	0.232 JBQ	5.21	0.0100		1
11031	1234789-HpCDF	55673-89-7	0.0608 JB	5.21	0.0158		1
11031	OCDF	39001-02-0	0.620 JBQ	10.4	0.0323		1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0408				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	80	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	86	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	92	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	79	17 - 157
13C12-2378-TCDF	77	24 - 169
13C12-12378-PeCDF	93	24 - 185
13C12-23478-PeCDF	88	21 - 178
13C12-123478-HxCDF	78	26 - 152
13C12-123678-HxCDF	86	26 - 123
13C12-234678-HxCDF	82	28 - 136
13C12-123789-HxCDF	83	29 - 147
13C12-1234678-HpCDF	101	28 - 143
13C12-1234789-HpCDF	71	26 - 138
13C12-OCDF	65	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

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Sample Description: SL-651-SA5C-TR-15.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483443
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 11:14 by RE

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65115 SDG#: PH209-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Action Limit	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

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65115 SDG#: PH209-05

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	8a SVOCs by EPA 8270D	SW-846 8270D	1	14154SLH026	06/13/2014 08:12	Brian K Graham	1
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14154SLI026	06/10/2014 07:52	Mark A Clark	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	14154SLH026	06/04/2014 09:30	David S Schrum	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14154SLI026	06/04/2014 09:30	David S Schrum	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14154A16A	06/04/2014 08:15	Laura M Krieger	24.65
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201415134672	05/31/2014 16:47	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201415134672	05/31/2014 16:47	Mitchell R Washel	n.a.
10132	24a Energetics by 8330A	SW-846 8330A	1	141550001A	06/06/2014 23:05	James H Place	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	141540008A	06/04/2014 16:06	Lisa A Reinert	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141550002A	06/05/2014 20:12	Richard A Shober	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141530004A	06/09/2014 12:19	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141540027A	06/10/2014 03:57	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141540027A	06/04/2014 07:40	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141530004A	06/02/2014 15:00	Kelli M Barto	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	141540008A	06/03/2014 13:45	Seth A Farrier	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141550002A	06/05/2014 06:15	Maria Davenport	1
11137	Energetics Extraction	SW-846 8330	1	141550001A	06/04/2014 13:15	Wanda F Oswald	1
12934	26a Glycols by EPA 8015C	SW-846 8015B	1	141550013A	06/06/2014 22:01	Tyler O Griffin	1
10318	27a Terphenyls by 8015B	SW-846 8015B	1	141560017A	06/06/2014 16:55	Glorines Suarez-Rivera	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540029A	06/04/2014 20:20	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540030A	06/06/2014 01:07	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540030A	06/04/2014 09:30	David S Schrum	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540029A	06/04/2014 09:30	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	141560017A	06/05/2014 17:00	JoElla L Rice	1
12933	Glycols Sonication Extraction	SW-846 3550C	1	141550013A	06/04/2014 20:00	David V Hershey Jr	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-651-SA5C-TR-15.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7483443
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 11:14 by RE

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65115 SDG#: PH209-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14160002	06/13/2014 01:59	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14160002	06/09/2014 10:50	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
06944	Antimony	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
06951	Chromium	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
06955	Lead	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
06958	Manganese	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
06970	Titanium	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	141540637001	06/04/2014 23:58	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	141540637001B	06/05/2014 07:17	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141540637001A	06/05/2014 07:17	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141540637001A	06/05/2014 07:17	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141540637001A	06/05/2014 07:17	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141540638001	06/09/2014 10:06	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141540637001	06/04/2014 08:27	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141540638001	06/05/2014 10:28	James L Mertz	1
05892	2a Chromium VI by EPA 7199	SW-846 7199	1	14155243201A	06/05/2014 19:07	Clinton M Wilson	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14151039401A	05/31/2014 16:00	Luz M Groff	1
02432	Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	14155243201A	06/04/2014 21:20	Daniel S Smith	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14156162401B	06/05/2014 20:03	Scott W Freisher	1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: TB3-053014 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7483444
LL Group # 1478425
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 05/30/2014 08:00

Submitted: 05/31/2014 10:20
Reported: 07/07/2014 12:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

3--TB SDG#: PH209-06TB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20		1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14150B94A	06/03/2014 11:34	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14150B94A	06/03/2014 11:34	Laura M Krieger	1

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478425
Reported: 07/07/14 at 12:03 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14154SLH026	Sample number(s): 7483433-7483434,7483438-7483439,7483441-7483443									
Acenaphthene	17	U	17.	3	ug/kg	86		83-111		
Acenaphthylene	17	U	17.	3	ug/kg	93		83-127		
Aniline	500 U		500.	170	ug/kg	66		43-110		
Anthracene	17	U	17.	3	ug/kg	93		82-118		
Benzidine	3,300 U		3,300.	700	ug/kg	33		21-78		
Benzo(a)anthracene	17	U	17.	3	ug/kg	89		81-117		
Benzo(a)pyrene	17	U	17.	3	ug/kg	98		84-122		
Benzo(b)fluoranthene	17	U	17.	3	ug/kg	83		83-124		
Benzo(g,h,i)perylene	17	U	17.	3	ug/kg	90		82-120		
Benzo(k)fluoranthene	17	U	17.	3	ug/kg	99		80-125		
Benzoic acid	500 U		500.	170	ug/kg	73		41-122		
Benzyl alcohol	500 U		500.	170	ug/kg	103		81-121		
1,1'-Biphenyl	33	U	33.	17	ug/kg	85		76-117		
4-Bromophenyl-phenylether	33	U	33.	17	ug/kg	91		84-120		
Butylbenzylphthalate	170 U		170.	67	ug/kg	84		80-118		
Di-n-butylphthalate	170 U		170.	67	ug/kg	90		84-120		
Carbazole	33	U	33.	17	ug/kg	88		84-119		
4-Chloro-3-methylphenol	33	U	33.	17	ug/kg	95		86-128		
4-Chloroaniline	33	U	33.	17	ug/kg	28		10-105		
bis(2-Chloroethoxy)methane	33	U	33.	17	ug/kg	86		71-121		
bis(2-Chloroethyl)ether	33	U	33.	17	ug/kg	88		77-115		
bis(2-Chloroisopropyl)ether	33	U	33.	17	ug/kg	89		56-129		
2-Chloronaphthalene	33	U	33.	7	ug/kg	99		63-146		
2-Chlorophenol	33	U	33.	17	ug/kg	97		80-122		
4-Chlorophenyl-phenylether	33	U	33.	17	ug/kg	94		83-115		
Chrysene	17	U	17.	3	ug/kg	91		77-116		
Dibenz(a,h)anthracene	17	U	17.	3	ug/kg	93		81-123		
Dibenzofuran	33	U	33.	17	ug/kg	89		85-115		
1,2-Dichlorobenzene	33	U	33.	17	ug/kg	93		79-112		
1,3-Dichlorobenzene	33	U	33.	17	ug/kg	91		79-113		
1,4-Dichlorobenzene	33	U	33.	17	ug/kg	90		79-112		
3,3'-Dichlorobenzidine	330 U		330.	100	ug/kg	39		10-125		
2,4-Dichlorophenol	33	U	33.	17	ug/kg	97		81-123		
2,6-Dichlorophenol	33	U	33.	17	ug/kg	96	95	77-113	0	30
Diethylphthalate	170 U		170.	67	ug/kg	87		82-113		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478425
Reported: 07/07/14 at 12:03 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
2,4-Dimethylphenol	33	U	33.	17	ug/kg	93		83-120		
3,5-Dimethylphenol	170	U	170.	33	ug/kg	120		70-130		
Dimethylphthalate	170	U	170.	67	ug/kg	88		82-113		
4,6-Dinitro-2-methylphenol	500	U	500.	170	ug/kg	64*		67-131		
2,4-Dinitrophenol	1,000	U	1,000.	300	ug/kg	44		35-141		
1,2-Diphenylhydrazine	33	U	33.	17	ug/kg	88		77-111		
bis(2-Ethylhexyl)phthalate	170	U	170.	67	ug/kg	87		75-124		
Fluoranthene	17	U	17.	3	ug/kg	90		79-123		
Fluorene	17	U	17.	3	ug/kg	91		86-118		
Hexachlorobenzene	17	U	17.	3	ug/kg	96		80-121		
Hexachlorobutadiene	33	U	33.	17	ug/kg	92		78-121		
Hexachlorocyclopentadiene	500	U	500.	170	ug/kg	91		66-159		
Hexachloroethane	170	U	170.	33	ug/kg	88		78-114		
Indeno(1,2,3-cd)pyrene	17	U	17.	3	ug/kg	89		84-121		
Isophorone	33	U	33.	17	ug/kg	93		77-119		
1-Methylnaphthalene	17	U	17.	3	ug/kg	89		77-115		
2-Methylnaphthalene	17	U	17.	3	ug/kg	88		83-109		
2-Methylphenol	33	U	33.	17	ug/kg	100		82-125		
4-Methylphenol	33	U	33.	17	ug/kg	95		78-126		
Naphthalene	17	U	17.	3	ug/kg	87		83-112		
NDPA as diphenylamine	170	U	170.	33	ug/kg	91		70-130		
2-Nitroaniline	33	U	33.	17	ug/kg	94		84-126		
3-Nitroaniline	170	U	170.	67	ug/kg	82		66-128		
4-Nitroaniline	170	U	170.	67	ug/kg	56*		57-106		
Nitrobenzene	33	U	33.	17	ug/kg	88		73-118		
2-Nitrophenol	33	U	33.	17	ug/kg	91		83-125		
4-Nitrophenol	500	U	500.	170	ug/kg	78		58-128		
N-Nitroso-di-n-propylamine	33	U	33.	17	ug/kg	88		70-119		
N-Nitrosodimethylamine	170	U	170.	67	ug/kg	87		67-116		
N-Nitrosodiphenylamine	33	U	33.	17	ug/kg	92		83-118		
Di-n-octylphthalate	170	U	170.	67	ug/kg	97		82-134		
Pentachlorophenol	170	U	170.	33	ug/kg	86		57-128		
Phenanthrene	17	U	17.	3	ug/kg	87		85-116		
Phenol	33	U	33.	17	ug/kg	96		76-124		
Pyrene	17	U	17.	3	ug/kg	84		81-114		
Pyridine	170	U	170.	67	ug/kg	75		51-109		
1,2,4-Trichlorobenzene	33	U	33.	17	ug/kg	92		84-119		
2,4,5-Trichlorophenol	33	U	33.	17	ug/kg	95		86-123		
2,4,6-Trichlorophenol	33	U	33.	17	ug/kg	95		81-123		

Batch number: 14154SLI026 Sample number(s): 7483433-7483434,7483438-7483439,7483441-7483443

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478425
Reported: 07/07/14 at 12:03 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Acenaphthene	1.7	U	1.7	0.67	ug/kg	103		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	96		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	104		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	98		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	86		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	93		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	77*		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	97		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	87		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	97		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	99		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	93		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	103		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	83		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	87		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	99		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	105		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	95		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	103		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	97		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	102		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	100		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	93		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	94		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	98		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	92		80-119		
Batch number: 14150B94A	Sample number(s): 7483444									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	97	92	80-133	6	30
Batch number: 14154A16A	Sample number(s): 7483434,7483438-7483439,7483441-7483443									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	77		67-120		
Batch number: 141550001A	Sample number(s): 7483433-7483434,7483438-7483439,7483441-7483443									
4-Amino-2,6-Dinitrotoluene	300 U		300.	150	ug/kg	113		81-133		
2-Amino-4,6-Dinitrotoluene	300 U		300.	100	ug/kg	102		79-120		
2,6-Diamino-4-nitrotoluene	400 U		400.	200	ug/kg	100	100	59-133	0	30
2,4-Diamino-6-nitrotoluene	400 U		400.	200	ug/kg	99	99	58-132	0	30
1,3-Dinitrobenzene	300 U		300.	100	ug/kg	114		94-124		
2,4-Dinitrotoluene	300 U		300.	100	ug/kg	111		83-125		
2,6-Dinitrotoluene	300 U		300.	100	ug/kg	105		72-137		
HMX	400 U		400.	200	ug/kg	112		65-121		
Nitrobenzene	300 U		300.	100	ug/kg	102		81-116		
Nitroglycerin	2,000 U		2,000.	1,000	ug/kg	95		70-118		
2-Nitrotoluene	300 U		300.	200	ug/kg	105		86-113		

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478425
Reported: 07/07/14 at 12:03 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
3-Nitrotoluene	300 U		300.	250	ug/kg	103		85-135		
4-Nitrotoluene	300 U		300.	200	ug/kg	104		80-122		
PETN	2,000 U		2,000.	1,000	ug/kg	158*		64-121		
RDX	300 U		300.	130	ug/kg	107		84-122		
Tetryl	300 U		300.	160	ug/kg	92		67-152		
1,3,5-Trinitrobenzene	300 U		300.	100	ug/kg	112		83-119		
2,4,6-Trinitrotoluene	300 U		300.	100	ug/kg	102		82-133		
Batch number: 141540008A	Sample number(s): 7483433-7483434,7483438-7483439,7483441-7483443									
2,4-D	36	U	36.	12	ug/kg	112		68-160		
Dalapon	90	U	90.	44	ug/kg	61		13-128		
2,4-DB	17	U	17.	6.2	ug/kg	102		73-159		
Dicamba	12	U	12.	4.0	ug/kg	110		64-128		
Dinoseb	24	U	24.	9.0	ug/kg	34		10-56		
2,4-DP (Dichlorprop)	17	U	17.	9.0	ug/kg	149		86-178		
MCPA	2,500 U		2,500.	760	ug/kg	95		61-123		
MCPP (Mecoprop)	2,500 U		2,500.	750	ug/kg	93		59-128		
2,4,5-T	1.7	U	1.7	0.82	ug/kg	119		69-157		
2,4,5-TP	1.7	U	1.7	0.75	ug/kg	121		78-146		
Batch number: 141550002A	Sample number(s): 7483433-7483434,7483438-7483439,7483441-7483443									
6a Perchlorate (Method 6850)	5.0	U	5.0	2.1	ug/kg	102		85-115		
Batch number: 141530004A	Sample number(s): 7483433-7483434,7483438-7483439,7483441-7483443									
Aldrin	0.83	U	0.83	0.17	ug/kg	86		60-118		
Alpha BHC	0.83	U	0.83	0.17	ug/kg	88		55-135		
Beta BHC	1.9	U	1.9	0.96	ug/kg	89		67-129		
Gamma BHC - Lindane	0.83	U	0.83	0.17	ug/kg	91		56-138		
Chlordane	17	U	17.	4.0	ug/kg					
p,p-DDD	1.7	U	1.7	0.33	ug/kg	100		69-141		
p,p-DDE	1.7	U	1.7	0.33	ug/kg	100		69-130		
p,p-DDT	1.7	U	1.7	0.35	ug/kg	100		64-139		
Delta BHC	0.83	U	0.83	0.45	ug/kg	89		59-137		
Dieldrin	1.7	U	1.7	0.33	ug/kg	94		68-134		
Endosulfan I	0.83	U	0.83	0.22	ug/kg	88		56-128		
Endosulfan II	1.7	U	1.7	0.33	ug/kg	92		68-128		
Endosulfan Sulfate	1.7	U	1.7	0.33	ug/kg	93		71-132		
Endrin	1.7	U	1.7	0.33	ug/kg	92		70-132		
Endrin Aldehyde	1.7	U	1.7	0.33	ug/kg	85		61-125		
Endrin Ketone	1.8	U	1.8	0.60	ug/kg	89		69-126		
Heptachlor	0.83	U	0.83	0.17	ug/kg	89		57-130		
Heptachlor Epoxide	0.83	U	0.83	0.17	ug/kg	94		69-125		
Methoxychlor	6.7	U	6.7	1.7	ug/kg	100		67-136		
Mirex	1.7	U	1.7	0.35	ug/kg					
Toxaphene	33	U	33.	14	ug/kg					
Batch number: 141540027A	Sample number(s): 7483433-7483434,7483438-7483439,7483441-7483443									

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478425
Reported: 07/07/14 at 12:03 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	96	97	36-106	1	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	116		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	125		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141550013A	Sample number(s): 7483433-7483434,7483438-7483439,7483441-7483443									
Diethylene glycol	10	U	10.	5.0	mg/kg	100		54-149		
Ethylene glycol	10	U	10.	5.0	mg/kg	98		76-122		
Propylene glycol	10	U	10.	5.0	mg/kg	102		67-131		
Triethylene glycol	10	U	10.	5.0	mg/kg	100		34-145		
Batch number: 141540029A	Sample number(s): 7483433-7483434,7483438-7483439,7483441-7483443									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	108		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	110		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	109		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	75		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	92		60-115		
Batch number: 141540030A	Sample number(s): 7483433-7483434,7483438-7483439,7483441-7483443									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	79		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	82		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	83		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	66		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	58*		60-115		
Batch number: 141560017A	Sample number(s): 7483433-7483434,7483438-7483439,7483441-7483443									
m-Terphenyl	0.17	U	0.17	0.067	mg/kg	99		64-111		
o-Terphenyl	0.17	U	0.17	0.067	mg/kg	96		75-125		
p-Terphenyl	0.17	U	0.17	0.067	mg/kg	90		69-109		
Batch number: 141540637001	Sample number(s): 7483433-7483434,7483438-7483443									
Aluminum	40.0	U	40.0	7.21	mg/kg	105		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	106		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	105		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	105		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	106		80-120		
Boron	10.0	U	10.0	0.840	mg/kg	99		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	106		80-120		
Calcium	9.64	J	20.0	3.34	mg/kg	104		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	105		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	106		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	107		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	105		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	107		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	104		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	102		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	104		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478425
Reported: 07/07/14 at 12:03 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Nickel	2.00	U	2.00	0.130	mg/kg	109		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	106		80-120		
Potassium	100 U		100.	8.34	mg/kg	103		80-120		
Sodium	100 U		100.	16.7	mg/kg	101		80-120		
Tin	1.45	J	10.0	0.220	mg/kg	103		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	105		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	108		80-120		
Zinc	4.00	U	4.00	0.200	mg/kg	104		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	106		80-120		
Batch number: 141540637001A	Sample number(s): 7483433-7483434,7483438-7483443									
Silver	0.200	U	0.200	0.0260	mg/kg	111		80-120		
Strontium	0.400	U	0.400	0.0680	mg/kg	113		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	112		80-120		
Batch number: 141540637001B	Sample number(s): 7483433-7483434,7483438-7483443									
Selenium	0.400	U	0.400	0.100	mg/kg	107		80-120		
Batch number: 141540638001	Sample number(s): 7483433-7483434,7483438-7483443									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	99		85-120		
Batch number: 14155243201A	Sample number(s): 7483433-7483437,7483440-7483443									
2a Chromium VI by EPA 7199	0.40	U	0.40	0.14	mg/kg	89		80-120		
Batch number: 14151039401A	Sample number(s): 7483433-7483434,7483440-7483443									
15a pH by 9045D						100		95-105		
Batch number: 14156162401B	Sample number(s): 7483433-7483443									
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14160002	Sample number(s): 7483433-7483434,7483438-7483439,7483441-7483443									
2378-TCDD	1.00	U	1.00	0.0486	ng/kg	100		67-158		
12378-PeCDD	0.0623	J	5.00	0.0314	ng/kg	97		70-142		
123478-HxCDD	0.0505	J	5.00	0.0211	ng/kg	97		70-164		
123678-HxCDD	0.0328	J	5.00	0.0226	ng/kg	97		76-134		
123789-HxCDD	0.0326	J	5.00	0.0213	ng/kg	98		64-162		
1234678-HpCDD	0.159	J	5.00	0.0201	ng/kg	94		70-140		
OCDD	0.459	J	10.0	0.0215	ng/kg	91		78-144		
2378-TCDF	1.00	U	1.00	0.0379	ng/kg	109		75-158		
12378-PeCDF	0.0587	J	5.00	0.0170	ng/kg	98		80-134		
23478-PeCDF	0.0596	J	5.00	0.0168	ng/kg	98		68-160		
123478-HxCDF	0.0633	J	5.00	0.0159	ng/kg	95		72-134		
123678-HxCDF	0.0543	J	5.00	0.0144	ng/kg	98		84-130		
123789-HxCDF	0.0652	J	5.00	0.0156	ng/kg	97		78-130		
234678-HxCDF	0.0505	J	5.00	0.0147	ng/kg	98		70-156		
1234678-HpCDF	0.0496	J	5.00	0.00822	ng/kg	94		82-122		
1234789-HpCDF	0.0531	J	5.00	0.0120	ng/kg	96		78-138		
OCDF	0.217	J	10.0	0.0258	ng/kg	95		63-170		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478425
Reported: 07/07/14 at 12:03 PM

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
TEQ WHO 2005 - EDLx0.0	0.0132			ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14154SLH026	Sample number(s): 7483433-7483434,7483438-7483439,7483441-7483443 UNSPK: 7483434								
Acenaphthene	88	89	61-128	1	30				
Acenaphthylene	93	93	67-130	1	30				
Aniline	62	70	10-131	13	30				
Anthracene	92	93	41-142	1	30				
Benzidine	15*	17*	35-141	12	30				
Benzo(a)anthracene	92	92	32-150	0	30				
Benzo(a)pyrene	94	97	36-151	2	30				
Benzo(b)fluoranthene	84	92	29-150	8	30				
Benzo(g,h,i)perylene	96	99	41-147	3	30				
Benzo(k)fluoranthene	89	92	44-145	3	30				
Benzoic acid	76	76	23-170	1	30				
Benzyl alcohol	93	96	32-145	4	30				
1,1'-Biphenyl	90	89	64-120	0	30				
4-Bromophenyl-phenylether	94	94	66-122	0	30				
Butylbenzylphthalate	89	87	67-126	2	30				
Di-n-butylphthalate	91	90	70-124	1	30				
Carbazole	86	86	63-126	0	30				
4-Chloro-3-methylphenol	85	87	61-131	2	30				
4-Chloroaniline	43	67	11-114	43*	30				
bis(2-Chloroethoxy)methane	85	86	58-122	1	30				
bis(2-Chloroethyl)ether	85	86	66-122	2	30				
bis(2-Chloroisopropyl)ether	84	84	50-115	0	30				
2-Chloronaphthalene	91	83	50-140	9	30				
2-Chlorophenol	88	91	71-130	3	30				
4-Chlorophenyl-phenylether	92	92	65-117	1	30				
Chrysene	89	90	28-146	1	30				
Dibenz(a,h)anthracene	100	101	54-142	1	30				
Dibenzofuran	88	88	65-124	0	30				
1,2-Dichlorobenzene	87	89	72-114	2	30				
1,3-Dichlorobenzene	86	89	67-118	3	30				
1,4-Dichlorobenzene	86	87	68-119	2	30				
3,3'-Dichlorobenzidine	38	63	10-143	50*	30				
2,4-Dichlorophenol	93	94	54-135	1	30				
2,6-Dichlorophenol	0*	0*	56-133	0	30				
Diethylphthalate	84	84	66-120	1	30				
2,4-Dimethylphenol	84	84	62-132	0	30				
3,5-Dimethylphenol	111	114	70-130	2	30				
Dimethylphthalate	86	86	69-119	1	30				
4,6-Dinitro-2-methylphenol	76	65	10-148	16	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478425
Reported: 07/07/14 at 12:03 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
2,4-Dinitrophenol	56	44	20-143	24	30				
1,2-Diphenylhydrazine	87	87	51-145	0	30				
bis(2-Ethylhexyl)phthalate	93	92	60-134	0	30				
Fluoranthene	89	89	30-151	0	30				
Fluorene	87	88	55-128	1	30				
Hexachlorobenzene	98	98	46-132	1	30				
Hexachlorobutadiene	100	98	65-125	2	30				
Hexachlorocyclopentadiene	98	94	10-153	4	30				
Hexachloroethane	85	84	24-138	1	30				
Indeno(1,2,3-cd)pyrene	95	98	44-147	2	30				
Isophorone	92	92	68-119	0	30				
1-Methylnaphthalene	86	86	82-115	0	30				
2-Methylnaphthalene	85	86	39-140	1	30				
2-Methylphenol	87	89	62-133	3	30				
4-Methylphenol	82	85	59-132	4	30				
Naphthalene	88	89	44-142	0	30				
NDPA as diphenylamine	88	89	70-130	1	30				
2-Nitroaniline	92	95	64-131	3	30				
3-Nitroaniline	81	84	31-145	4	30				
4-Nitroaniline	67	70	30-131	5	30				
Nitrobenzene	88	88	63-125	0	30				
2-Nitrophenol	95	95	45-146	0	30				
4-Nitrophenol	73	73	25-142	1	30				
N-Nitroso-di-n-propylamine	79	82	58-126	3	30				
N-Nitrosodimethylamine	85	89	52-117	4	30				
N-Nitrosodiphenylamine	89	90	59-135	1	30				
Di-n-octylphthalate	102	103	48-155	1	30				
Pentachlorophenol	89	88	23-145	0	30				
Phenanthrene	86	86	34-147	1	30				
Phenol	86	87	61-130	2	30				
Pyrene	83	84	29-148	1	30				
Pyridine	75	80	16-108	6	30				
1,2,4-Trichlorobenzene	97	97	66-116	0	30				
2,4,5-Trichlorophenol	93	96	64-131	3	30				
2,4,6-Trichlorophenol	98	99	60-136	1	30				
Batch number: 14154SLI026	Sample number(s): 7483433-7483434,7483438-7483439,7483441-7483443 UNSPK: 7483434								
Acenaphthene	95	98	48-127	3	30				
Acenaphthylene	96	97	60-128	1	30				
Anthracene	100	102	52-126	2	30				
Benzo(a)anthracene	98	99	44-143	0	30				
Benzo(a)pyrene	85	87	49-137	2	30				
Benzo(b)fluoranthene	98	99	26-142	1	30				
Benzo(e)pyrene	76	77	63-111	1	30				
Benzo(g,h,i)perylene	83	87	33-141	5	30				
Benzo(k)fluoranthene	79	80	49-144	2	30				
Butylbenzylphthalate	96	97	64-156	0	30				
Di-n-butylphthalate	98	97	52-147	2	30				
Chrysene	92	92	43-141	0	30				
Dibenz(a,h)anthracene	92	96	25-145	4	30				
Diethylphthalate	81	84	66-140	3	30				
Dimethylphthalate	88	88	70-123	1	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478425
Reported: 07/07/14 at 12:03 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Bis(2-Ethylhexyl)phthalate	103	101	48-164	2	30				
Fluoranthene	96	98	38-153	2	30				
Fluorene	93	94	57-130	2	30				
Indeno(1,2,3-cd)pyrene	98	98	26-139	0	30				
1-Methylnaphthalene	93	94	59-139	1	30				
2-Methylnaphthalene	97	99	46-147	2	30				
Naphthalene	98	99	52-136	1	30				
N-Nitrosodimethylamine	84	84	39-134	1	30				
Di-n-octylphthalate	102	102	52-162	0	30				
Phenanthrene	101	100	50-137	1	30				
Pyrene	83	82	26-143	1	30				
Batch number: 14154A16A	Sample number(s): 7483434,7483438-7483439,7483441-7483443 UNSPK: 7483434								
11a TPH by EPA 8015B GRO	72	77	69-123	6	30				
Batch number: 141550001A	Sample number(s): 7483433-7483434,7483438-7483439,7483441-7483443 UNSPK: 7483434								
4-Amino-2,6-Dinitrotoluene	101	108	85-118	7	50				
2-Amino-4,6-Dinitrotoluene	90	98	69-113	8	50				
1,3-Dinitrobenzene	101	107	89-119	6	50				
2,4-Dinitrotoluene	99	105	81-111	6	50				
2,6-Dinitrotoluene	95	101	86-114	6	50				
HMX	96	108*	72-107	12	50				
Nitrobenzene	91	97	86-108	6	50				
Nitroglycerin	90	104	73-116	14	50				
2-Nitrotoluene	95	100	79-112	5	50				
3-Nitrotoluene	92	98	72-119	6	50				
4-Nitrotoluene	92	99	90-118	7	50				
PETN	195*	206*	71-133	5	50				
RDX	96	103	75-108	8	50				
Tetryl	77	86	58-125	11	50				
1,3,5-Trinitrobenzene	99	107	58-135	8	50				
2,4,6-Trinitrotoluene	91*	97	92-114	6	50				
Batch number: 141540008A	Sample number(s): 7483433-7483434,7483438-7483439,7483441-7483443 UNSPK: 7483434								
2,4-D	111	111	42-143	0	35				
Dalapon	0*	55	16-98	200*	50				
2,4-DB	114	118	10-179	3	50				
Dicamba	101	116	47-150	14	50				
Dinoseb	12	28	10-115	82*	35				
2,4-DP (Dichlorprop)	142	164	32-171	14	50				
MCPA	89	122	54-138	31	50				
MCPP (Mecoprop)	85	82	46-138	4	50				
2,4,5-T	125	137	12-172	9	35				
2,4,5-TP	117	114	65-156	3	35				
Batch number: 141550002A	Sample number(s): 7483433-7483434,7483438-7483439,7483441-7483443 UNSPK: 7483434								
6a Perchlorate (Method 6850)	105	102	80-120	3	20				
Batch number: 141530004A	Sample number(s): 7483433-7483434,7483438-7483439,7483441-7483443 UNSPK: 7483434								
Aldrin	94	85	16-126	10	50				
Alpha BHC	93	86	14-140	8	50				
Beta BHC	95	86	42-133	9	50				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478425
Reported: 07/07/14 at 12:03 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Gamma BHC - Lindane	96	88	30-137	9	50				
p,p-DDD	109	99	43-149	10	50				
p,p-DDE	112	103	35-152	9	50				
p,p-DDT	107	98	12-193	9	50				
Delta BHC	98	90	13-153	9	50				
Dieldrin	100	88	41-153	12	50				
Endosulfan I	91	83	26-146	9	50				
Endosulfan II	96	88	34-141	9	50				
Endosulfan Sulfate	96	89	10-181	7	50				
Endrin	98	90	30-152	9	50				
Endrin Aldehyde	88	82	23-138	6	50				
Endrin Ketone	92	85	30-148	8	50				
Heptachlor	95	87	16-152	9	50				
Heptachlor Epoxide	99	90	33-144	10	50				
Methoxychlor	106	97	41-161	8	50				
Batch number: 141540027A	Sample number(s): 7483433-7483434,7483438-7483439,7483441-7483443 UNSPK: 7483434								
PCB-1016	115	110	41-135	4	50				
PCB-1260	121	113	40-134	7	50				
Batch number: 141550013A	Sample number(s): 7483433-7483434,7483438-7483439,7483441-7483443 UNSPK: 7483434								
Diethylene glycol	21*	25*	59-109	15	20				
Ethylene glycol	84	96	63-107	14	20				
Propylene glycol	93	108*	63-107	15	20				
Triethylene glycol	3*	4*	66-122	30*	20				
Batch number: 141540029A	Sample number(s): 7483433-7483434,7483438-7483439,7483441-7483443 UNSPK: 7483434								
EFH (C12-C14)	94	92	49-123	2	20				
EFH (C15-C20)	107	100	49-123	7	20				
EFH (C21-C30)	96	83	49-123	10	20				
EFH (C30-C40)	58	47*	49-123	10	20				
EFH (C8-C11)	90	89	49-123	1	20				
Batch number: 141540030A	Sample number(s): 7483433-7483434,7483438-7483439,7483441-7483443 UNSPK: 7483434								
EFH C12-C14 w/ SiGel	74	79	49-123	7	20				
EFH C15-C20 w/ SiGel	79	82	49-123	5	20				
EFH C21-C30 w/ SiGel	155*	84	49-123	59*	20				
EFH C30-C40 w/ SiGel	73	72	49-123	1	20				
EFH C8-C11 w/ SiGel	53	59	49-123	11	20				
Batch number: 141560017A	Sample number(s): 7483433-7483434,7483438-7483439,7483441-7483443 UNSPK: 7483434								
m-Terphenyl	89	97	75-125	9	20				
o-Terphenyl	87	96	75-125	9	20				
p-Terphenyl	83	90	75-125	8	20				
Batch number: 141540637001	Sample number(s): 7483433-7483434,7483438-7483443 UNSPK: 7483434 BKG: 7483434								
Aluminum	618 (2)	1777 (2)	75-125	20	20	9,070	8,860	2	20
Antimony	71*	67*	75-125	5	20	3.96 U	3.88 U	0 (1)	20
Arsenic	97	103	75-125	6	20	3.02 J	6.16	68* (1)	20
Barium	98	104	75-125	6	20	57.9	59.0	2	20
Beryllium	101	106	75-125	6	20	0.428 J	0.442 J	3 (1)	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478425
Reported: 07/07/14 at 12:03 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc		DUP Conc		DUP RPD	Dup RPD Max
Boron	95	96	75-125	4	20	1.67	J	1.97	J	16 (1)	20
Cadmium	99	98	75-125	1	20	0.990	U	0.971	U	0 (1)	20
Calcium	33 (2)	209 (2)	75-125	28*	20	2,040		2,050		1	20
Chromium	92	109	75-125	13	20	8.95		9.36		5 (1)	20
Cobalt	97	97	75-125	2	20	3.29		3.36		2 (1)	20
Copper	100	115	75-125	14	20	4.22		4.58		8 (1)	20
Iron	-955 (2)	2923 (2)	75-125	23*	20	15,500		16,300		6	20
Lead	92	106	75-125	12	20	4.72		5.01		6 (1)	20
Lithium	103	106	75-125	4	20	21.4		22.7		6	20
Magnesium	44 (2)	433 (2)	75-125	21*	20	3,190		3,350		5	20
Manganese	64 (2)	106 (2)	75-125	8	20	237		241		2	20
Molybdenum	97	97	75-125	2	20	0.294	J	0.168	J	55* (1)	20
Nickel	98	99	75-125	3	20	5.52		5.42		2 (1)	20
Phosphorus	75	166*	75-125	21*	20	318		338		6	20
Potassium	116	145*	75-125	8	20	2,710		2,720		1	20
Sodium	99	100	75-125	3	20	68.0	J	68.2	J	0 (1)	20
Tin	92	91	75-125	1	20	2.50	J	2.55	J	2 (1)	20
Titanium	219 (2)	305 (2)	75-125	8	20	838		884		5	20
Vanadium	100	113	75-125	10	20	19.9		21.1		6	20
Zinc	96	117	75-125	11	20	54.1		56.6		4	20
Zirconium	102	102	75-125	2	20	1.85	J	2.67	J	36* (1)	20
Batch number: 141540637001A	Sample number(s): 7483433-7483434,7483438-7483443 UNSPK: 7483434 BKG: 7483434										
Silver	101	102	75-125	2	20	0.198	U	0.194	U	0 (1)	20
Strontium	97	107	75-125	5	20	9.02		9.92		10	20
Thallium	103	99	75-125	1	20	0.216		0.234		8 (1)	20
Batch number: 141540637001B	Sample number(s): 7483433-7483434,7483438-7483443 UNSPK: 7483434 BKG: 7483434										
Selenium	106	109	75-125	4	20	0.396	U	0.133	J	200* (1)	20
Batch number: 141540638001	Sample number(s): 7483433-7483434,7483438-7483443 UNSPK: 7483434 BKG: 7483434										
3a Mercury 7471A	110	111	65-135	2	20	0.0157	U	0.0164	U	0 (1)	20
Batch number: 14155243201A	Sample number(s): 7483433-7483437,7483440-7483443 UNSPK: 7483434 BKG: 7483434										
2a Chromium VI by EPA 7199	80		75-125			0.40	U	0.40	U	0 (1)	20
Batch number: 14151039401A	Sample number(s): 7483433-7483434,7483440-7483443 BKG: 7483434										
15a pH by 9045D						7.85		7.85		0	3
Batch number: 14156162401B	Sample number(s): 7483433-7483443 BKG: 7483434										
14a Moisture Content by 160.3						4.6		4.9		7	20
14a Moisture Content by 160.3						4.6		4.9		7	20
14a Moisture Content by 160.3						4.6		4.9		7	20
Batch number: 14160002	Sample number(s): 7483433-7483434,7483438-7483439,7483441-7483443 UNSPK: 7483434										
2378-TCDD	91	92	40-135	4	20						
12378-PeCDD	94	95	40-135	5	20						
123478-HxCDD	95	92	40-135	0	20						
123678-HxCDD	93	92	40-135	2	20						
123789-HxCDD	93	92	40-135	2	20						
1234678-HpCDD	90	91	40-135	4	20						

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478425
Reported: 07/07/14 at 12:03 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
OCDD	81	83	40-135	4	20				
2378-TCDF	99	103	40-135	7	20				
12378-PeCDF	93	92	40-135	2	20				
23478-PeCDF	93	93	40-135	3	20				
123478-HxCDF	93	93	40-135	3	20				
123678-HxCDF	95	93	40-135	2	20				
123789-HxCDF	94	92	40-135	1	20				
234678-HxCDF	94	95	40-135	4	20				
1234678-HpCDF	90	89	40-135	3	20				
1234789-HpCDF	91	90	40-135	3	20				
OCDF	90	91	40-135	3	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8a SVOCs by EPA 8270D
Batch number: 14154SLH026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
7483433	77	85	85	80	85	96
7483434	75	83	86	76	83	89
7483438	80	89	89	85	91	97
7483439	81	90	91	84	90	97
7483441	79	87	89	81	87	94
7483442	85	93	94	86	92	100
7483443	81	88	89	82	89	96
Blank	86	95	107	90	95	110
LCS	91	97	93	83	87	96
LCSD	94	99	96	85	90	99
MS	80	89	89	85	91	97
MSD	81	90	91	84	90	97
Limits:	25-120	25-130	35-130	40-130	45-130	45-130

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14154SLI026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7483433	91	101	85
7483434	111	119*	97
7483438	95	109	86
7483439	96	111	88
7483441	84	96	79
7483442	83	90	74
7483443	85	98	80
Blank	89	99	77

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478425
Reported: 07/07/14 at 12:03 PM

Surrogate Quality Control

LCS	102	117	92
MS	95	109	86
MSD	96	111	88
Limits:	59-115	61-118	70-127

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14150B94A

	Trifluorotoluene-F
7483444	84
Blank	81
LCS	91
LCSD	85
Limits:	63-135

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 14154A16A

	Trifluorotoluene-F
7483434	89
7483438	83
7483439	87
7483441	90
7483442	81
7483443	89
Blank	90
LCS	96
MS	83
MSD	87
Limits:	50-142

Analysis Name: 20a Pesticides by EPA 8081B
Batch number: 141530004A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7483433	86	87
7483434	93	99
7483438	94	102
7483439	85	92
7483441	90	97
7483442	91	100
7483443	88	94
Blank	90	100
LCS	92	105
MS	94	102
MSD	85	92
Limits:	50-130	20-120

Analysis Name: 21a Herbicides by EPA 8151A
Batch number: 141540008A

	2,4-Dichlorophenylacetic acid

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478425
Reported: 07/07/14 at 12:03 PM

Surrogate Quality Control

7483433	77
7483434	80
7483438	93
7483439	103
7483441	74
7483442	84
7483443	78
Blank	88
LCS	103
MS	93
MSD	103
Limits:	50-150

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141540027A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7483433	108	101
7483434	117	110
7483438	121*	116
7483439	116	110
7483441	118	109
7483442	113	106
7483443	116	108
Blank	116	110
LCS	122*	116
LCSD	124*	121*
MS	121*	116
MSD	116	110
Limits:	45-120	45-120

Analysis Name: 24a Energetics by 8330A
Batch number: 141550001A

	2-Nitro-m-xylene
7483433	130
7483434	122
7483438	106
7483439	104
7483441	126
7483442	117
7483443	119
Blank	112
LCS	113
LCSD	118
MS	106
MSD	104
Limits:	80-146

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141540029A

	Chlorobenzene	Orthoterphenyl

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478425
Reported: 07/07/14 at 12:03 PM

Surrogate Quality Control

7483433	86	92
7483434	93	95
7483438	78	94
7483439	77	92
7483441	77	92
7483442	80	94
7483443	68	83
Blank	78	94
LCS	108	111
MS	78	94
MSD	77	92
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141540030A

	Chlorobenzene	Orthoterphenyl
7483433	67	80
7483434	69	82
7483438	69	84
7483439	73	82
7483441	71	81
7483442	74	85
7483443	63	66
Blank	76	85
LCS	73	84
MS	69	84
MSD	73	82
Limits:	37-125	66-123

Analysis Name: 26a Glycols by EPA 8015C
Batch number: 141550013A

	Tetramethylene glycol
7483433	85
7483434	92
7483438	92
7483439	96
7483441	85
7483442	92
7483443	87
Blank	80
LCS	102
MS	92
MSD	96
Limits:	75-116

Analysis Name: 27a Terphenyls by 8015B
Batch number: 141560017A

	n-Triacontane-d62
7483433	102

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478425
Reported: 07/07/14 at 12:03 PM

Surrogate Quality Control

7483434	104
7483438	99
7483439	108
7483441	96
7483442	96
7483443	105
Blank	102
LCS	106
MS	99
MSD	108
Limits:	19-152

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 14160002

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7483433	80	85	77	80	82	73
7483434	101	104	95	93	98	90
7483438	81	96	88	88	91	86
7483439	85	96	93	93	97	91
7483441	70	75	70	71	73	67
7483442	73	76	73	73	72	71
7483443	80	85	86	86	92	86
Blank	87	89	86	90	88	85
MS	81	96	88	88	91	86
MSD	85	96	93	93	97	91
OPR	78	90	86	85	86	81
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7483433	65	80	89	83	69	81
7483434	77	99	112	106	88	96
7483438	79	81	97	95	79	88
7483439	85	86	99	95	82	92
7483441	59	67	79	72	61	72
7483442	67	65	81	75	64	73
7483443	79	77	93	88	78	86
Blank	76	90	102	96	89	98
MS	79	81	97	95	79	88
MSD	85	86	99	95	82	92
OPR	72	80	99	95	85	92
Limits:	17-157	24-169	24-185	21-178	26-152	26-123

	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF
7483433	73	67	86	56	49
7483434	92	86	99	71	55
7483438	83	80	100	73	64
7483439	85	83	107	75	67
7483441	65	62	81	51	42
7483442	67	63	88	57	51
7483443	82	83	101	71	65

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Quality Control Summary

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Reported: 07/07/14 at 12:03 PM

Surrogate Quality Control

Blank	94	99	106	80	70
MS	83	80	100	73	64
MSD	85	83	107	75	67
OPR	88	83	103	74	64
Limits:	28-136	29-147	28-143	26-138	17-157

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SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 5/30/2014
CarrierName: FedEx
AirbillNo: 770151717677

A-13013
G-1478425
S-7483433-44

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140530-05
Cooler #: 3
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	~~Perchlorate 314.0/331~~	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
SL-651-SA5C-TR-0.5	5/30/14 08:18	SO	None	2 - 16 oz glass	10 day	X	X		X		X		X	X	X	X	X	X	X	X	X				X	X	X		X											Perchlorate by EPA 314 was removed per TB. NM 6/4/14
SL-651-SA5C-TR-5.0MS	5/30/14 08:40	SO	None	6 - 16 oz glass	10 day	X	X		X		X		X	X	X	X	X	X	X	X	X				X	X	X		X											
SL-651-SA5C-TR-5.0MS	5/30/14 08:40	SO	None	6 - Encore	10 day																			X																
SL-951-SA5C-TR-5.0	5/30/14 08:45	SO	None	2 - 16 oz glass	10 day	X	X		X		X		X	X	X	X	X	X	X	X	X				X	X	X		X											
SL-951-SA5C-TR-5.0	5/30/14 08:45	SO	None	2 - Encore	10 day																			X																
SL-651-SA5C-TR-10.0	5/30/14 09:22	SO	None	2 - 16 oz glass	10 day	X	X		X		X		X	X	X	X	X	X	X	X	X				X	X	X		X											
SL-651-SA5C-TR-10.0	5/30/14 09:22	SO	None	2 - Encore	10 day																			X																
SL-651-SA5C-TR-15.0	5/30/14 11:14	SO	None	2 - 16 oz glass	10 day	X	X		X		X		X	X	X	X	X	X	X	X	X				X	X	X		X											
SL-651-SA5C-TR-15.0	5/30/14 11:14	SO	None	2 - Encore	10 day																			X																
TB3-053014	5/30/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																			X																

Special Instructions: For all EFH, silica gel clean up required on half the extract. Analyze both extracts for EFH. For SVOC, biphenyls only.

Sampler: Ron Ellis

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
	05/30/14	1600									
										5/31/14	1020

TRENCHING

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Sample Administration Receipt Documentation Log

Doc Log ID: 16101

Group Number(s): 1478425

Client: CDM

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/31/2014 10:20
Number of Packages:	3	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	3
Custody Seal Present:	Yes	Trip Blank Type:	N/A
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	N/A		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Katherine Metzger (2241) at 13:48 on 05/31/2014

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT131	2.1	DT	Wet	Y	Bagged	N	N
2	DT131	3.4	DT	Wet	Y	Bagged	N	N
3	DT131	3.7	DT	Wet	Y	Bagged	N	N

General Comments: SL-651-SA5C-TR-0.5 - 1 broken 16 oz jar - not salvagable
SL-651-SA5C-TR-5.0-MS & SL-651-SA5C-TR-15.0 - 1 broken 16 oz jar - salvagable
SL-951-SA5C-TR-5.0 - 2 broken 16 oz jars - salvagable

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.cor

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 10, 2014

Project: SSFL Phase 3 Sampling

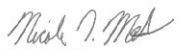
Submittal Date: 06/03/2014
Group Number: 1478735
SDG: PH211
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SVL-563-SA5C-SB-1.0-1.5 Soil	7484900
TB3-060214 Water	7484901
SVL-518-SA5C-SB-11.0-11.5 Soil	7484902
SVL-518-SA5C-SB-5.5-6.0 Soil	7484903
SVL-576-SA5B-SB-4.0-4.3 Soil	7484904

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,



Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: SVL-563-SA5C-SB-1.0-1.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7484900
LL Group # 1478735
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 08:40 by RE

Submitted: 06/03/2014 09:20
Reported: 06/10/2014 18:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56310 SDG#: PH211-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	21	U	21	7	0.98
10237	Acrolein	107-02-8	110	U	110	21	0.98
10237	Acrylonitrile	107-13-1	21	U	21	4	0.98
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.98
10237	Benzene	71-43-2	5	U	5	0.5	0.98
10237	Bromobenzene	108-86-1	5	U	5	1	0.98
10237	Bromochloromethane	74-97-5	5	U	5	1	0.98
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.98
10237	Bromoform	75-25-2	5	U	5	1	0.98
10237	Bromomethane	74-83-9	5	U	5	2	0.98
10237	2-Butanone	78-93-3	11	U	11	4	0.98
10237	t-Butyl alcohol	75-65-0	53	U	53	21	0.98
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.98
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.98
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.98
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.98
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.98
10237	Chlorobenzene	108-90-7	5	U	5	1	0.98
10237	Chloroethane	75-00-3	5	U	5	2	0.98
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	0.98
10237	Chloroform	67-66-3	5	U	5	1	0.98
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.98
10237	Chloromethane	74-87-3	5	U	5	2	0.98
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.98
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.98
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.98
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.98
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.98
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.98
10237	Dibromomethane	74-95-3	5	U	5	1	0.98
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.98
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.98
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.98
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.98
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.98
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.98
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.98
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.98
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.98
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.98
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.98
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.98
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.98
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.98
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.98
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.98
10237	Ethylbenzene	100-41-4	5	U	5	1	0.98
10237	Freon 113	76-13-1	5	U	5	2	0.98
10237	Freon 133a	75-88-7	5	U	5	2	0.98
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.98
10237	2-Hexanone	591-78-6	11	U	11	3	0.98

*=This limit was used in the evaluation of the final result

Sample Description: SVL-563-SA5C-SB-1.0-1.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7484900
LL Group # 1478735
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 08:40 by RE

Submitted: 06/03/2014 09:20
Reported: 06/10/2014 18:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56310 SDG#: PH211-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.98
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.98
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.98
10237	Methyl Iodide	74-88-4	5	U	5	3	0.98
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.98
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	0.98
10237	Methylene Chloride	75-09-2	5	U	5	2	0.98
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.98
10237	Styrene	100-42-5	5	U	5	1	0.98
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.98
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.98
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.98
10237	Toluene	108-88-3	5	U	5	1	0.98
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.98
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.98
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.98
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.98
10237	Trichloroethene	79-01-6	5	U	5	1	0.98
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.98
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.98
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.98
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.98
10237	Vinyl Acetate	108-05-4	11	U	11	2	0.98
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.98
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.98
10237	o-Xylene	95-47-6	5	U	5	1	0.98
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	7.0		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141562AA	06/05/2014 20:45	Andrea E Lando	0.98
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201415434683	06/03/2014 11:30	Larry E Bevins	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-563-SA5C-SB-1.0-1.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7484900
LL Group # 1478735
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 08:40 by RE

Submitted: 06/03/2014 09:20
Reported: 06/10/2014 18:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56310 SDG#: PH211-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201415434683	06/03/2014 11:30	Larry E Bevins	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201415434683	06/03/2014 11:25	Larry E Bevins	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14157162401A	06/06/2014 20:26	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: TB3-060214 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7484901
LL Group # 1478735
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 08:00

Submitted: 06/03/2014 09:20
Reported: 06/10/2014 18:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB362 SDG#: PH211-02TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	1	U	1	0.5	1
10335	Benzene	71-43-2	1	U	1	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	1	U	1	0.5	1
10335	Bromoform	75-25-2	4	U	4	0.5	1
10335	Bromomethane	74-83-9	1	U	1	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	1	U	1	0.5	1
10335	Chlorobenzene	108-90-7	1	U	1	0.5	1
10335	Chloroethane	75-00-3	1	U	1	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	1	U	1	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	1	U	1	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	1	U	1	0.5	1
10335	1,2-Dibromoethane	106-93-4	1	U	1	0.5	1
10335	Dibromomethane	74-95-3	1	U	1	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	1	U	1	0.5	1
10335	1,1-Dichloroethane	75-34-3	1	U	1	0.5	1
10335	1,2-Dichloroethane	107-06-2	1	U	1	0.5	1
10335	1,1-Dichloroethene	75-35-4	1	U	1	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	1	U	1	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	1	U	1	0.5	1
10335	1,2-Dichloropropane	78-87-5	1	U	1	0.5	1
10335	1,3-Dichloropropane	142-28-9	1	U	1	0.5	1
10335	2,2-Dichloropropane	594-20-7	1	U	1	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	1	U	1	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	1	U	1	0.5	1
10335	Ethyl t-butyl ether	637-92-3	1	U	1	0.5	1
10335	Ethylbenzene	100-41-4	1	U	1	0.5	1
10335	Freon 113	76-13-1	10	U	10	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: TB3-060214 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7484901
LL Group # 1478735
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 08:00

Submitted: 06/03/2014 09:20
Reported: 06/10/2014 18:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB362 SDG#: PH211-02TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	1	U	1	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	1	U	1	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	1	U	1	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	3	U	3	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	1	U	1	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	1	U	1	0.5	1
10335	Tetrachloroethene	127-18-4	1	U	1	0.5	1
10335	Toluene	108-88-3	1	U	1	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	1	U	1	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	1	U	1	0.5	1
10335	Trichloroethene	79-01-6	1	U	1	0.5	1
10335	Trichlorofluoromethane	75-69-4	1	U	1	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	1	U	1	0.5	1
10335	m+p-Xylene	179601-23-1	1	U	1	0.5	1
10335	o-Xylene	95-47-6	1	U	1	0.5	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141551AA	06/04/2014 13:11	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141551AA	06/04/2014 13:11	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-518-SA5C-SB-11.0-11.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7484902
LL Group # 1478735
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:45 by RE

Submitted: 06/03/2014 09:20
Reported: 06/10/2014 18:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51811 SDG#: PH211-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	21	U	21	7	0.98
10237	Acrolein	107-02-8	100	U	100	21	0.98
10237	Acrylonitrile	107-13-1	21	U	21	4	0.98
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.98
10237	Benzene	71-43-2	5	U	5	0.5	0.98
10237	Bromobenzene	108-86-1	5	U	5	1	0.98
10237	Bromochloromethane	74-97-5	5	U	5	1	0.98
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.98
10237	Bromoform	75-25-2	5	U	5	1	0.98
10237	Bromomethane	74-83-9	5	U	5	2	0.98
10237	2-Butanone	78-93-3	10	U	10	4	0.98
10237	t-Butyl alcohol	75-65-0	51	U	51	21	0.98
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.98
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.98
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.98
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.98
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.98
10237	Chlorobenzene	108-90-7	5	U	5	1	0.98
10237	Chloroethane	75-00-3	5	U	5	2	0.98
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.98
10237	Chloroform	67-66-3	5	U	5	1	0.98
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.98
10237	Chloromethane	74-87-3	5	U	5	2	0.98
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.98
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.98
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.98
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.98
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.98
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.98
10237	Dibromomethane	74-95-3	5	U	5	1	0.98
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.98
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.98
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.98
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.98
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.98
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.98
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.98
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.98
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.98
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.98
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.98
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.98
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.98
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.98
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.98
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.98
10237	Ethylbenzene	100-41-4	5	U	5	1	0.98
10237	Freon 113	76-13-1	5	U	5	2	0.98
10237	Freon 133a	75-88-7	5	U	5	2	0.98
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.98
10237	2-Hexanone	591-78-6	10	U	10	3	0.98

*=This limit was used in the evaluation of the final result

Sample Description: SVL-518-SA5C-SB-11.0-11.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7484902
LL Group # 1478735
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:45 by RE

Submitted: 06/03/2014 09:20
Reported: 06/10/2014 18:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51811 SDG#: PH211-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.98
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.98
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.98
10237	Methyl Iodide	74-88-4	5	U	5	3	0.98
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.98
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.98
10237	Methylene Chloride	75-09-2	5	U	5	2	0.98
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.98
10237	Styrene	100-42-5	5	U	5	1	0.98
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.98
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.98
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.98
10237	Toluene	108-88-3	5	U	5	1	0.98
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.98
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.98
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.98
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.98
10237	Trichloroethene	79-01-6	5	U	5	1	0.98
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.98
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.98
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.98
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.98
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.98
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.98
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.98
10237	o-Xylene	95-47-6	5	U	5	1	0.98
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	4.7		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141562AA	06/05/2014 21:08	Andrea E Lando	0.98
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201415434683	06/03/2014 11:30	Larry E Bevins	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-518-SA5C-SB-11.0-11.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7484902
LL Group # 1478735
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:45 by RE

Submitted: 06/03/2014 09:20
Reported: 06/10/2014 18:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51811 SDG#: PH211-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201415434683	06/03/2014 11:30	Larry E Bevins	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201415434683	06/03/2014 11:29	Larry E Bevins	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14157162401A	06/06/2014 20:26	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-518-SA5C-SB-5.5-6.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7484903
LL Group # 1478735
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:40 by RE

Submitted: 06/03/2014 09:20
Reported: 06/10/2014 18:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51855 SDG#: PH211-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	22	U	22	8	0.95
10237	Acrolein	107-02-8	110	U	110	22	0.95
10237	Acrylonitrile	107-13-1	22	U	22	4	0.95
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.95
10237	Benzene	71-43-2	5	U	5	0.5	0.95
10237	Bromobenzene	108-86-1	5	U	5	1	0.95
10237	Bromochloromethane	74-97-5	5	U	5	1	0.95
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.95
10237	Bromoform	75-25-2	5	U	5	1	0.95
10237	Bromomethane	74-83-9	5	U	5	2	0.95
10237	2-Butanone	78-93-3	11	U	11	4	0.95
10237	t-Butyl alcohol	75-65-0	55	U	55	22	0.95
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.95
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.95
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.95
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.95
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.95
10237	Chlorobenzene	108-90-7	5	U	5	1	0.95
10237	Chloroethane	75-00-3	5	U	5	2	0.95
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	0.95
10237	Chloroform	67-66-3	5	U	5	1	0.95
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.95
10237	Chloromethane	74-87-3	5	U	5	2	0.95
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.95
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.95
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.95
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.95
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.95
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.95
10237	Dibromomethane	74-95-3	5	U	5	1	0.95
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.95
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.95
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.95
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.95
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.95
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.95
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.95
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.95
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.95
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.95
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.95
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.95
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.95
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.95
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.95
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.95
10237	Ethylbenzene	100-41-4	5	U	5	1	0.95
10237	Freon 113	76-13-1	5	U	5	2	0.95
10237	Freon 133a	75-88-7	5	U	5	2	0.95
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.95
10237	2-Hexanone	591-78-6	11	U	11	3	0.95

*=This limit was used in the evaluation of the final result

Sample Description: SVL-518-SA5C-SB-5.5-6.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7484903
LL Group # 1478735
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:40 by RE

Submitted: 06/03/2014 09:20
Reported: 06/10/2014 18:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51855 SDG#: PH211-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.95
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.95
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.95
10237	Methyl Iodide	74-88-4	5	U	5	3	0.95
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.95
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	0.95
10237	Methylene Chloride	75-09-2	5	U	5	2	0.95
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.95
10237	Styrene	100-42-5	5	U	5	1	0.95
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.95
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.95
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.95
10237	Toluene	108-88-3	5	U	5	1	0.95
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.95
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.95
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.95
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.95
10237	Trichloroethene	79-01-6	5	U	5	1	0.95
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.95
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.95
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.95
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.95
10237	Vinyl Acetate	108-05-4	11	U	11	2	0.95
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.95
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.95
10237	o-Xylene	95-47-6	5	U	5	1	0.95
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	13.2		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141562AA	06/05/2014 21:30	Andrea E Lando	0.95
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201415434683	06/03/2014 11:30	Larry E Bevins	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-518-SA5C-SB-5.5-6.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7484903
LL Group # 1478735
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:40 by RE

Submitted: 06/03/2014 09:20
Reported: 06/10/2014 18:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51855 SDG#: PH211-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201415434683	06/03/2014 11:30	Larry E Bevins	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201415434683	06/03/2014 11:23	Larry E Bevins	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14157162401A	06/06/2014 20:26	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-576-SA5B-SB-4.0-4.3 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7484904
LL Group # 1478735
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 12:35 by RE

Submitted: 06/03/2014 09:20
Reported: 06/10/2014 18:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57640 SDG#: PH211-05*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	21	U	21	7	1.01
10237	Acrolein	107-02-8	110	U	110	21	1.01
10237	Acrylonitrile	107-13-1	21	U	21	4	1.01
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	1.01
10237	Benzene	71-43-2	5	U	5	0.5	1.01
10237	Bromobenzene	108-86-1	5	U	5	1	1.01
10237	Bromochloromethane	74-97-5	5	U	5	1	1.01
10237	Bromodichloromethane	75-27-4	5	U	5	1	1.01
10237	Bromoform	75-25-2	5	U	5	1	1.01
10237	Bromomethane	74-83-9	5	U	5	2	1.01
10237	2-Butanone	78-93-3	11	U	11	4	1.01
10237	t-Butyl alcohol	75-65-0	53	U	53	21	1.01
10237	n-Butylbenzene	104-51-8	5	U	5	1	1.01
10237	sec-Butylbenzene	135-98-8	5	U	5	1	1.01
10237	tert-Butylbenzene	98-06-6	5	U	5	1	1.01
10237	Carbon Disulfide	75-15-0	5	U	5	1	1.01
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	1.01
10237	Chlorobenzene	108-90-7	5	U	5	1	1.01
10237	Chloroethane	75-00-3	5	U	5	2	1.01
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	1.01
10237	Chloroform	67-66-3	5	U	5	1	1.01
10237	1-Chlorohexane	544-10-5	5	U	5	1	1.01
10237	Chloromethane	74-87-3	5	U	5	2	1.01
10237	2-Chlorotoluene	95-49-8	5	U	5	1	1.01
10237	4-Chlorotoluene	106-43-4	5	U	5	1	1.01
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	1.01
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1.01
10237	Dibromochloromethane	124-48-1	5	U	5	1	1.01
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	1.01
10237	Dibromomethane	74-95-3	5	U	5	1	1.01
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1.01
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1.01
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1.01
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	1.01
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	1.01
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	1.01
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	1.01
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	1.01
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	1.01
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	1.01
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	1.01
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	1.01
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	1.01
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	1.01
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	1.01
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	1.01
10237	Ethylbenzene	100-41-4	5	U	5	1	1.01
10237	Freon 113	76-13-1	5	U	5	2	1.01
10237	Freon 133a	75-88-7	5	U	5	2	1.01
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	1.01
10237	2-Hexanone	591-78-6	11	U	11	3	1.01

*=This limit was used in the evaluation of the final result

Sample Description: SVL-576-SA5B-SB-4.0-4.3 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7484904
LL Group # 1478735
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 12:35 by RE

Submitted: 06/03/2014 09:20
Reported: 06/10/2014 18:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57640 SDG#: PH211-05*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	1.01
10237	Isopropylbenzene	98-82-8	5	U	5	1	1.01
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	1.01
10237	Methyl Iodide	74-88-4	5	U	5	3	1.01
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1.01
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	1.01
10237	Methylene Chloride	75-09-2	5	U	5	2	1.01
10237	n-Propylbenzene	103-65-1	5	U	5	1	1.01
10237	Styrene	100-42-5	5	U	5	1	1.01
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	1.01
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	1.01
10237	Tetrachloroethene	127-18-4	5	U	5	1	1.01
10237	Toluene	108-88-3	5	U	5	1	1.01
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1.01
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1.01
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	1.01
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	1.01
10237	Trichloroethene	79-01-6	5	U	5	1	1.01
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	1.01
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1.01
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1.01
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1.01
10237	Vinyl Acetate	108-05-4	11	U	11	2	1.01
10237	Vinyl Chloride	75-01-4	5	U	5	1	1.01
10237	m+p-Xylene	179601-23-1	5	U	5	1	1.01
10237	o-Xylene	95-47-6	5	U	5	1	1.01
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	4.4		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141562AA	06/05/2014 21:53	Andrea E Lando	1.01
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201415434683	06/03/2014 11:30	Larry E Bevins	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-576-SA5B-SB-4.0-4.3 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7484904
LL Group # 1478735
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 12:35 by RE

Submitted: 06/03/2014 09:20
Reported: 06/10/2014 18:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57640 SDG#: PH211-05*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201415434683	06/03/2014 11:30	Larry E Bevins	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201415434683	06/03/2014 11:27	Larry E Bevins	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14157162401A	06/06/2014 20:26	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478735
Reported: 06/10/14 at 06:25 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B141562AA	Sample number(s): 7484900,7484902-7484904								
Acetone	20 U	20.	7	ug/kg	99	100	41-149	1	30
Acrolein	100 U	100.	20	ug/kg	81	94	50-137	15	30
Acrylonitrile	20 U	20.	4	ug/kg	96	91	58-123	6	30
t-Amyl methyl ether	5 U	5.	1	ug/kg	97	99	63-130	2	30
Benzene	5 U	5.	0.5	ug/kg	102	100	80-120	2	30
Bromobenzene	5 U	5.	1	ug/kg	104	105	78-120	2	30
Bromochloromethane	5 U	5.	1	ug/kg	105	106	75-129	1	30
Bromodichloromethane	5 U	5.	1	ug/kg	98	97	75-120	0	30
Bromoform	5 U	5.	1	ug/kg	101	102	70-126	1	30
Bromomethane	5 U	5.	2	ug/kg	100	94	32-162	5	30
2-Butanone	10 U	10.	4	ug/kg	92	93	47-136	1	30
t-Butyl alcohol	50 U	50.	20	ug/kg	100	107	66-133	6	30
n-Butylbenzene	5 U	5.	1	ug/kg	99	99	72-120	0	30
sec-Butylbenzene	5 U	5.	1	ug/kg	104	101	69-120	3	30
tert-Butylbenzene	5 U	5.	1	ug/kg	99	99	75-120	0	30
Carbon Disulfide	5 U	5.	1	ug/kg	104	96	63-128	8	30
Carbon Tetrachloride	5 U	5.	1	ug/kg	104	102	69-130	2	30
Chlorobenzene	5 U	5.	1	ug/kg	102	105	80-120	3	30
Chloroethane	5 U	5.	2	ug/kg	95	89	17-171	6	30
2-Chloroethyl Vinyl Ether	10 U	10.	2	ug/kg	83	85	52-134	3	30
Chloroform	5 U	5.	1	ug/kg	103	104	80-120	0	30
1-Chlorohexane	5 U	5.	1	ug/kg	93	92	70-130	1	30
Chloromethane	5 U	5.	2	ug/kg	93	90	56-120	3	30
2-Chlorotoluene	5 U	5.	1	ug/kg	103	104	78-120	0	30
4-Chlorotoluene	5 U	5.	1	ug/kg	101	105	79-120	3	30
Chlorotrifluoroethene	5 U	5.	2	ug/kg	81	79	22-131	2	30
1,2-Dibromo-3-chloropropane	5 U	5.	2	ug/kg	93	97	50-132	4	30
Dibromochloromethane	5 U	5.	1	ug/kg	103	106	77-120	3	30
1,2-Dibromoethane	5 U	5.	1	ug/kg	104	104	80-120	0	30
Dibromomethane	5 U	5.	1	ug/kg	99	100	75-120	0	30
1,2-Dichlorobenzene	5 U	5.	1	ug/kg	104	103	80-120	1	30
1,3-Dichlorobenzene	5 U	5.	1	ug/kg	105	104	80-120	1	30
1,4-Dichlorobenzene	5 U	5.	1	ug/kg	103	103	80-120	0	30
Dichlorodifluoromethane	5 U	5.	2	ug/kg	101	99	26-137	3	30
1,1-Dichloroethane	5 U	5.	1	ug/kg	99	98	71-122	1	30
1,2-Dichloroethane	5 U	5.	1	ug/kg	106	108	66-136	2	30
1,1-Dichloroethene	5 U	5.	1	ug/kg	111	102	73-129	8	30
cis-1,2-Dichloroethene	5 U	5.	1	ug/kg	104	104	80-120	0	30
trans-1,2-Dichloroethene	5 U	5.	1	ug/kg	111	103	79-120	8	30
1,2-Dichloropropane	5 U	5.	1	ug/kg	98	98	77-120	0	30
1,3-Dichloropropane	5 U	5.	1	ug/kg	101	101	73-120	0	30
2,2-Dichloropropane	5 U	5.	1	ug/kg	101	99	72-123	2	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478735
Reported: 06/10/14 at 06:25 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/kg	103	104	77-120	1	30
cis-1,3-Dichloropropene	5	U	5.	1	ug/kg	96	96	74-120	0	30
trans-1,3-Dichloropropene	5	U	5.	1	ug/kg	101	100	69-120	0	30
Ethyl t-butyl ether	5	U	5.	1	ug/kg	95	98	59-134	3	30
Ethylbenzene	5	U	5.	1	ug/kg	104	103	80-120	2	30
Freon 113	5	U	5.	2	ug/kg	102	95	64-137	7	30
Freon 133a	5	U	5.	2	ug/kg	96	99	78-120	3	30
Hexachlorobutadiene	5	U	5.	2	ug/kg	96	100	46-130	5	30
2-Hexanone	10	U	10.	3	ug/kg	90	91	40-129	1	30
di-Isopropyl ether	5	U	5.	1	ug/kg	98	99	68-128	1	30
Isopropylbenzene	5	U	5.	1	ug/kg	105	103	76-120	1	30
p-Isopropyltoluene	5	U	5.	1	ug/kg	98	101	69-120	3	30
Methyl Iodide	5	U	5.	3	ug/kg	110	105	72-130	5	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/kg	104	101	69-126	2	30
4-Methyl-2-pentanone	10	U	10.	3	ug/kg	92	93	43-133	1	30
Methylene Chloride	5	U	5.	2	ug/kg	115	103	80-124	11	30
n-Propylbenzene	5	U	5.	1	ug/kg	103	105	77-120	1	30
Styrene	5	U	5.	1	ug/kg	105	104	76-120	1	30
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/kg	105	106	80-120	0	30
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/kg	98	102	71-123	4	30
Tetrachloroethene	5	U	5.	1	ug/kg	117	119	78-120	2	30
Toluene	5	U	5.	1	ug/kg	104	104	80-120	0	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/kg	98	99	64-120	1	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/kg	99	99	68-120	0	30
1,1,1-Trichloroethane	5	U	5.	1	ug/kg	103	100	63-135	3	30
1,1,2-Trichloroethane	5	U	5.	1	ug/kg	101	104	80-120	3	30
Trichloroethene	5	U	5.	1	ug/kg	103	105	80-120	1	30
Trichlorofluoromethane	5	U	5.	2	ug/kg	96	93	58-133	3	30
1,2,3-Trichloropropane	5	U	5.	1	ug/kg	105	110	71-123	5	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/kg	104	105	79-120	1	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/kg	104	105	78-120	1	30
Vinyl Acetate	10	U	10.	2	ug/kg	113	116	40-127	2	30
Vinyl Chloride	5	U	5.	1	ug/kg	97	93	59-120	4	30
m+p-Xylene	5	U	5.	1	ug/kg	105	103	80-120	2	30
o-Xylene	5	U	5.	1	ug/kg	104	103	80-120	0	30
Batch number: Y141551AA	Sample number(s): 7484901									
Acetone	20	U	20.	6	ug/l	89	88	43-149	1	30
Acrolein	100 U		100.	40	ug/l	76	76	52-129	1	30
Acrylonitrile	20	U	20.	4	ug/l	94	94	62-120	0	30
t-Amyl methyl ether	1	U	1.	0.5	ug/l	91	93	75-120	2	30
Benzene	1	U	1.	0.5	ug/l	93	95	78-120	2	30
Bromobenzene	5	U	5.	1	ug/l	95	97	80-120	3	30
Bromochloromethane	5	U	5.	1	ug/l	95	96	80-121	1	30
Bromodichloromethane	1	U	1.	0.5	ug/l	93	94	73-120	1	30
Bromoform	4	U	4.	0.5	ug/l	89	87	61-120	2	30
Bromomethane	1	U	1.	0.5	ug/l	97	98	58-120	1	30
2-Butanone	10	U	10.	3	ug/l	86	88	54-133	2	30
t-Butyl alcohol	50	U	50.	5	ug/l	96	95	75-120	1	30
n-Butylbenzene	5	U	5.	1	ug/l	88	90	68-120	3	30
sec-Butylbenzene	5	U	5.	1	ug/l	91	93	80-120	2	30
tert-Butylbenzene	5	U	5.	1	ug/l	91	93	73-120	2	30
Carbon Disulfide	5	U	5.	1	ug/l	89	89	58-126	0	30
Carbon Tetrachloride	1	U	1.	0.5	ug/l	101	104	74-130	2	30
Chlorobenzene	1	U	1.	0.5	ug/l	95	96	80-120	2	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478735
Reported: 06/10/14 at 06:25 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroethane	1	U	1.	0.5	ug/l	90	93	56-120	3	30
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/l	101	103	54-126	2	30
Chloroform	1	U	1.	0.5	ug/l	98	100	80-122	3	30
1-Chlorohexane	5	U	5.	1	ug/l	96	99	80-120	3	30
Chloromethane	1	U	1.	0.5	ug/l	103	106	63-120	3	30
2-Chlorotoluene	5	U	5.	1	ug/l	90	93	80-120	3	30
4-Chlorotoluene	5	U	5.	1	ug/l	89	93	80-120	5	30
Chlorotrifluoroethene	5	U	5.	2	ug/l	71	69	47-120	3	30
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/l	85	85	56-120	0	30
Dibromochloromethane	1	U	1.	0.5	ug/l	95	94	72-120	1	30
1,2-Dibromoethane	1	U	1.	0.5	ug/l	97	97	76-120	0	30
Dibromomethane	1	U	1.	0.5	ug/l	93	93	80-120	0	30
1,2-Dichlorobenzene	5	U	5.	1	ug/l	92	95	80-120	3	30
1,3-Dichlorobenzene	5	U	5.	1	ug/l	92	95	80-120	3	30
1,4-Dichlorobenzene	5	U	5.	1	ug/l	94	95	80-120	1	30
Dichlorodifluoromethane	1	U	1.	0.5	ug/l	94	96	48-132	3	30
1,1-Dichloroethane	1	U	1.	0.5	ug/l	92	94	80-120	3	30
1,2-Dichloroethane	1	U	1.	0.5	ug/l	98	99	65-135	1	30
1,1-Dichloroethene	1	U	1.	0.5	ug/l	108	109	76-124	1	30
cis-1,2-Dichloroethene	1	U	1.	0.5	ug/l	96	98	80-120	2	30
trans-1,2-Dichloroethene	1	U	1.	0.5	ug/l	108	113	80-120	4	30
1,2-Dichloropropane	1	U	1.	0.5	ug/l	87	91	80-120	4	30
1,3-Dichloropropane	1	U	1.	0.5	ug/l	90	90	80-120	1	30
2,2-Dichloropropane	1	U	1.	0.5	ug/l	99	99	67-124	1	30
1,1-Dichloropropene	5	U	5.	1	ug/l	98	102	80-120	3	30
cis-1,3-Dichloropropene	1	U	1.	0.5	ug/l	90	91	80-120	2	30
trans-1,3-Dichloropropene	1	U	1.	0.5	ug/l	91	91	76-120	0	30
Ethyl t-butyl ether	1	U	1.	0.5	ug/l	91	93	74-120	2	30
Ethylbenzene	1	U	1.	0.5	ug/l	93	94	79-120	1	30
Freon 113	10	U	10.	2	ug/l	98	97	67-127	1	30
Freon 133a	5	U	5.	2	ug/l	104	101	46-152	3	30
Hexachlorobutadiene	5	U	5.	2	ug/l	89	92	51-125	3	30
2-Hexanone	10	U	10.	3	ug/l	84	86	44-126	2	30
di-Isopropyl ether	1	U	1.	0.5	ug/l	89	92	65-120	3	30
Isopropylbenzene	5	U	5.	1	ug/l	95	95	77-120	0	30
p-Isopropyltoluene	5	U	5.	1	ug/l	89	92	80-120	3	30
Methyl Iodide	1	U	1.	0.5	ug/l	107	108	75-128	0	30
Methyl Tertiary Butyl Ether	1	U	1.	0.5	ug/l	104	105	75-120	1	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	86	88	51-124	3	30
Methylene Chloride	3	U	3.	2	ug/l	106	107	80-120	0	30
n-Propylbenzene	5	U	5.	1	ug/l	90	92	80-120	3	30
Styrene	5	U	5.	1	ug/l	94	95	80-120	2	30
1,1,1,2-Tetrachloroethane	1	U	1.	0.5	ug/l	96	97	80-120	1	30
1,1,2,2-Tetrachloroethane	1	U	1.	0.5	ug/l	86	87	70-120	2	30
Tetrachloroethene	1	U	1.	0.5	ug/l	100	101	80-120	1	30
Toluene	1	U	1.	0.5	ug/l	94	95	80-120	1	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	91	91	58-126	0	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	93	93	65-120	0	30
1,1,1-Trichloroethane	1	U	1.	0.5	ug/l	91	94	66-126	3	30
1,1,2-Trichloroethane	1	U	1.	0.5	ug/l	92	92	80-120	1	30
Trichloroethene	1	U	1.	0.5	ug/l	98	99	80-120	1	30
Trichlorofluoromethane	1	U	1.	0.5	ug/l	102	102	65-130	0	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	91	94	76-120	3	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	93	95	74-120	2	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	93	95	74-120	3	30
Vinyl Acetate	10	U	10.	2	ug/l	74	73	56-135	2	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478735
Reported: 06/10/14 at 06:25 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vinyl Chloride	1	U	1.	0.5	ug/l	97	98	63-120	1	30
m+p-Xylene	1	U	1.	0.5	ug/l	93	95	80-120	2	30
o-Xylene	1	U	1.	0.5	ug/l	93	94	80-120	2	30
Batch number: 14157162401A	Sample number(s): 7484900,7484902-7484904									
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14157162401A	Sample number(s): 7484900,7484902-7484904					BKG: 7484903			
14a Moisture Content by 160.3						13.2	12.4	6	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12a Volatile Organics EPA8260B
Batch number: B141562AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7484900	101	99	100	92
7484902	102	100	100	95
7484903	102	94	99	93
7484904	102	98	102	92
Blank	102	104	100	95
LCS	102	104	104	100
LCSD	101	100	103	101
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141551AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7484901	102	100	96	94
Blank	101	100	96	95
LCS	101	98	98	99
LCSD	100	101	97	98
Limits:	86-118	80-120	88-110	86-115

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/2/2014
CarrierName: FedEx
AirbillNo: 770169300503

A-13013
G-1478735
S-7484900-04

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140602-04
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
SVL-563-SA5C-SB-1.0-1.5	6/2/14 08:40	SO	None	3 - Encore	10 day																		X																		
SVL-563-SA5C-SB-1.0-1.5	6/2/14 08:40	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture
TB3-060214	6/2/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																		X																		
SVL-518-SA5C-SB-11.0-11.5	6/2/14 10:45	SO	None	3 - Encore	10 day																		X																		
SVL-518-SA5C-SB-11.0-11.5	6/2/14 10:45	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture
SVL-518-SA5C-SB-5.5-6.0	6/2/14 10:40	SO	None	3 - Encore	10 day																		X																		
SVL-518-SA5C-SB-5.5-6.0	6/2/14 10:40	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture
SVL-576-SA5B-SB-4.0-4.3	6/2/14 12:35	SO	None	3 - Encore	10 day																		X																		
SVL-576-SA5B-SB-4.0-4.3	6/2/14 12:35	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture

Special Instructions:

Sampler: Nathaniel Robello

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Stephanie Mysel	6/2/14	1600									
										6/3/14	0920

Soil Vapor Sampling 1 of 1

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 16210

Group Number(s): 1478735

Client: CDM SMITH

SSFL PHASE 3

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	06/03/2014 9:20
Number of Packages:	3	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Corey Eshleman (3647) at 10:15 on 06/03/2014

Samples Chilled Details: SSFL PHASE 3

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT121	1.1	DT	Wet	Y	Bagged	N	N
2	DT121	2.0	DT	Wet	Y	Bagged	N	N
3	DT121	1.4	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

July 07, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 06/03/2014
Group Number: 1478782
SDG: PH212
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SL-653-SA5C-TR-0.5 Soil	7485078
SL-653-SA5C-TR-5.0 Soil	7485079
SL-653-SA5C-TR-10.0 Soil	7485080
SL-653-SA5C-TR-15.0 Soil	7485081
TB4-060214 Water	7485082

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: SL-653-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485078
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:20 by AP

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR05- SDG#: PH212-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270D			ug/kg		ug/kg	ug/kg	ug/kg	
10726	Aniline	62-53-3	510	U	510	170		1
10726	Benzidine	92-87-5	3,400	U	3,400	710		1
10726	Benzo(a)pyrene	50-32-8	4	J	17	3		1
10726	Benzo(b)fluoranthene	205-99-2	5	J	17	3		1
10726	Benzoic acid	65-85-0	510	U	510	170		1
10726	Benzyl alcohol	100-51-6	510	U	510	170		1
10726	1,1'-Biphenyl	92-52-4	34	U	34	17		1
10726	4-Bromophenyl-phenylether	101-55-3	34	U	34	17		1
10726	Carbazole	86-74-8	34	U	34	17		1
10726	4-Chloro-3-methylphenol	59-50-7	34	U	34	17		1
10726	4-Chloroaniline	106-47-8	34	U	34	17		1
10726	bis(2-Chloroethoxy)methane	111-91-1	34	U	34	17		1
10726	bis(2-Chloroethyl)ether	111-44-4	34	U	34	17		1
10726	bis(2-Chloroisopropyl)ether	39638-32-9	34	U	34	17		1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.							
10726	2-Chloronaphthalene	91-58-7	34	U	34	7		1
10726	2-Chlorophenol	95-57-8	34	U	34	17		1
10726	4-Chlorophenyl-phenylether	7005-72-3	34	U	34	17		1
10726	Dibenzofuran	132-64-9	34	U	34	17		1
10726	1,2-Dichlorobenzene	95-50-1	34	U	34	17		1
10726	1,3-Dichlorobenzene	541-73-1	34	U	34	17		1
10726	1,4-Dichlorobenzene	106-46-7	34	U	34	17		1
10726	3,3'-Dichlorobenzidine	91-94-1	340	U	340	100		1
10726	2,4-Dichlorophenol	120-83-2	34	U	34	17		1
10726	2,6-Dichlorophenol	87-65-0	34	U	34	17		1
10726	2,4-Dimethylphenol	105-67-9	34	U	34	17		1
10726	3,5-Dimethylphenol	108-68-9	170	U	170	34		1
10726	4,6-Dinitro-2-methylphenol	534-52-1	510	U	510	170		1
10726	2,4-Dinitrophenol	51-28-5	1,000	U	1,000	310		1
10726	1,2-Diphenylhydrazine	122-66-7	34	U	34	17		1
10726	Hexachlorobenzene	118-74-1	17	U	17	3		1
10726	Hexachlorobutadiene	87-68-3	34	U	34	17		1
10726	Hexachlorocyclopentadiene	77-47-4	510	U	510	170		1
10726	Hexachloroethane	67-72-1	170	U	170	34		1
10726	Isophorone	78-59-1	34	U	34	17		1
10726	2-Methylphenol	95-48-7	34	U	34	17		1
10726	4-Methylphenol	106-44-5	34	U	34	17		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
10726	NDPA as diphenylamine	n.a.	170	U	170	34		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10726	2-Nitroaniline	88-74-4	34	U	34	17		1
10726	3-Nitroaniline	99-09-2	170	U	170	68		1
10726	4-Nitroaniline	100-01-6	170	U	170	68		1
10726	Nitrobenzene	98-95-3	34	U	34	17		1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-653-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485078
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:20 by AP

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR05- SDG#: PH212-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		ug/kg		ug/kg	ug/kg	ug/kg	
10726	2-Nitrophenol	88-75-5	34	U	34	17		1
10726	4-Nitrophenol	100-02-7	510	U	510	170		1
10726	N-Nitroso-di-n-propylamine	621-64-7	34	U	34	17		1
10726	N-Nitrosodiphenylamine	86-30-6	34	U	34	17		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10726	Pentachlorophenol	87-86-5	170	U	170	34		1
10726	Phenol	108-95-2	34	U	34	17		1
10726	Pyridine	110-86-1	170	U	170	68		1
10726	1,2,4-Trichlorobenzene	120-82-1	34	U	34	17		1
10726	2,4,5-Trichlorophenol	95-95-4	34	U	34	17		1
10726	2,4,6-Trichlorophenol	88-06-2	34	U	34	17		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: 4,6-dinitro-2-methylphenol 4-nitroaniline							
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/kg		ug/kg	ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68		1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34		1
12969	Anthracene	120-12-7	0.71	J	1.7	0.34		1
12969	Benzo(a)anthracene	56-55-3	1.5	J	1.7	0.68		1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4		1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.68		1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.68		1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1		1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1		1
12969	Chrysene	218-01-9	1.3	J	1.7	0.34		1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68		1
12969	Diethylphthalate	84-66-2	18	U	18	6.1		1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.1		1
12969	Fluoranthene	206-44-0	3.5		1.7	0.68		1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.74	J	1.7	0.68		1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68		1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.68		1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.68		1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68		1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1		1
12969	Phenanthrene	85-01-8	2.8		1.7	0.68		1
12969	Pyrene	129-00-0	2.4		1.7	0.68		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: benzo(e)pyrene							

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-653-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485078
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:20 by AP

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR05- SDG#: PH212-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
	The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.							
Explosives	**SW-846 8330**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	310	U	310	150	10000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	310	U	310	100	10000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	410	U	410	200	10000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	410	U	410	200	10000000	1
10132	1,3-Dinitrobenzene	99-65-0	310	U	310	100	10000000	1
10132	2,4-Dinitrotoluene	121-14-2	310	U	310	100	10000000	1
10132	2,6-Dinitrotoluene	606-20-2	310	U	310	100	10000000	1
10132	HMX	2691-41-0	410	U	410	200	10000000	1
10132	Nitrobenzene	98-95-3	310	U	310	100	10000000	1
10132	Nitroglycerin	55-63-0	2,000	U	2,000	1,000	10000000	1
10132	2-Nitrotoluene	88-72-2	310	U	310	200	10000000	1
10132	3-Nitrotoluene	99-08-1	310	U	310	260	10000000	1
10132	4-Nitrotoluene	99-99-0	310	U	310	200	10000000	1
10132	PETN	78-11-5	2,000	U	2,000	1,000	10000000	1
10132	RDX	121-82-4	310	U	310	130	10000000	1
10132	Tetryl	479-45-8	310	U	310	160	10000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	310	U	310	100	10000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	310	U	310	100	10000000	1
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	37	U	37	12		1
10401	Dalapon	75-99-0	92	U	92	45		1
10401	2,4-DB	94-82-6	19		17	6.3		1
10401	Dicamba	1918-00-9	12	U	12	4.1		1
10401	Dinoseb	88-85-7	24	U	24	9.2		1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.							
10401	2,4-DP (Dichlorprop)	120-36-5	17	U	17	9.2		1
10401	MCPA	94-74-6	2,600	U	2,600	780		1
10401	MCPP (Mecoprop)	93-65-2	2,600	U	2,600	770		1
10401	2,4,5-T	93-76-5	1.7	U	1.7	0.84		1

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Sample Description: SL-653-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485078
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:20 by AP

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR05- SDG#: PH212-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10401	2,4,5-TP	93-72-1	1.7	U	1.7	0.77		1
Perchlorate	**SW-846 6850 1/2007**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.1	U	5.1	2.1		1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.85	U	0.85	0.17		1
10590	Alpha BHC	319-84-6	0.85	U	0.85	0.17		1
10590	Beta BHC	319-85-7	1.9	U	1.9	0.98		1
10590	Gamma BHC - Lindane	58-89-9	0.85	U	0.85	0.17		1
10590	Chlordane	57-74-9	17	U	17	4.1		1
10590	p,p-DDD	72-54-8	1.7	U	1.7	0.34		1
10590	p,p-DDE	72-55-9	1.7	U	1.7	0.34		1
10590	p,p-DDT	50-29-3	1.7	U	1.7	0.36		1
10590	Delta BHC	319-86-8	0.85	U	0.85	0.46		1
10590	Dieldrin	60-57-1	1.7	U	1.7	0.34		1
10590	Endosulfan I	959-98-8	0.85	U	0.85	0.22		1
10590	Endosulfan II	33213-65-9	1.7	U	1.7	0.34		1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.34		1
10590	Endrin	72-20-8	1.7	U	1.7	0.34		1
10590	Endrin Aldehyde	7421-93-4	1.7	U	1.7	0.34		1
10590	Endrin Ketone	53494-70-5	1.8	U	1.8	0.61		1
10590	Heptachlor	76-44-8	0.85	U	0.85	0.17		1
10590	Heptachlor Epoxide	1024-57-3	0.85	U	0.85	0.17		1
10590	Methoxychlor	72-43-5	6.8	U	6.8	1.7		1
10590	Mirex	2385-85-5	1.7	U	1.7	0.36		1
10590	Toxaphene	8001-35-2	34	U	34	14		1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10		1
13099	Aroclor 5442	12642-23-8	33	U	33	10		1
13099	Aroclor 5460	11126-42-4	33	U	33	10		1
13099	PCB-1016	12674-11-2	17	U	17	3.3		1
13099	PCB-1221	11104-28-2	17	U	17	5.1		1
13099	PCB-1232	11141-16-5	17	U	17	4.1		1
13099	PCB-1242	53469-21-9	17	U	17	4.1		1
13099	PCB-1248	12672-29-6	17	U	17	3.3		1
13099	PCB-1254	11097-69-1	17	U	17	4.4		1
13099	PCB-1260	11096-82-5	17	U	17	3.9		1
13099	PCB-1262	37324-23-5	17	U	17	3.3		1
13099	PCB-1268	11100-14-4	17	U	17	3.3		1
	For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.							
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12934	Diethylene glycol	111-46-6	10	U	10	5.1		1
12934	Ethylene glycol	107-21-1	10	U	10	5.1		1
12934	Propylene glycol	57-55-6	10	U	10	5.1		1

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Sample Description: SL-653-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485078
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:20 by AP

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR05- SDG#: PH212-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12934	Triethylene glycol	112-27-6	10	U	10	5.1		1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	0.17	U	0.17	0.068		1
10318	o-Terphenyl	84-15-1	0.17	U	0.17	0.068		1
10318	p-Terphenyl	92-94-4	0.17	U	0.17	0.068		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0		1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0		1
12952	EFH (C21-C30)	n.a.	5.1	U	5.1	2.0		1
12952	EFH (C30-C40)	n.a.	10	U	10	4.1		1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0		1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.0		1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.0		1
13197	EFH C21-C30 w/ SiGel	n.a.	5.1	U	5.1	2.0		1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.1		1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.0		1
	The reverse surrogate, capric acid, is present at <1%.							
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,600		40.4	7.28		1
06944	Antimony	7440-36-0	4.04	U	4.04	0.748		1
06935	Arsenic	7440-38-2	3.24	J	4.04	0.707		1
06946	Barium	7440-39-3	84.2		1.01	0.0333		1
06947	Beryllium	7440-41-7	0.568	J	1.01	0.0677		1
07914	Boron	7440-42-8	6.14	J	10.1	0.849		1
06949	Cadmium	7440-43-9	0.191	J	1.01	0.0768		1
01650	Calcium	7440-70-2	2,760		20.2	3.37		1
06951	Chromium	7440-47-3	17.0		3.03	0.162		1
06952	Cobalt	7440-48-4	4.93		1.01	0.100		1
06953	Copper	7440-50-8	7.61		2.02	0.293		1
01654	Iron	7439-89-6	20,400		40.4	3.66		1
06955	Lead	7439-92-1	4.91		3.03	0.505		1
01656	Lithium	7439-93-2	24.3		4.0	0.34		1
01657	Magnesium	7439-95-4	4,940		10.1	1.69		1
06958	Manganese	7439-96-5	274		1.01	0.0839		1
06960	Molybdenum	7439-98-7	0.223	J	2.02	0.172		1
06961	Nickel	7440-02-0	9.96		2.02	0.131		1
10145	Phosphorus	7723-14-0	463		10.1	2.92		1
01662	Potassium	7440-09-7	3,400		101	8.43		1
01667	Sodium	7440-23-5	67.8	J	101	16.9		1
06969	Tin	7440-31-5	2.67	J	10.1	0.222		1
06970	Titanium	7440-32-6	1,150		1.01	0.172		1

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Sample Description: SL-653-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485078
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:20 by AP

Submitted: 06/03/2014 09:20
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR05- SDG#: PH212-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06971	Vanadium	7440-62-2	34.2		1.01	0.131		1
06972	Zinc	7440-66-6	58.0		4.04	0.202		1
10146	Zirconium	7440-67-7	2.61	J	5.05	0.849		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.305	J	0.404	0.101		2
06142	Silver	7440-22-4	0.202	U	0.202	0.0263		2
06144	Strontium	7440-24-6	15.8		0.404	0.0687		2
06145	Thallium	7440-28-0	0.277		0.202	0.0303		2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0160	U	0.0160	0.0096		1
Wet Chemistry	**SW-846 7199**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05892	2a Chromium VI by EPA 7199	18540-29-9	0.38	J	0.42	0.15		1
	SW-846 9045D modified		**Std. Units**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 22.5 C.	n.a.	6.79		0.0100	0.0100		1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	2.0		0.10	0.10		1

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SSFL Phase 3 Subarea 5C

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Fairfax VA 22030

TR05- SDG#: PH212-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.974	U	0.974	0.144		1
11031	12378-PeCDD	40321-76-4	4.87	U	4.87	0.0922		1
11031	123478-HxCDD	39227-28-6	0.0493	JBQ	4.87	0.0443		1
11031	123678-HxCDD	57653-85-7	0.0720	JBQ	4.87	0.0453		1
11031	123789-HxCDD	19408-74-3	0.0806	JQ	4.87	0.0467		1
11031	1234678-HpCDD	35822-46-9	1.12	JB	4.87	0.0527		1
11031	OCDD	3268-87-9	10.2	B	9.74	0.0370		1
11031	2378-TCDF	51207-31-9	0.0958	JQ	0.974	0.0919		1
11031	12378-PeCDF	57117-41-6	0.0676	JBQ	4.87	0.0318		1
11031	23478-PeCDF	57117-31-4	4.87	U	4.87	0.0339		1
11031	123478-HxCDF	70648-26-9	0.0803	JBQ	4.87	0.0406		1
11031	123678-HxCDF	57117-44-9	0.0430	JQ	4.87	0.0360		1
11031	123789-HxCDF	72918-21-9	4.87	U	4.87	0.0390		1
11031	234678-HxCDF	60851-34-5	0.0708	JQ	4.87	0.0356		1
11031	1234678-HpCDF	67562-39-4	0.260	JB	4.87	0.0173		1
11031	1234789-HpCDF	55673-89-7	0.0620	JBQ	4.87	0.0273		1
11031	OCDF	39001-02-0	0.399	JBQ	9.74	0.0616		1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0168					1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	69	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	89	32 - 141
13C12-123678-HxCDD	89	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	93	23 - 140
13C12-OCDD	102	17 - 157
13C12-2378-TCDF	72	24 - 169
13C12-12378-PeCDF	93	24 - 185
13C12-23478-PeCDF	81	21 - 178
13C12-123478-HxCDF	82	26 - 152
13C12-123678-HxCDF	89	26 - 123
13C12-234678-HxCDF	87	28 - 136
13C12-123789-HxCDF	89	29 - 147
13C12-1234678-HpCDF	110	28 - 143
13C12-1234789-HpCDF	80	26 - 138
13C12-OCDF	82	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

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SSFL Phase 3 Subarea 5C

LL Sample # SW 7485078
LL Group # 1478782
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Project Name: SSFL Phase 3 Sampling

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TR05- SDG#: PH212-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Action Limit	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

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TR05- SDG#: PH212-01

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	8a SVOCs by EPA 8270D	SW-846 8270D	1	14154SLH026	06/13/2014 08:38	Brian K Graham	1
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14154SLI026	06/10/2014 08:24	Mark A Clark	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	14154SLH026	06/04/2014 09:30	David S Schrum	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14154SLI026	06/04/2014 09:30	David S Schrum	1
10132	24a Energetics by 8330A	SW-846 8330	1	141550001A	06/06/2014 23:47	James H Place	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	141560024A	06/07/2014 01:17	Lisa A Reinert	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141550002A	06/05/2014 20:25	Richard A Shober	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141580004A	06/10/2014 17:43	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141540027A	06/10/2014 04:15	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141540027A	06/04/2014 07:40	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141580004A	06/08/2014 08:50	Katheryne V Sponheimer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	141560024A	06/06/2014 10:00	William H Saadeh	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141550002A	06/05/2014 06:15	Maria Davenport	1
11137	Energetics Extraction	SW-846 8330	1	141550001A	06/04/2014 13:15	Wanda F Oswald	1
12934	26a Glycols by EPA 8015C	SW-846 8015C Feb 2007 Rev 3	1	141550013A	06/06/2014 22:15	Tyler O Griffin	1
10318	27a Terphenyls by 8015B	SW-846 8015B	1	141560017A	06/06/2014 17:18	Glorines Suarez-Rivera	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540029A	06/04/2014 20:41	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540030A	06/06/2014 01:28	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540030A	06/04/2014 09:30	David S Schrum	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540029A	06/04/2014 09:30	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	141560017A	06/05/2014 17:00	JoElla L Rice	1
12933	Glycols Sonication Extraction	SW-846 3550C	1	141550013A	06/04/2014 20:00	David V Hershey Jr	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14161001	06/11/2014 20:58	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14161001	06/10/2014 09:30	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1

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SSFL Phase 3 Subarea 5C

LL Sample # SW 7485078
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Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:20 by AP

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR05- SDG#: PH212-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06944	Antimony	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	141610637001	06/12/2014 05:04	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	141610637001B	06/12/2014 07:49	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141610637001A	06/12/2014 07:49	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141610637001A	06/12/2014 07:49	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141610637001A	06/12/2014 07:49	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141610638001	06/12/2014 08:43	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141610637001	06/11/2014 08:51	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141610638001	06/11/2014 12:00	James L Mertz	1
05892	2a Chromium VI by EPA 7199	SW-846 7199	2	14155243201A	06/05/2014 19:31	Clinton M Wilson	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14154039403A	06/03/2014 21:10	Luz M Groff	1
02432	Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	14155243201A	06/04/2014 21:20	Daniel S Smith	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14157162401B	06/06/2014 20:26	Scott W Freisher	1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-653-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485079
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:45 by AP

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR50- SDG#: PH212-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		ug/kg		ug/kg	ug/kg	ug/kg	
10726	Aniline	62-53-3	510	U	510	170		1
10726	Benzidine	92-87-5	3,400	U	3,400	720		1
10726	Benzoic acid	65-85-0	510	U	510	170		1
10726	Benzyl alcohol	100-51-6	510	U	510	170		1
10726	1,1'-Biphenyl	92-52-4	34	U	34	17		1
10726	4-Bromophenyl-phenylether	101-55-3	34	U	34	17		1
10726	Carbazole	86-74-8	34	U	34	17		1
10726	4-Chloro-3-methylphenol	59-50-7	34	U	34	17		1
10726	4-Chloroaniline	106-47-8	34	U	34	17		1
10726	bis(2-Chloroethoxy)methane	111-91-1	34	U	34	17		1
10726	bis(2-Chloroethyl)ether	111-44-4	34	U	34	17		1
10726	bis(2-Chloroisopropyl)ether	39638-32-9	34	U	34	17		1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.							
10726	2-Chloronaphthalene	91-58-7	34	U	34	7		1
10726	2-Chlorophenol	95-57-8	34	U	34	17		1
10726	4-Chlorophenyl-phenylether	7005-72-3	34	U	34	17		1
10726	Dibenzofuran	132-64-9	34	U	34	17		1
10726	1,2-Dichlorobenzene	95-50-1	34	U	34	17		1
10726	1,3-Dichlorobenzene	541-73-1	34	U	34	17		1
10726	1,4-Dichlorobenzene	106-46-7	34	U	34	17		1
10726	3,3'-Dichlorobenzidine	91-94-1	340	U	340	100		1
10726	2,4-Dichlorophenol	120-83-2	34	U	34	17		1
10726	2,6-Dichlorophenol	87-65-0	34	U	34	17		1
10726	2,4-Dimethylphenol	105-67-9	34	U	34	17		1
10726	3,5-Dimethylphenol	108-68-9	170	U	170	34		1
10726	4,6-Dinitro-2-methylphenol	534-52-1	510	U	510	170		1
10726	2,4-Dinitrophenol	51-28-5	1,000	U	1,000	310		1
10726	1,2-Diphenylhydrazine	122-66-7	34	U	34	17		1
10726	Hexachlorobenzene	118-74-1	17	U	17	3		1
10726	Hexachlorobutadiene	87-68-3	34	U	34	17		1
10726	Hexachlorocyclopentadiene	77-47-4	510	U	510	170		1
10726	Hexachloroethane	67-72-1	170	U	170	34		1
10726	Isophorone	78-59-1	34	U	34	17		1
10726	2-Methylphenol	95-48-7	34	U	34	17		1
10726	4-Methylphenol	106-44-5	34	U	34	17		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
10726	NDPA as diphenylamine	n.a.	170	U	170	34		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10726	2-Nitroaniline	88-74-4	34	U	34	17		1
10726	3-Nitroaniline	99-09-2	170	U	170	69		1
10726	4-Nitroaniline	100-01-6	170	U	170	69		1
10726	Nitrobenzene	98-95-3	34	U	34	17		1
10726	2-Nitrophenol	88-75-5	34	U	34	17		1
10726	4-Nitrophenol	100-02-7	510	U	510	170		1

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Sample Description: SL-653-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485079
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:45 by AP

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR50- SDG#: PH212-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10726	N-Nitroso-di-n-propylamine	621-64-7	34	U	34	17		1
10726	N-Nitrosodiphenylamine	86-30-6	34	U	34	17		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10726	Pentachlorophenol	87-86-5	170	U	170	34		1
10726	Phenol	108-95-2	34	U	34	17		1
10726	Pyridine	110-86-1	170	U	170	69		1
10726	1,2,4-Trichlorobenzene	120-82-1	34	U	34	17		1
10726	2,4,5-Trichlorophenol	95-95-4	34	U	34	17		1
10726	2,4,6-Trichlorophenol	88-06-2	34	U	34	17		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: 4,6-dinitro-2-methylphenol 4-nitroaniline							
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69		1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34		1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34		1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69		1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69		1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69		1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4		1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69		1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69		1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2		1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2		1
12969	Chrysene	218-01-9	1.7	U	1.7	0.34		1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69		1
12969	Diethylphthalate	84-66-2	19	U	19	6.2		1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.2		1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.69		1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69		1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69		1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69		1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.69		1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69		1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2		1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69		1
12969	Pyrene	129-00-0	1.7	U	1.7	0.69		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: benzo(e)pyrene							

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Sample Description: SL-653-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485079
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:45 by AP

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR50- SDG#: PH212-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2		25.2
Explosives	**SW-846 8330**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	310	U	310	150	10000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	310	U	310	100	10000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	410	U	410	210	10000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	410	U	410	210	10000000	1
10132	1,3-Dinitrobenzene	99-65-0	310	U	310	100	10000000	1
10132	2,4-Dinitrotoluene	121-14-2	310	U	310	100	10000000	1
10132	2,6-Dinitrotoluene	606-20-2	310	U	310	100	10000000	1
10132	HMX	2691-41-0	410	U	410	210	10000000	1
10132	Nitrobenzene	98-95-3	310	U	310	100	10000000	1
10132	Nitroglycerin	55-63-0	2,100	U	2,100	1,000	10000000	1
10132	2-Nitrotoluene	88-72-2	310	U	310	210	10000000	1
10132	3-Nitrotoluene	99-08-1	310	U	310	260	10000000	1
10132	4-Nitrotoluene	99-99-0	310	U	310	210	10000000	1
10132	PETN	78-11-5	2,100	U	2,100	1,000	10000000	1
10132	RDX	121-82-4	310	U	310	130	10000000	1
10132	Tetryl	479-45-8	310	U	310	160	10000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	310	U	310	100	10000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	310	U	310	100	10000000	1
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	37	U	37	12		1
10401	Dalapon	75-99-0	92	U	92	45		1
10401	2,4-DB	94-82-6	17	U	17	6.4		1
10401	Dicamba	1918-00-9	12	U	12	4.1		1
10401	Dinoseb	88-85-7	25	U	25	9.2		1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.							
10401	2,4-DP (Dichlorprop)	120-36-5	17	U	17	9.2		1

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Sample Description: SL-653-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485079
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:45 by AP

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TR50- SDG#: PH212-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10401	MCPA	94-74-6	2,600	U	2,600	780		1
10401	MCPP (Mecoprop)	93-65-2	2,600	U	2,600	770		1
10401	2,4,5-T	93-76-5	1.7	U	1.7	0.84		1
10401	2,4,5-TP	93-72-1	1.7	U	1.7	0.77		1
Perchlorate	**SW-846 6850 1/2007**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.1	U	5.1	2.2		1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.85	U	0.85	0.17		1
10590	Alpha BHC	319-84-6	0.85	U	0.85	0.17		1
10590	Beta BHC	319-85-7	1.9	U	1.9	0.98		1
10590	Gamma BHC - Lindane	58-89-9	0.85	U	0.85	0.17		1
10590	Chlordane	57-74-9	17	U	17	4.1		1
10590	p,p-DDD	72-54-8	1.7	U	1.7	0.34		1
10590	p,p-DDE	72-55-9	1.7	U	1.7	0.34		1
10590	p,p-DDT	50-29-3	1.7	U	1.7	0.36		1
10590	Delta BHC	319-86-8	0.85	U	0.85	0.46		1
10590	Dieldrin	60-57-1	1.7	U	1.7	0.34		1
10590	Endosulfan I	959-98-8	0.85	U	0.85	0.22		1
10590	Endosulfan II	33213-65-9	1.7	U	1.7	0.34		1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.34		1
10590	Endrin	72-20-8	1.7	U	1.7	0.34		1
10590	Endrin Aldehyde	7421-93-4	1.7	U	1.7	0.34		1
10590	Endrin Ketone	53494-70-5	1.8	U	1.8	0.61		1
10590	Heptachlor	76-44-8	0.85	U	0.85	0.17		1
10590	Heptachlor Epoxide	1024-57-3	0.85	U	0.85	0.17		1
10590	Methoxychlor	72-43-5	6.8	U	6.8	1.7		1
10590	Mirex	2385-85-5	1.7	U	1.7	0.36		1
10590	Toxaphene	8001-35-2	34	U	34	14		1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10		1
13099	Aroclor 5442	12642-23-8	33	U	33	10		1
13099	Aroclor 5460	11126-42-4	33	U	33	10		1
13099	PCB-1016	12674-11-2	17	U	17	3.3		1
13099	PCB-1221	11104-28-2	17	U	17	5.2		1
13099	PCB-1232	11141-16-5	17	U	17	4.1		1
13099	PCB-1242	53469-21-9	17	U	17	4.1		1
13099	PCB-1248	12672-29-6	17	U	17	3.3		1
13099	PCB-1254	11097-69-1	17	U	17	4.4		1
13099	PCB-1260	11096-82-5	17	U	17	3.9		1
13099	PCB-1262	37324-23-5	17	U	17	3.3		1
13099	PCB-1268	11100-14-4	17	U	17	3.3		1
	For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.							
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	

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Sample Description: SL-653-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485079
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:45 by AP

Submitted: 06/03/2014 09:20
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TR50- SDG#: PH212-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12934	Diethylene glycol	111-46-6	10	U	10	5.1		1
12934	Ethylene glycol	107-21-1	10	U	10	5.1		1
12934	Propylene glycol	57-55-6	10	U	10	5.1		1
12934	Triethylene glycol	112-27-6	10	U	10	5.1		1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	0.17	U	0.17	0.069		1
10318	o-Terphenyl	84-15-1	0.17	U	0.17	0.069		1
10318	p-Terphenyl	92-94-4	0.17	U	0.17	0.069		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1		1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.1		1
12952	EFH (C21-C30)	n.a.	5.1	U	5.1	2.1		1
12952	EFH (C30-C40)	n.a.	10	U	10	4.1		1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1		1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.1		1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.1		1
13197	EFH C21-C30 w/ SiGel	n.a.	5.1	U	5.1	2.1		1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.1		1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.1		1
	The reverse surrogate, capric acid, is present at <1%.							
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,800		41.1	7.41		1
06944	Antimony	7440-36-0	4.11	U	4.11	0.761		1
06935	Arsenic	7440-38-2	3.11	J	4.11	0.719		1
06946	Barium	7440-39-3	73.4		1.03	0.0339		1
06947	Beryllium	7440-41-7	0.529	J	1.03	0.0689		1
07914	Boron	7440-42-8	7.53	J	10.3	0.863		1
06949	Cadmium	7440-43-9	0.170	J	1.03	0.0781		1
01650	Calcium	7440-70-2	1,880		20.6	3.43		1
06951	Chromium	7440-47-3	12.8		3.08	0.164		1
06952	Cobalt	7440-48-4	4.11		1.03	0.102		1
06953	Copper	7440-50-8	5.23		2.06	0.298		1
01654	Iron	7439-89-6	16,900		41.1	3.72		1
06955	Lead	7439-92-1	4.28		3.08	0.514		1
01656	Lithium	7439-93-2	21.1		4.1	0.35		1
01657	Magnesium	7439-95-4	3,640		10.3	1.72		1
06958	Manganese	7439-96-5	235		1.03	0.0853		1
06960	Molybdenum	7439-98-7	0.192	J	2.06	0.175		1
06961	Nickel	7440-02-0	6.90		2.06	0.134		1
10145	Phosphorus	7723-14-0	262		10.3	2.97		1
01662	Potassium	7440-09-7	2,730		103	8.57		1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-653-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485079
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:45 by AP

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR50- SDG#: PH212-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01667	Sodium	7440-23-5	68.6	J	103	17.2		1
06969	Tin	7440-31-5	2.78	J	10.3	0.226		1
06970	Titanium	7440-32-6	950		1.03	0.175		1
06971	Vanadium	7440-62-2	27.8		1.03	0.134		1
06972	Zinc	7440-66-6	51.0		4.11	0.206		1
10146	Zirconium	7440-67-7	2.41	J	5.14	0.863		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.262	J	0.411	0.103		2
06142	Silver	7440-22-4	0.206	U	0.206	0.0267		2
06144	Strontium	7440-24-6	16.6		0.411	0.0699		2
06145	Thallium	7440-28-0	0.270		0.206	0.0308		2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0163	U	0.0163	0.0098		1
Wet Chemistry	**SW-846 7199**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05892	2a Chromium VI by EPA 7199	18540-29-9	0.42	U	0.42	0.15		1
	SW-846 9045D modified		**Std. Units**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 22.7 C.	n.a.	7.92		0.0100	0.0100		1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	2.7		0.10	0.10		1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-653-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485079
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:45 by AP

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR50- SDG#: PH212-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.260	JQ	1.00	0.146		1
11031	12378-PeCDD	40321-76-4	0.112	JQ	5.01	0.0970		1
11031	123478-HxCDD	39227-28-6	5.01	U	5.01	0.0393		1
11031	123678-HxCDD	57653-85-7	5.01	U	5.01	0.0414		1
11031	123789-HxCDD	19408-74-3	0.104	JQ	5.01	0.0414		1
11031	1234678-HpCDD	35822-46-9	0.201	JB	5.01	0.0510		1
11031	OCDD	3268-87-9	3.06	JB	10.0	0.0406		1
11031	2378-TCDF	51207-31-9	1.00	U	1.00	0.112		1
11031	12378-PeCDF	57117-41-6	0.0554	JBQ	5.01	0.0425		1
11031	23478-PeCDF	57117-31-4	0.0578	JBQ	5.01	0.0426		1
11031	123478-HxCDF	70648-26-9	0.124	JBQ	5.01	0.0439		1
11031	123678-HxCDF	57117-44-9	5.01	U	5.01	0.0388		1
11031	123789-HxCDF	72918-21-9	0.0844	JBQ	5.01	0.0386		1
11031	234678-HxCDF	60851-34-5	5.01	U	5.01	0.0380		1
11031	1234678-HpCDF	67562-39-4	0.0653	JB	5.01	0.0147		1
11031	1234789-HpCDF	55673-89-7	0.0609	JBQ	5.01	0.0282		1
11031	OCDF	39001-02-0	0.355	JBQ	10.0	0.0761		1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.00358					1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	65	25 - 164
13C12-12378-PeCDD	72	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	83	23 - 140
13C12-OCDD	92	17 - 157
13C12-2378-TCDF	60	24 - 169
13C12-12378-PeCDF	79	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	81	29 - 147
13C12-1234678-HpCDF	104	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	65	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-653-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485079
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:45 by AP

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR50- SDG#: PH212-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Action Limit	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-653-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485079
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:45 by AP

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR50- SDG#: PH212-02

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	8a SVOCs by EPA 8270D	SW-846 8270D	1	14154SLH026	06/13/2014 09:04	Brian K Graham	1
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14154SLI026	06/10/2014 08:57	Mark A Clark	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	14154SLH026	06/04/2014 09:30	David S Schrum	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14154SLI026	06/04/2014 09:30	David S Schrum	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14154A16A	06/04/2014 16:25	Laura M Krieger	25.2
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201415434686	06/03/2014 13:07	Larry E Bevins	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201415434686	06/03/2014 13:08	Larry E Bevins	n.a.
10132	24a Energetics by 8330A	SW-846 8330	1	141550001A	06/07/2014 00:30	James H Place	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	141560024A	06/07/2014 02:38	Lisa A Reinert	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141550002A	06/05/2014 20:38	Richard A Shober	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141580004A	06/10/2014 18:24	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141540027A	06/10/2014 04:33	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141540027A	06/04/2014 07:40	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141580004A	06/08/2014 08:50	Katheryne V Sponheimer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	141560024A	06/06/2014 10:00	William H Saadeh	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141550002A	06/05/2014 06:15	Maria Davenport	1
11137	Energetics Extraction	SW-846 8330	1	141550001A	06/04/2014 13:15	Wanda F Oswald	1
12934	26a Glycols by EPA 8015C	SW-846 8015C Feb 2007 Rev 3	1	141550013A	06/06/2014 22:30	Tyler O Griffin	1
10318	27a Terphenyls by 8015B	SW-846 8015B	1	141560017A	06/06/2014 17:40	Glorines Suarez-Rivera	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540029A	06/04/2014 21:03	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540030A	06/06/2014 01:49	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540030A	06/04/2014 09:30	David S Schrum	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540029A	06/04/2014 09:30	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	141560017A	06/05/2014 17:00	JoElla L Rice	1
12933	Glycols Sonication Extraction	SW-846 3550C	1	141550013A	06/04/2014 20:00	David V Hershey Jr	1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-653-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485079
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:45 by AP

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR50- SDG#: PH212-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14161001	06/11/2014 21:54	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14161001	06/10/2014 09:30	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	141610637001	06/12/2014 05:08	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	141610637001B	06/12/2014 07:51	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141610637001A	06/12/2014 07:51	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141610637001A	06/12/2014 07:51	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141610637001A	06/12/2014 07:51	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141610638001	06/12/2014 08:45	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141610637001	06/11/2014 08:51	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141610638001	06/11/2014 12:00	James L Mertz	1
05892	2a Chromium VI by EPA 7199	SW-846 7199	1	14155243201A	06/05/2014 19:38	Clinton M Wilson	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14154039403A	06/03/2014 21:10	Luz M Groff	1
02432	Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	14155243201A	06/04/2014 21:20	Daniel S Smith	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14157162401B	06/06/2014 20:26	Scott W Freisher	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-653-SA5C-TR-10.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485080
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:55 by AP

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR10- SDG#: PH212-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270D			ug/kg		ug/kg	ug/kg	ug/kg	
10726	Aniline	62-53-3	520	U	520	170		1
10726	Benzidine	92-87-5	3,500	U	3,500	730		1
10726	Benzoic acid	65-85-0	520	U	520	170		1
10726	Benzyl alcohol	100-51-6	520	U	520	170		1
10726	1,1'-Biphenyl	92-52-4	35	U	35	17		1
10726	4-Bromophenyl-phenylether	101-55-3	35	U	35	17		1
10726	Carbazole	86-74-8	35	U	35	17		1
10726	4-Chloro-3-methylphenol	59-50-7	35	U	35	17		1
10726	4-Chloroaniline	106-47-8	35	U	35	17		1
10726	bis(2-Chloroethoxy)methane	111-91-1	35	U	35	17		1
10726	bis(2-Chloroethyl)ether	111-44-4	35	U	35	17		1
10726	bis(2-Chloroisopropyl)ether	39638-32-9	35	U	35	17		1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.							
10726	2-Chloronaphthalene	91-58-7	35	U	35	7		1
10726	2-Chlorophenol	95-57-8	35	U	35	17		1
10726	4-Chlorophenyl-phenylether	7005-72-3	35	U	35	17		1
10726	Dibenzofuran	132-64-9	35	U	35	17		1
10726	1,2-Dichlorobenzene	95-50-1	35	U	35	17		1
10726	1,3-Dichlorobenzene	541-73-1	35	U	35	17		1
10726	1,4-Dichlorobenzene	106-46-7	35	U	35	17		1
10726	3,3'-Dichlorobenzidine	91-94-1	350	U	350	100		1
10726	2,4-Dichlorophenol	120-83-2	35	U	35	17		1
10726	2,6-Dichlorophenol	87-65-0	35	U	35	17		1
10726	2,4-Dimethylphenol	105-67-9	35	U	35	17		1
10726	3,5-Dimethylphenol	108-68-9	170	U	170	35		1
10726	4,6-Dinitro-2-methylphenol	534-52-1	520	U	520	170		1
10726	2,4-Dinitrophenol	51-28-5	1,000	U	1,000	310		1
10726	1,2-Diphenylhydrazine	122-66-7	35	U	35	17		1
10726	Hexachlorobenzene	118-74-1	18	U	18	3		1
10726	Hexachlorobutadiene	87-68-3	35	U	35	17		1
10726	Hexachlorocyclopentadiene	77-47-4	520	U	520	170		1
10726	Hexachloroethane	67-72-1	170	U	170	35		1
10726	Isophorone	78-59-1	35	U	35	17		1
10726	2-Methylphenol	95-48-7	35	U	35	17		1
10726	4-Methylphenol	106-44-5	35	U	35	17		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
10726	NDPA as diphenylamine	n.a.	170	U	170	35		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10726	2-Nitroaniline	88-74-4	35	U	35	17		1
10726	3-Nitroaniline	99-09-2	170	U	170	70		1
10726	4-Nitroaniline	100-01-6	170	U	170	70		1
10726	Nitrobenzene	98-95-3	35	U	35	17		1
10726	2-Nitrophenol	88-75-5	35	U	35	17		1
10726	4-Nitrophenol	100-02-7	520	U	520	170		1

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Sample Description: SL-653-SA5C-TR-10.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485080
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:55 by AP

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR10- SDG#: PH212-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10726	N-Nitroso-di-n-propylamine	621-64-7	35	U	35	17		1
10726	N-Nitrosodiphenylamine	86-30-6	35	U	35	17		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10726	Pentachlorophenol	87-86-5	180	U	180	35		1
10726	Phenol	108-95-2	35	U	35	17		1
10726	Pyridine	110-86-1	170	U	170	70		1
10726	1,2,4-Trichlorobenzene	120-82-1	35	U	35	17		1
10726	2,4,5-Trichlorophenol	95-95-4	35	U	35	17		1
10726	2,4,6-Trichlorophenol	88-06-2	35	U	35	17		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: 4,6-dinitro-2-methylphenol 4-nitroaniline							
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70		1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35		1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35		1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.70		1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.70		1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.70		1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5		1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.70		1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.70		1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3		1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3		1
12969	Chrysene	218-01-9	1.7	U	1.7	0.35		1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.70		1
12969	Diethylphthalate	84-66-2	19	U	19	6.3		1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3		1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.70		1
12969	Fluorene	86-73-7	1.7	U	1.7	0.70		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.70		1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.70		1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.70		1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.70		1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70		1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3		1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.70		1
12969	Pyrene	129-00-0	1.7	U	1.7	0.70		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: benzo(e)pyrene							

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Sample Description: SL-653-SA5C-TR-10.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485080
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:55 by AP

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR10- SDG#: PH212-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1	U	1	0.2		23.67
Explosives	**SW-846 8330**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	310	U	310	160	10000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	310	U	310	100	10000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	420	U	420	210	10000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	420	U	420	210	10000000	1
10132	1,3-Dinitrobenzene	99-65-0	310	U	310	100	10000000	1
10132	2,4-Dinitrotoluene	121-14-2	310	U	310	100	10000000	1
10132	2,6-Dinitrotoluene	606-20-2	310	U	310	100	10000000	1
10132	HMX	2691-41-0	420	U	420	210	10000000	1
10132	Nitrobenzene	98-95-3	310	U	310	100	10000000	1
10132	Nitroglycerin	55-63-0	3,800	U	3,800	3,800	10000000	1
10132	2-Nitrotoluene	88-72-2	310	U	310	210	10000000	1
10132	3-Nitrotoluene	99-08-1	310	U	310	260	10000000	1
10132	4-Nitrotoluene	99-99-0	310	U	310	210	10000000	1
10132	PETN	78-11-5	2,100	U	2,100	1,000	10000000	1
10132	RDX	121-82-4	310	U	310	140	10000000	1
10132	Tetryl	479-45-8	310	U	310	170	10000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	310	U	310	100	10000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	310	U	310	100	10000000	1
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	38	U	38	13		1
10401	Dalapon	75-99-0	94	U	94	46		1
10401	2,4-DB	94-82-6	18	U	18	6.5		1
10401	Dicamba	1918-00-9	13	U	13	4.2		1
10401	Dinoseb	88-85-7	25	U	25	9.4		1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.							
10401	2,4-DP (Dichlorprop)	120-36-5	18	U	18	9.4		1

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CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10401	MCPA	94-74-6	2,600	U	2,600	790		1
10401	MCPP (Mecoprop)	93-65-2	2,600	U	2,600	780		1
10401	2,4,5-T	93-76-5	1.8	U	1.8	0.85		1
10401	2,4,5-TP	93-72-1	1.8	U	1.8	0.78		1
Perchlorate	**SW-846 6850 1/2007**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.2	U	5.2	2.2		1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.87	U	0.87	0.18		1
10590	Alpha BHC	319-84-6	0.87	U	0.87	0.18		1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0		1
10590	Gamma BHC - Lindane	58-89-9	0.87	U	0.87	0.18		1
10590	Chlordane	57-74-9	18	U	18	4.2		1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.35		1
10590	p,p-DDE	72-55-9	1.8	U	1.8	0.35		1
10590	p,p-DDT	50-29-3	1.8	U	1.8	0.37		1
10590	Delta BHC	319-86-8	0.87	U	0.87	0.47		1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.35		1
10590	Endosulfan I	959-98-8	0.87	U	0.87	0.23		1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.35		1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.35		1
10590	Endrin	72-20-8	1.8	U	1.8	0.35		1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.35		1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.63		1
10590	Heptachlor	76-44-8	0.87	U	0.87	0.18		1
10590	Heptachlor Epoxide	1024-57-3	0.87	U	0.87	0.18		1
10590	Methoxychlor	72-43-5	7.0	U	7.0	1.8		1
10590	Mirex	2385-85-5	1.8	U	1.8	0.37		1
10590	Toxaphene	8001-35-2	35	U	35	15		1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10		1
13099	Aroclor 5442	12642-23-8	34	U	34	10		1
13099	Aroclor 5460	11126-42-4	34	U	34	10		1
13099	PCB-1016	12674-11-2	17	U	17	3.4		1
13099	PCB-1221	11104-28-2	17	U	17	5.2		1
13099	PCB-1232	11141-16-5	17	U	17	4.2		1
13099	PCB-1242	53469-21-9	17	U	17	4.2		1
13099	PCB-1248	12672-29-6	17	U	17	3.4		1
13099	PCB-1254	11097-69-1	17	U	17	4.5		1
13099	PCB-1260	11096-82-5	17	U	17	4.0		1
13099	PCB-1262	37324-23-5	17	U	17	3.4		1
13099	PCB-1268	11100-14-4	17	U	17	3.4		1
	For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.							
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	

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Sample Description: SL-653-SA5C-TR-10.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485080
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

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CDM Federal Programs Corp.
3201 Jermantown Road
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TR10- SDG#: PH212-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12934	Diethylene glycol	111-46-6	10	U	10	5.2		1
12934	Ethylene glycol	107-21-1	10	U	10	5.2		1
12934	Propylene glycol	57-55-6	10	U	10	5.2		1
12934	Triethylene glycol	112-27-6	10	U	10	5.2		1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	0.18	U	0.18	0.070		1
10318	o-Terphenyl	84-15-1	0.18	U	0.18	0.070		1
10318	p-Terphenyl	92-94-4	0.18	U	0.18	0.070		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1		1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1		1
12952	EFH (C21-C30)	n.a.	5.2	U	5.2	2.1		1
12952	EFH (C30-C40)	n.a.	10	U	10	4.2		1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1		1
13197	EFH C12-C14 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
13197	EFH C15-C20 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
13197	EFH C21-C30 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.2		1
13197	EFH C8-C11 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
	The reverse surrogate, capric acid, is present at <1%.							
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	17,200		40.6	7.32		1
06944	Antimony	7440-36-0	4.06	U	4.06	0.752		1
06935	Arsenic	7440-38-2	3.14	J	4.06	0.711		1
06946	Barium	7440-39-3	82.3		1.02	0.0335		1
06947	Beryllium	7440-41-7	0.684	J	1.02	0.0680		1
07914	Boron	7440-42-8	7.17	J	10.2	0.853		1
06949	Cadmium	7440-43-9	0.183	J	1.02	0.0772		1
01650	Calcium	7440-70-2	2,250		20.3	3.39		1
06951	Chromium	7440-47-3	15.7		3.05	0.162		1
06952	Cobalt	7440-48-4	4.77		1.02	0.101		1
06953	Copper	7440-50-8	5.66		2.03	0.295		1
01654	Iron	7439-89-6	19,600		40.6	3.68		1
06955	Lead	7439-92-1	5.12		3.05	0.508		1
01656	Lithium	7439-93-2	21.4		4.1	0.35		1
01657	Magnesium	7439-95-4	3,730		10.2	1.70		1
06958	Manganese	7439-96-5	210		1.02	0.0843		1
06960	Molybdenum	7439-98-7	0.186	J	2.03	0.173		1
06961	Nickel	7440-02-0	8.57		2.03	0.132		1
10145	Phosphorus	7723-14-0	157		10.2	2.93		1
01662	Potassium	7440-09-7	1,750		102	8.47		1

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Sample Description: SL-653-SA5C-TR-10.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485080
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Account # 13013

Project Name: SSFL Phase 3 Sampling

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TR10- SDG#: PH212-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01667	Sodium	7440-23-5	138		102	17.0		1
06969	Tin	7440-31-5	2.77	J	10.2	0.223		1
06970	Titanium	7440-32-6	969		1.02	0.173		1
06971	Vanadium	7440-62-2	34.1		1.02	0.132		1
06972	Zinc	7440-66-6	40.7		4.06	0.203		1
10146	Zirconium	7440-67-7	3.28	J	5.08	0.853		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.229	J	0.406	0.102		2
06142	Silver	7440-22-4	0.0305	J	0.203	0.0264		2
06144	Strontium	7440-24-6	19.6		0.406	0.0691		2
06145	Thallium	7440-28-0	0.233		0.203	0.0305		2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0169	U	0.0169	0.0101		1
Wet Chemistry	**SW-846 7199**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05892	2a Chromium VI by EPA 7199	18540-29-9	0.43	U	0.43	0.15		1
	SW-846 9045D modified		**Std. Units**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 23 C.	n.a.	8.15		0.0100	0.0100		1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	4.4		0.10	0.10		1

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TR10- SDG#: PH212-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.01	U	1.01	0.145		1
11031	12378-PeCDD	40321-76-4	5.07	U	5.07	0.0832		1
11031	123478-HxCDD	39227-28-6	5.07	U	5.07	0.0462		1
11031	123678-HxCDD	57653-85-7	0.0825	JBQ	5.07	0.0481		1
11031	123789-HxCDD	19408-74-3	0.0529	JQ	5.07	0.0468		1
11031	1234678-HpCDD	35822-46-9	0.0801	JBQ	5.07	0.0447		1
11031	OCDD	3268-87-9	0.877	JB	10.1	0.0308		1
11031	2378-TCDF	51207-31-9	1.01	U	1.01	0.0998		1
11031	12378-PeCDF	57117-41-6	0.0525	JBQ	5.07	0.0452		1
11031	23478-PeCDF	57117-31-4	5.07	U	5.07	0.0433		1
11031	123478-HxCDF	70648-26-9	0.0475	JBQ	5.07	0.0412		1
11031	123678-HxCDF	57117-44-9	5.07	U	5.07	0.0379		1
11031	123789-HxCDF	72918-21-9	0.0745	JBQ	5.07	0.0390		1
11031	234678-HxCDF	60851-34-5	5.07	U	5.07	0.0372		1
11031	1234678-HpCDF	67562-39-4	0.0339	JBQ	5.07	0.0114		1
11031	1234789-HpCDF	55673-89-7	0.0442	JBQ	5.07	0.0208		1
11031	OCDF	39001-02-0	0.133	JBQ	10.1	0.0761		1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.000263					1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	58	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	75	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	83	23 - 140
13C12-OCDD	81	17 - 157
13C12-2378-TCDF	58	24 - 169
13C12-12378-PeCDF	73	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	73	29 - 147
13C12-1234678-HpCDF	101	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	61	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-653-SA5C-TR-10.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485080
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:55 by AP

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR10- SDG#: PH212-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Action Limit	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-653-SA5C-TR-10.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485080
LL Group # 1478782
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Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:55 by AP

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3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR10- SDG#: PH212-03

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	8a SVOCs by EPA 8270D	SW-846 8270D	1	14154SLH026	06/13/2014 09:31	Brian K Graham	1
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14154SLI026	06/10/2014 09:29	Mark A Clark	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	14154SLH026	06/04/2014 09:30	David S Schrum	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14154SLI026	06/04/2014 09:30	David S Schrum	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14154A16A	06/04/2014 17:02	Laura M Krieger	23.67
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201415434686	06/03/2014 13:06	Larry E Bevins	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201415434686	06/03/2014 13:07	Larry E Bevins	n.a.
10132	24a Energetics by 8330A	SW-846 8330	1	141550001A	06/07/2014 01:12	James H Place	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	141560024A	06/07/2014 03:05	Lisa A Reinert	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141550002A	06/05/2014 20:50	Richard A Shober	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141580004A	06/10/2014 18:38	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141540027A	06/10/2014 04:52	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141540027A	06/04/2014 07:40	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141580004A	06/08/2014 08:50	Katheryne V Sponheimer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	141560024A	06/06/2014 10:00	William H Saadeh	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141550002A	06/05/2014 06:15	Maria Davenport	1
11137	Energetics Extraction	SW-846 8330	1	141550001A	06/04/2014 13:15	Wanda F Oswald	1
12934	26a Glycols by EPA 8015C	SW-846 8015C Feb 2007 Rev 3	1	141550013A	06/06/2014 22:45	Tyler O Griffin	1
10318	27a Terphenyls by 8015B	SW-846 8015B	1	141560017A	06/06/2014 18:03	Glorines Suarez-Rivera	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540029A	06/04/2014 21:25	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540030A	06/06/2014 02:11	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540030A	06/04/2014 09:30	David S Schrum	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540029A	06/04/2014 09:30	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	141560017A	06/05/2014 17:00	JoElla L Rice	1
12933	Glycols Sonication Extraction	SW-846 3550C	1	141550013A	06/04/2014 20:00	David V Hershey Jr	1

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Sample Description: SL-653-SA5C-TR-10.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485080
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 10:55 by AP

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR10- SDG#: PH212-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14161001	06/11/2014 22:51	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14161001	06/10/2014 09:30	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	141610637001	06/12/2014 05:19	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	141610637001B	06/12/2014 07:58	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141610637001A	06/12/2014 07:58	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141610637001A	06/12/2014 07:58	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141610637001A	06/12/2014 07:58	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141610638001	06/12/2014 08:47	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141610637001	06/11/2014 08:51	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141610638001	06/11/2014 12:00	James L Mertz	1
05892	2a Chromium VI by EPA 7199	SW-846 7199	1	14155243201A	06/05/2014 19:54	Clinton M Wilson	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14154039403A	06/03/2014 21:10	Luz M Groff	1
02432	Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	14155243201A	06/04/2014 21:20	Daniel S Smith	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14157162401B	06/06/2014 20:26	Scott W Freisher	1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-653-SA5C-TR-15.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485081
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 09:20 by AP

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR15- SDG#: PH212-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		ug/kg		ug/kg	ug/kg	ug/kg	
10726	Aniline	62-53-3	520	U	520	170		1
10726	Benzidine	92-87-5	3,400	U	3,400	720		1
10726	Benzoic acid	65-85-0	520	U	520	170		1
10726	Benzyl alcohol	100-51-6	520	U	520	170		1
10726	1,1'-Biphenyl	92-52-4	34	U	34	17		1
10726	4-Bromophenyl-phenylether	101-55-3	34	U	34	17		1
10726	Carbazole	86-74-8	34	U	34	17		1
10726	4-Chloro-3-methylphenol	59-50-7	34	U	34	17		1
10726	4-Chloroaniline	106-47-8	34	U	34	17		1
10726	bis(2-Chloroethoxy)methane	111-91-1	34	U	34	17		1
10726	bis(2-Chloroethyl)ether	111-44-4	34	U	34	17		1
10726	bis(2-Chloroisopropyl)ether	39638-32-9	34	U	34	17		1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.							
10726	2-Chloronaphthalene	91-58-7	34	U	34	7		1
10726	2-Chlorophenol	95-57-8	34	U	34	17		1
10726	4-Chlorophenyl-phenylether	7005-72-3	34	U	34	17		1
10726	Dibenzofuran	132-64-9	34	U	34	17		1
10726	1,2-Dichlorobenzene	95-50-1	34	U	34	17		1
10726	1,3-Dichlorobenzene	541-73-1	34	U	34	17		1
10726	1,4-Dichlorobenzene	106-46-7	34	U	34	17		1
10726	3,3'-Dichlorobenzidine	91-94-1	340	U	340	100		1
10726	2,4-Dichlorophenol	120-83-2	34	U	34	17		1
10726	2,6-Dichlorophenol	87-65-0	34	U	34	17		1
10726	2,4-Dimethylphenol	105-67-9	34	U	34	17		1
10726	3,5-Dimethylphenol	108-68-9	170	U	170	34		1
10726	4,6-Dinitro-2-methylphenol	534-52-1	520	U	520	170		1
10726	2,4-Dinitrophenol	51-28-5	1,000	U	1,000	310		1
10726	1,2-Diphenylhydrazine	122-66-7	34	U	34	17		1
10726	Hexachlorobenzene	118-74-1	18	U	18	3		1
10726	Hexachlorobutadiene	87-68-3	34	U	34	17		1
10726	Hexachlorocyclopentadiene	77-47-4	520	U	520	170		1
10726	Hexachloroethane	67-72-1	170	U	170	34		1
10726	Isophorone	78-59-1	34	U	34	17		1
10726	2-Methylphenol	95-48-7	34	U	34	17		1
10726	4-Methylphenol	106-44-5	34	U	34	17		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
10726	NDPA as diphenylamine	n.a.	170	U	170	34		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10726	2-Nitroaniline	88-74-4	34	U	34	17		1
10726	3-Nitroaniline	99-09-2	170	U	170	69		1
10726	4-Nitroaniline	100-01-6	170	U	170	69		1
10726	Nitrobenzene	98-95-3	34	U	34	17		1
10726	2-Nitrophenol	88-75-5	34	U	34	17		1
10726	4-Nitrophenol	100-02-7	520	U	520	170		1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-653-SA5C-TR-15.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485081
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 09:20 by AP

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR15- SDG#: PH212-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10726	N-Nitroso-di-n-propylamine	621-64-7	34	U	34	17		1
10726	N-Nitrosodiphenylamine	86-30-6	34	U	34	17		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10726	Pentachlorophenol	87-86-5	180	U	180	34		1
10726	Phenol	108-95-2	34	U	34	17		1
10726	Pyridine	110-86-1	170	U	170	69		1
10726	1,2,4-Trichlorobenzene	120-82-1	34	U	34	17		1
10726	2,4,5-Trichlorophenol	95-95-4	34	U	34	17		1
10726	2,4,6-Trichlorophenol	88-06-2	34	U	34	17		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: 4,6-dinitro-2-methylphenol 4-nitroaniline							
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69		1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34		1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34		1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69		1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69		1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69		1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.4		1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69		1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69		1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2		1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2		1
12969	Chrysene	218-01-9	0.62	J	1.7	0.34		1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69		1
12969	Diethylphthalate	84-66-2	19	U	19	6.2		1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.2		1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.69		1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69		1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69		1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69		1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.69		1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69		1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2		1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69		1
12969	Pyrene	129-00-0	1.7	U	1.7	0.69		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: benzo(e)pyrene							

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-653-SA5C-TR-15.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485081
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 09:20 by AP

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR15- SDG#: PH212-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2		25.3
Explosives	**SW-846 8330**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	310	U	310	150	10000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	310	U	310	100	10000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	410	U	410	210	10000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	410	U	410	210	10000000	1
10132	1,3-Dinitrobenzene	99-65-0	310	U	310	100	10000000	1
10132	2,4-Dinitrotoluene	121-14-2	310	U	310	100	10000000	1
10132	2,6-Dinitrotoluene	606-20-2	310	U	310	100	10000000	1
10132	HMX	2691-41-0	410	U	410	210	10000000	1
10132	Nitrobenzene	98-95-3	310	U	310	100	10000000	1
10132	Nitroglycerin	55-63-0	2,100	U	2,100	1,000	10000000	1
10132	2-Nitrotoluene	88-72-2	310	U	310	210	10000000	1
10132	3-Nitrotoluene	99-08-1	310	U	310	260	10000000	1
10132	4-Nitrotoluene	99-99-0	310	U	310	210	10000000	1
10132	PETN	78-11-5	2,100	U	2,100	1,000	10000000	1
10132	RDX	121-82-4	310	U	310	130	10000000	1
10132	Tetryl	479-45-8	310	U	310	170	10000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	310	U	310	100	10000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	310	U	310	100	10000000	1
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	37	U	37	12		1
10401	Dalapon	75-99-0	93	U	93	45		1
10401	2,4-DB	94-82-6	17	U	17	16		1
10401	Dicamba	1918-00-9	12	U	12	4.1		1
10401	Dinoseb	88-85-7	25	U	25	9.3		1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.							
10401	2,4-DP (Dichlorprop)	120-36-5	17	U	17	9.3		1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-653-SA5C-TR-15.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485081
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 09:20 by AP

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR15- SDG#: PH212-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10401	MCPA	94-74-6	2,600	U	2,600	780		1
10401	MCPP (Mecoprop)	93-65-2	2,600	U	2,600	770		1
10401	2,4,5-T	93-76-5	1.7	U	1.7	0.84		1
10401	2,4,5-TP	93-72-1	1.7	U	1.7	0.77		1
	Reporting limits were raised due to interference from the sample matrix.							
Perchlorate	**SW-846 6850 1/2007**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.2	U	5.2	2.2		1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.85	U	0.85	0.17		1
10590	Alpha BHC	319-84-6	0.85	U	0.85	0.17		1
10590	Beta BHC	319-85-7	1.9	U	1.9	0.98		1
10590	Gamma BHC - Lindane	58-89-9	0.85	U	0.85	0.17		1
10590	Chlordane	57-74-9	17	U	17	4.1		1
10590	p,p-DDD	72-54-8	1.7	U	1.7	0.34		1
10590	p,p-DDE	72-55-9	1.1	J	1.7	0.34		1
10590	p,p-DDT	50-29-3	1.2	J	1.7	0.36		1
10590	Delta BHC	319-86-8	0.85	U	0.85	0.46		1
10590	Dieldrin	60-57-1	1.7	U	1.7	0.34		1
10590	Endosulfan I	959-98-8	0.85	U	0.85	0.22		1
10590	Endosulfan II	33213-65-9	1.7	U	1.7	0.34		1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.34		1
10590	Endrin	72-20-8	1.7	U	1.7	0.34		1
10590	Endrin Aldehyde	7421-93-4	1.7	U	1.7	0.34		1
10590	Endrin Ketone	53494-70-5	1.8	U	1.8	0.61		1
10590	Heptachlor	76-44-8	0.85	U	0.85	0.17		1
10590	Heptachlor Epoxide	1024-57-3	0.85	U	0.85	0.17		1
10590	Methoxychlor	72-43-5	6.8	U	6.8	1.7		1
10590	Mirex	2385-85-5	1.7	U	1.7	0.36		1
10590	Toxaphene	8001-35-2	34	U	34	14		1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10		1
13099	Aroclor 5442	12642-23-8	33	U	33	10		1
13099	Aroclor 5460	11126-42-4	33	U	33	10		1
13099	PCB-1016	12674-11-2	17	U	17	3.3		1
13099	PCB-1221	11104-28-2	17	U	17	5.2		1
13099	PCB-1232	11141-16-5	17	U	17	4.2		1
13099	PCB-1242	53469-21-9	17	U	17	4.2		1
13099	PCB-1248	12672-29-6	17	U	17	3.3		1
13099	PCB-1254	11097-69-1	17	U	17	4.5		1
13099	PCB-1260	11096-82-5	17	U	17	4.0		1
13099	PCB-1262	37324-23-5	17	U	17	3.3		1
13099	PCB-1268	11100-14-4	17	U	17	3.3		1

For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-653-SA5C-TR-15.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485081
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 09:20 by AP

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR15- SDG#: PH212-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12934	Diethylene glycol	111-46-6	10	U	10	5.2		1
12934	Ethylene glycol	107-21-1	10	U	10	5.2		1
12934	Propylene glycol	57-55-6	10	U	10	5.2		1
12934	Triethylene glycol	112-27-6	10	U	10	5.2		1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	0.18	U	0.18	0.069		1
10318	o-Terphenyl	84-15-1	0.18	U	0.18	0.069		1
10318	p-Terphenyl	92-94-4	0.18	U	0.18	0.069		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1		1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1		1
12952	EFH (C21-C30)	n.a.	6.3		5.2	2.1		1
12952	EFH (C30-C40)	n.a.	9.1	J	10	4.1		1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1		1
13197	EFH C12-C14 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
13197	EFH C15-C20 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
13197	EFH C21-C30 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.1		1
13197	EFH C8-C11 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
	The reverse surrogate, capric acid, is present at <1%.							
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	17,200		40.9	7.37		1
06944	Antimony	7440-36-0	4.09	U	4.09	0.756		1
06935	Arsenic	7440-38-2	4.32		4.09	0.715		1
06946	Barium	7440-39-3	111		1.02	0.0337		1
06947	Beryllium	7440-41-7	0.696	J	1.02	0.0685		1
07914	Boron	7440-42-8	8.69	J	10.2	0.858		1
06949	Cadmium	7440-43-9	0.302	J	1.02	0.0777		1
01650	Calcium	7440-70-2	2,770		20.4	3.41		1
06951	Chromium	7440-47-3	21.0		3.07	0.163		1
06952	Cobalt	7440-48-4	5.94		1.02	0.101		1
06953	Copper	7440-50-8	12.2		2.04	0.296		1
01654	Iron	7439-89-6	23,900		40.9	3.70		1
06955	Lead	7439-92-1	7.61		3.07	0.511		1
01656	Lithium	7439-93-2	25.5		4.1	0.35		1
01657	Magnesium	7439-95-4	4,690		10.2	1.71		1
06958	Manganese	7439-96-5	349		1.02	0.0848		1
06960	Molybdenum	7439-98-7	0.262	J	2.04	0.174		1
06961	Nickel	7440-02-0	12.9		2.04	0.133		1
10145	Phosphorus	7723-14-0	563		10.2	2.95		1
01662	Potassium	7440-09-7	4,690		102	8.52		1
01667	Sodium	7440-23-5	167		102	17.1		1

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Sample Description: SL-653-SA5C-TR-15.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485081
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 09:20 by AP

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR15- SDG#: PH212-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06969	Tin	7440-31-5	2.90	J	10.2	0.225		1
06970	Titanium	7440-32-6	1,070		1.02	0.174		1
06971	Vanadium	7440-62-2	39.3		1.02	0.133		1
06972	Zinc	7440-66-6	69.7		4.09	0.204		1
10146	Zirconium	7440-67-7	3.91	J	5.11	0.858		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.351	J	0.409	0.102		2
06142	Silver	7440-22-4	0.0415	J	0.204	0.0266		2
06144	Strontium	7440-24-6	26.9		0.409	0.0695		2
06145	Thallium	7440-28-0	0.388		0.204	0.0307		2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0168	U	0.0168	0.0101		1
Wet Chemistry	**SW-846 7199**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05892	2a Chromium VI by EPA 7199	18540-29-9	0.35	J	0.41	0.14		1
	SW-846 9045D modified		**Std. Units**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.04		0.0100	0.0100		1
	The pH was measured in water at 22.8 C.							
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.1		0.10	0.10		1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.							

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SSFL Phase 3 Subarea 5C

LL Sample # SW 7485081
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Project Name: SSFL Phase 3 Sampling

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TR15- SDG#: PH212-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.984	U	0.984	0.149		1
11031	12378-PeCDD	40321-76-4	4.92	U	4.92	0.0872		1
11031	123478-HxCDD	39227-28-6	4.92	U	4.92	0.0492		1
11031	123678-HxCDD	57653-85-7	0.236	JBQ	4.92	0.0531		1
11031	123789-HxCDD	19408-74-3	0.289	JQ	4.92	0.0508		1
11031	1234678-HpCDD	35822-46-9	0.482	JBQ	4.92	0.0538		1
11031	OCDD	3268-87-9	2.51	JB	9.84	0.0258		1
11031	2378-TCDF	51207-31-9	0.984	U	0.984	0.118		1
11031	12378-PeCDF	57117-41-6	0.265	JBQ	4.92	0.0494		1
11031	23478-PeCDF	57117-31-4	0.0879	JB	4.92	0.0499		1
11031	123478-HxCDF	70648-26-9	0.0929	JB	4.92	0.0532		1
11031	123678-HxCDF	57117-44-9	0.0882	JQ	4.92	0.0460		1
11031	123789-HxCDF	72918-21-9	0.681	JBQ	4.92	0.0485		1
11031	234678-HxCDF	60851-34-5	0.107	JQ	4.92	0.0477		1
11031	1234678-HpCDF	67562-39-4	0.177	JBQ	4.92	0.0160		1
11031	1234789-HpCDF	55673-89-7	4.92	U	4.92	0.0295		1
11031	OCDF	39001-02-0	0.512	JB	9.84	0.0652		1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0366					1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	63	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	104	17 - 157
13C12-2378-TCDF	62	24 - 169
13C12-12378-PeCDF	78	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	82	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	82	29 - 147
13C12-1234678-HpCDF	116	28 - 143
13C12-1234789-HpCDF	72	26 - 138
13C12-OCDF	72	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

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Sample Description: SL-653-SA5C-TR-15.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485081
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 09:20 by AP

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3201 Jermantown Road
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TR15- SDG#: PH212-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Action Limit	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

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TR15- SDG#: PH212-04

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	8a SVOCs by EPA 8270D	SW-846 8270D	1	14154SLH026	06/13/2014 09:57	Brian K Graham	1
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14154SLI026	06/10/2014 10:01	Mark A Clark	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	14154SLH026	06/04/2014 09:30	David S Schrum	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14154SLI026	06/04/2014 09:30	David S Schrum	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14154A16A	06/04/2014 17:40	Laura M Krieger	25.3
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201415434686	06/03/2014 13:05	Larry E Bevins	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201415434686	06/03/2014 13:05	Larry E Bevins	n.a.
10132	24a Energetics by 8330A	SW-846 8330	1	141550001A	06/07/2014 03:20	James H Place	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	141560024A	06/07/2014 03:31	Lisa A Reinert	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141550002A	06/05/2014 21:03	Richard A Shober	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141580004A	06/10/2014 18:51	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141540027A	06/10/2014 05:10	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141540027A	06/04/2014 07:40	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141580004A	06/08/2014 08:50	Katheryne V Sponheimer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	141560024A	06/06/2014 10:00	William H Saadeh	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141550002A	06/05/2014 06:15	Maria Davenport	1
11137	Energetics Extraction	SW-846 8330	1	141550001A	06/04/2014 13:15	Wanda F Oswald	1
12934	26a Glycols by EPA 8015C	SW-846 8015C Feb 2007 Rev 3	1	141550013A	06/06/2014 23:00	Tyler O Griffin	1
10318	27a Terphenyls by 8015B	SW-846 8015B	1	141560017A	06/06/2014 18:25	Glorines Suarez-Rivera	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141540029A	06/04/2014 21:46	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141540030A	06/06/2014 02:32	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141540030A	06/04/2014 09:30	David S Schrum	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141540029A	06/04/2014 09:30	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	141560017A	06/05/2014 17:00	JoElla L Rice	1
12933	Glycols Sonication Extraction	SW-846 3550C	1	141550013A	06/04/2014 20:00	David V Hershey Jr	1

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Sample Description: SL-653-SA5C-TR-15.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7485081
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 09:20 by AP

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3201 Jermantown Road
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TR15- SDG#: PH212-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14161001	06/11/2014 23:47	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14161001	06/10/2014 09:30	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	141610637001	06/12/2014 05:23	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	141610637001B	06/12/2014 08:01	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141610637001A	06/12/2014 08:01	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141610637001A	06/12/2014 08:01	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141610637001A	06/12/2014 08:01	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141610638001	06/12/2014 08:49	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141610637001	06/11/2014 08:51	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141610638001	06/11/2014 12:00	James L Mertz	1
05892	2a Chromium VI by EPA 7199	SW-846 7199	2	14155243201A	06/05/2014 20:33	Clinton M Wilson	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14154039403A	06/03/2014 21:10	Luz M Groff	1
02432	Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	14155243201A	06/04/2014 21:20	Daniel S Smith	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14157162401B	06/06/2014 20:26	Scott W Freisher	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: TB4-060214 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7485082
LL Group # 1478782
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/02/2014 08:00

Submitted: 06/03/2014 09:20
Reported: 07/07/2014 13:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB4-- SDG#: PH212-05TB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20		1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14157A94A	06/09/2014	12:43	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14157A94A	06/09/2014	12:43	Marie D Beamenderfer	1

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478782
Reported: 07/07/14 at 01:26 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14154SLH026	Sample number(s): 7485078-7485081									
Aniline	500 U		500.	170	ug/kg	66		43-110		
Benzidine	3,300 U		3,300.	700	ug/kg	33		21-78		
Benzo(a)pyrene	17	U	17.	3	ug/kg	98		84-122		
Benzo(b)fluoranthene	17	U	17.	3	ug/kg	83		83-124		
Benzoic acid	500 U		500.	170	ug/kg	73		41-122		
Benzyl alcohol	500 U		500.	170	ug/kg	103		81-121		
1,1'-Biphenyl	33	U	33.	17	ug/kg	85		76-117		
4-Bromophenyl-phenylether	33	U	33.	17	ug/kg	91		84-120		
Carbazole	33	U	33.	17	ug/kg	88		84-119		
4-Chloro-3-methylphenol	33	U	33.	17	ug/kg	95		86-128		
4-Chloroaniline	33	U	33.	17	ug/kg	28		10-105		
bis(2-Chloroethoxy)methane	33	U	33.	17	ug/kg	86		71-121		
bis(2-Chloroethyl)ether	33	U	33.	17	ug/kg	88		77-115		
bis(2-Chloroisopropyl)ether	33	U	33.	17	ug/kg	89		56-129		
2-Chloronaphthalene	33	U	33.	7	ug/kg	99		63-146		
2-Chlorophenol	33	U	33.	17	ug/kg	97		80-122		
4-Chlorophenyl-phenylether	33	U	33.	17	ug/kg	94		83-115		
Dibenzofuran	33	U	33.	17	ug/kg	89		85-115		
1,2-Dichlorobenzene	33	U	33.	17	ug/kg	93		79-112		
1,3-Dichlorobenzene	33	U	33.	17	ug/kg	91		79-113		
1,4-Dichlorobenzene	33	U	33.	17	ug/kg	90		79-112		
3,3'-Dichlorobenzidine	330 U		330.	100	ug/kg	39		10-125		
2,4-Dichlorophenol	33	U	33.	17	ug/kg	97		81-123		
2,6-Dichlorophenol	33	U	33.	17	ug/kg	96	95	77-113	0	30
2,4-Dimethylphenol	33	U	33.	17	ug/kg	93		83-120		
3,5-Dimethylphenol	170 U		170.	33	ug/kg	120		70-130		
4,6-Dinitro-2-methylphenol	500 U		500.	170	ug/kg	64*		67-131		
2,4-Dinitrophenol	1,000 U		1,000.	300	ug/kg	44		35-141		
1,2-Diphenylhydrazine	33	U	33.	17	ug/kg	88		77-111		
Hexachlorobenzene	17	U	17.	3	ug/kg	96		80-121		
Hexachlorobutadiene	33	U	33.	17	ug/kg	92		78-121		
Hexachlorocyclopentadiene	500 U		500.	170	ug/kg	91		66-159		
Hexachloroethane	170 U		170.	33	ug/kg	88		78-114		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478782
Reported: 07/07/14 at 01:26 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Isophorone	33	U	33.	17	ug/kg	93		77-119		
2-Methylphenol	33	U	33.	17	ug/kg	100		82-125		
4-Methylphenol	33	U	33.	17	ug/kg	95		78-126		
NDPA as diphenylamine	170	U	170.	33	ug/kg	91		70-130		
2-Nitroaniline	33	U	33.	17	ug/kg	94		84-126		
3-Nitroaniline	170	U	170.	67	ug/kg	82		66-128		
4-Nitroaniline	170	U	170.	67	ug/kg	56*		57-106		
Nitrobenzene	33	U	33.	17	ug/kg	88		73-118		
2-Nitrophenol	33	U	33.	17	ug/kg	91		83-125		
4-Nitrophenol	500	U	500.	170	ug/kg	78		58-128		
N-Nitroso-di-n-propylamine	33	U	33.	17	ug/kg	88		70-119		
N-Nitrosodiphenylamine	33	U	33.	17	ug/kg	92		83-118		
Pentachlorophenol	170	U	170.	33	ug/kg	86		57-128		
Phenol	33	U	33.	17	ug/kg	96		76-124		
Pyridine	170	U	170.	67	ug/kg	75		51-109		
1,2,4-Trichlorobenzene	33	U	33.	17	ug/kg	92		84-119		
2,4,5-Trichlorophenol	33	U	33.	17	ug/kg	95		86-123		
2,4,6-Trichlorophenol	33	U	33.	17	ug/kg	95		81-123		
Batch number: 14154SLI026	Sample number(s): 7485078-7485081									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	103		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	96		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	104		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	98		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	86		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	93		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	77*		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	97		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	87		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	97		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	99		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	93		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	103		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	83		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	87		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	99		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	105		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	95		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	103		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	97		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	102		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	100		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	93		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	94		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	98		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	92		80-119		
Batch number: 14154A16A	Sample number(s): 7485079-7485081									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	77		67-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478782
Reported: 07/07/14 at 01:26 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14157A94A	Sample number(s): 7485082								
TPH-GRO S.CA water C5-C12	50 U	50.	20	ug/l	104	104	80-133	1	30
Batch number: 141550001A	Sample number(s): 7485078-7485081								
4-Amino-2,6-Dinitrotoluene	300 U	300.	150	ug/kg	113		81-133		
2-Amino-4,6-Dinitrotoluene	300 U	300.	100	ug/kg	102		79-120		
2,6-Diamino-4-nitrotoluene	400 U	400.	200	ug/kg	100	100	59-133	0	30
2,4-Diamino-6-nitrotoluene	400 U	400.	200	ug/kg	99	99	58-132	0	30
1,3-Dinitrobenzene	300 U	300.	100	ug/kg	114		94-124		
2,4-Dinitrotoluene	300 U	300.	100	ug/kg	111		83-125		
2,6-Dinitrotoluene	300 U	300.	100	ug/kg	105		72-137		
HMX	400 U	400.	200	ug/kg	112		65-121		
Nitrobenzene	300 U	300.	100	ug/kg	102		81-116		
Nitroglycerin	2,000 U	2,000.	1,000	ug/kg	95		70-118		
2-Nitrotoluene	300 U	300.	200	ug/kg	105		86-113		
3-Nitrotoluene	300 U	300.	250	ug/kg	103		85-135		
4-Nitrotoluene	300 U	300.	200	ug/kg	104		80-122		
PETN	2,000 U	2,000.	1,000	ug/kg	158*		64-121		
RDX	300 U	300.	130	ug/kg	107		84-122		
Tetryl	300 U	300.	160	ug/kg	92		67-152		
1,3,5-Trinitrobenzene	300 U	300.	100	ug/kg	112		83-119		
2,4,6-Trinitrotoluene	300 U	300.	100	ug/kg	102		82-133		
Batch number: 141560024A	Sample number(s): 7485078-7485081								
2,4-D	36 U	36.	12	ug/kg	129		68-160		
Dalapon	90 U	90.	44	ug/kg	75		13-128		
2,4-DB	17 U	17.	6.2	ug/kg	129		73-159		
Dicamba	12 U	12.	4.0	ug/kg	125		64-128		
Dinoseb	24 U	24.	9.0	ug/kg	9*		10-56		
2,4-DP (Dichlorprop)	17 U	17.	9.0	ug/kg	174		86-178		
MCPA	2,500 U	2,500.	760	ug/kg	102		61-123		
MCPP (Mecoprop)	2,500 U	2,500.	750	ug/kg	105		59-128		
2,4,5-T	1.7 U	1.7	0.82	ug/kg	139		69-157		
2,4,5-TP	1.7 U	1.7	0.75	ug/kg	137		78-146		
Batch number: 141550002A	Sample number(s): 7485078-7485081								

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478782
Reported: 07/07/14 at 01:26 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
6a Perchlorate (Method 6850)	5.0	U	5.0	2.1	ug/kg	102		85-115		
Batch number: 141540027A	Sample number(s): 7485078-7485081									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	96	97	36-106	1	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	116		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	125		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141580004A	Sample number(s): 7485078-7485081									
Aldrin	0.83	U	0.83	0.17	ug/kg	87		60-118		
Alpha BHC	0.83	U	0.83	0.17	ug/kg	86		55-135		
Beta BHC	1.9	U	1.9	0.96	ug/kg	93		67-129		
Gamma BHC - Lindane	0.83	U	0.83	0.17	ug/kg	92		56-138		
Chlordane	17	U	17.	4.0	ug/kg					
p,p-DDD	1.7	U	1.7	0.33	ug/kg	96		69-141		
p,p-DDE	1.7	U	1.7	0.33	ug/kg	89		69-130		
p,p-DDT	1.7	U	1.7	0.35	ug/kg	85		64-139		
Delta BHC	0.83	U	0.83	0.45	ug/kg	100		59-137		
Dieldrin	1.7	U	1.7	0.33	ug/kg	97		68-134		
Endosulfan I	0.83	U	0.83	0.22	ug/kg	77		56-128		
Endosulfan II	1.7	U	1.7	0.33	ug/kg	90		68-128		
Endosulfan Sulfate	1.7	U	1.7	0.33	ug/kg	101		71-132		
Endrin	1.7	U	1.7	0.33	ug/kg	85		70-132		
Endrin Aldehyde	1.7	U	1.7	0.33	ug/kg	94		61-125		
Endrin Ketone	1.8	U	1.8	0.60	ug/kg	97		69-126		
Heptachlor	0.83	U	0.83	0.17	ug/kg	76		57-130		
Heptachlor Epoxide	0.83	U	0.83	0.17	ug/kg	96		69-125		
Methoxychlor	6.7	U	6.7	1.7	ug/kg	88		67-136		
Mirex	1.7	U	1.7	0.35	ug/kg					
Toxaphene	33	U	33.	14	ug/kg					
Batch number: 141550013A	Sample number(s): 7485078-7485081									
Diethylene glycol	10	U	10.	5.0	mg/kg	100		54-149		
Ethylene glycol	10	U	10.	5.0	mg/kg	98		76-122		
Propylene glycol	10	U	10.	5.0	mg/kg	102		67-131		
Triethylene glycol	10	U	10.	5.0	mg/kg	100		34-145		
Batch number: 141540029A	Sample number(s): 7485078-7485081									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	108		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	110		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	109		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	75		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	92		60-115		
Batch number: 141540030A	Sample number(s): 7485078-7485081									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	79		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	82		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	83		77-127		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478782
Reported: 07/07/14 at 01:26 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	66		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	58*		60-115		
Batch number: 141560017A	Sample number(s): 7485078-7485081									
m-Terphenyl	0.17	U	0.17	0.067	mg/kg	99		64-111		
o-Terphenyl	0.17	U	0.17	0.067	mg/kg	96		75-125		
p-Terphenyl	0.17	U	0.17	0.067	mg/kg	90		69-109		
Batch number: 141610637001	Sample number(s): 7485078-7485081									
Aluminum	40.0	U	40.0	7.21	mg/kg	106		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	107		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	111		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	104		80-120		
Boron	10.0	U	10.0	0.840	mg/kg	97		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	106		80-120		
Calcium	20.0	U	20.0	3.34	mg/kg	104		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	101		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	107		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	105		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	105		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	107		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	104		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	103		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	104		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	110		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	106		80-120		
Potassium	100 U		100.	8.34	mg/kg	103		80-120		
Sodium	100 U		100.	16.7	mg/kg	102		80-120		
Tin	1.54	J	10.0	0.220	mg/kg	103		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	103		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	105		80-120		
Zinc	0.790	J	4.00	0.200	mg/kg	105		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	104		80-120		
Batch number: 141610637001A	Sample number(s): 7485078-7485081									
Silver	0.200	U	0.200	0.0260	mg/kg	105		80-120		
Strontium	0.400	U	0.400	0.0680	mg/kg	105		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	107		80-120		
Batch number: 141610637001B	Sample number(s): 7485078-7485081									
Selenium	0.400	U	0.400	0.100	mg/kg	106		80-120		
Batch number: 141610638001	Sample number(s): 7485078-7485081									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	94		85-120		
Batch number: 14155243201A	Sample number(s): 7485078-7485081									
2a Chromium VI by EPA 7199	0.40	U	0.40	0.14	mg/kg	89		80-120		
Batch number: 14154039403A	Sample number(s): 7485078-7485081									
15a pH by 9045D						100		95-105		
Batch number: 14157162401B	Sample number(s): 7485078-7485081									

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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478782
Reported: 07/07/14 at 01:26 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
14a Moisture Content by 160.3					100		80-120		

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14161001	Sample number(s): 7485078-7485081								
2378-TCDD	1.00 U	1.00	0.139	ng/kg	99		67-158		
12378-PeCDD	5.00 U	5.00	0.0810	ng/kg	104		70-142		
123478-HxCDD	0.0558 J	5.00	0.0458	ng/kg	96		70-164		
123678-HxCDD	0.0628 J	5.00	0.0467	ng/kg	96		76-134		
123789-HxCDD	5.00 U	5.00	0.0452	ng/kg	98		64-162		
1234678-HpCDD	0.103 J	5.00	0.0497	ng/kg	101		70-140		
OCDD	0.217 J	10.0	0.0459	ng/kg	99		78-144		
2378-TCDF	1.00 U	1.00	0.0889	ng/kg	100		75-158		
12378-PeCDF	0.143 J	5.00	0.0416	ng/kg	94		80-134		
23478-PeCDF	0.0760 J	5.00	0.0400	ng/kg	99		68-160		
123478-HxCDF	0.0578 J	5.00	0.0489	ng/kg	97		72-134		
123678-HxCDF	5.00 U	5.00	0.0427	ng/kg	98		84-130		
123789-HxCDF	0.0787 J	5.00	0.0484	ng/kg	102		78-130		
234678-HxCDF	5.00 U	5.00	0.0442	ng/kg	91		70-156		
1234678-HpCDF	0.0595 J	5.00	0.0220	ng/kg	95		82-122		
1234789-HpCDF	0.0431 J	5.00	0.0389	ng/kg	100		78-138		
OCDF	0.216 J	10.0	0.0990	ng/kg	95		63-170		
TEQ WHO 2005 - EDLx0.0	0.00787			ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14154SLH026	Sample number(s): 7485078-7485081 UNSPK: P483434								
Aniline	62	70	10-131	13	30				
Benzidine	15*	17*	35-141	12	30				
Benzo(a)pyrene	94	97	36-151	2	30				
Benzo(b)fluoranthene	84	92	29-150	8	30				
Benzoic acid	76	76	23-170	1	30				
Benzyl alcohol	93	96	32-145	4	30				
1,1'-Biphenyl	90	89	64-120	0	30				
4-Bromophenyl-phenylether	94	94	66-122	0	30				
Carbazole	86	86	63-126	0	30				
4-Chloro-3-methylphenol	85	87	61-131	2	30				
4-Chloroaniline	43	67	11-114	43*	30				
bis(2-Chloroethoxy)methane	85	86	58-122	1	30				
bis(2-Chloroethyl)ether	85	86	66-122	2	30				
bis(2-Chloroisopropyl)ether	84	84	50-115	0	30				
2-Chloronaphthalene	91	83	50-140	9	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478782
Reported: 07/07/14 at 01:26 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
2-Chlorophenol	88	91	71-130	3	30				
4-Chlorophenyl-phenylether	92	92	65-117	1	30				
Dibenzofuran	88	88	65-124	0	30				
1,2-Dichlorobenzene	87	89	72-114	2	30				
1,3-Dichlorobenzene	86	89	67-118	3	30				
1,4-Dichlorobenzene	86	87	68-119	2	30				
3,3'-Dichlorobenzidine	38	63	10-143	50*	30				
2,4-Dichlorophenol	93	94	54-135	1	30				
2,6-Dichlorophenol	0*	0*	56-133	0	30				
2,4-Dimethylphenol	84	84	62-132	0	30				
3,5-Dimethylphenol	111	114	70-130	2	30				
4,6-Dinitro-2-methylphenol	76	65	10-148	16	30				
2,4-Dinitrophenol	56	44	20-143	24	30				
1,2-Diphenylhydrazine	87	87	51-145	0	30				
Hexachlorobenzene	98	98	46-132	1	30				
Hexachlorobutadiene	100	98	65-125	2	30				
Hexachlorocyclopentadiene	98	94	10-153	4	30				
Hexachloroethane	85	84	24-138	1	30				
Isophorone	92	92	68-119	0	30				
2-Methylphenol	87	89	62-133	3	30				
4-Methylphenol	82	85	59-132	4	30				
NDPA as diphenylamine	88	89	70-130	1	30				
2-Nitroaniline	92	95	64-131	3	30				
3-Nitroaniline	81	84	31-145	4	30				
4-Nitroaniline	67	70	30-131	5	30				
Nitrobenzene	88	88	63-125	0	30				
2-Nitrophenol	95	95	45-146	0	30				
4-Nitrophenol	73	73	25-142	1	30				
N-Nitroso-di-n-propylamine	79	82	58-126	3	30				
N-Nitrosodiphenylamine	89	90	59-135	1	30				
Pentachlorophenol	89	88	23-145	0	30				
Phenol	86	87	61-130	2	30				
Pyridine	75	80	16-108	6	30				
1,2,4-Trichlorobenzene	97	97	66-116	0	30				
2,4,5-Trichlorophenol	93	96	64-131	3	30				
2,4,6-Trichlorophenol	98	99	60-136	1	30				
Batch number: 14154SLI026	Sample number(s): 7485078-7485081 UNSPK: P483434								
Acenaphthene	95	98	48-127	3	30				
Acenaphthylene	96	97	60-128	1	30				
Anthracene	100	102	52-126	2	30				
Benzo(a)anthracene	98	99	44-143	0	30				
Benzo(a)pyrene	85	87	49-137	2	30				
Benzo(b)fluoranthene	98	99	26-142	1	30				
Benzo(e)pyrene	76	77	63-111	1	30				
Benzo(g,h,i)perylene	83	87	33-141	5	30				
Benzo(k)fluoranthene	79	80	49-144	2	30				
Butylbenzylphthalate	96	97	64-156	0	30				
Di-n-butylphthalate	98	97	52-147	2	30				
Chrysene	92	92	43-141	0	30				
Dibenz(a,h)anthracene	92	96	25-145	4	30				
Diethylphthalate	81	84	66-140	3	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478782
Reported: 07/07/14 at 01:26 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Dimethylphthalate	88	88	70-123	1	30				
Bis(2-Ethylhexyl)phthalate	103	101	48-164	2	30				
Fluoranthene	96	98	38-153	2	30				
Fluorene	93	94	57-130	2	30				
Indeno(1,2,3-cd)pyrene	98	98	26-139	0	30				
1-Methylnaphthalene	93	94	59-139	1	30				
2-Methylnaphthalene	97	99	46-147	2	30				
Naphthalene	98	99	52-136	1	30				
N-Nitrosodimethylamine	84	84	39-134	1	30				
Di-n-octylphthalate	102	102	52-162	0	30				
Phenanthrene	101	100	50-137	1	30				
Pyrene	83	82	26-143	1	30				
Batch number: 14154A16A	Sample number(s): 7485079-7485081 UNSPK: P483434								
11a TPH by EPA 8015B GRO	72	77	69-123	6	30				
Batch number: 141550001A	Sample number(s): 7485078-7485081 UNSPK: P483434								
4-Amino-2,6-Dinitrotoluene	101	108	85-118	7	50				
2-Amino-4,6-Dinitrotoluene	90	98	69-113	8	50				
1,3-Dinitrobenzene	101	107	89-119	6	50				
2,4-Dinitrotoluene	99	105	81-111	6	50				
2,6-Dinitrotoluene	95	101	86-114	6	50				
HMX	96	108*	72-107	12	50				
Nitrobenzene	91	97	86-108	6	50				
Nitroglycerin	90	104	73-116	14	50				
2-Nitrotoluene	95	100	79-112	5	50				
3-Nitrotoluene	92	98	72-119	6	50				
4-Nitrotoluene	92	99	90-118	7	50				
PETN	195*	206*	71-133	5	50				
RDX	96	103	75-108	8	50				
Tetryl	77	86	58-125	11	50				
1,3,5-Trinitrobenzene	99	107	58-135	8	50				
2,4,6-Trinitrotoluene	91*	97	92-114	6	50				
Batch number: 141560024A	Sample number(s): 7485078-7485081 UNSPK: 7485078								
2,4-D	138	133	42-143	3	35				
Dalapon	80	79	16-98	1	50				
2,4-DB	130	128	10-179	1	50				
Dicamba	123	124	47-150	0	50				
Dinoseb	20	22	10-115	10	35				
2,4-DP (Dichlorprop)	168	167	32-171	1	50				
MCPA	112	107	54-138	5	50				
MCPP (Mecoprop)	108	106	46-138	2	50				
2,4,5-T	155	149	12-172	3	35				
2,4,5-TP	137	139	65-156	2	35				
Batch number: 141550002A	Sample number(s): 7485078-7485081 UNSPK: P483434								
6a Perchlorate (Method 6850)	105	102	80-120	3	20				
Batch number: 141540027A	Sample number(s): 7485078-7485081 UNSPK: P483434								
PCB-1016	115	110	41-135	4	50				
PCB-1260	121	113	40-134	7	50				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478782
Reported: 07/07/14 at 01:26 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 141580004A	Sample number(s): 7485078-7485081 UNSPK: 7485078								
Aldrin	97	91	16-126	5	50				
Alpha BHC	82	82	14-140	1	50				
Beta BHC	102	95	42-133	7	50				
Gamma BHC - Lindane	100	95	30-137	5	50				
p,p-DDD	103	100	43-149	2	50				
p,p-DDE	99	94	35-152	4	50				
p,p-DDT	98	92	12-193	6	50				
Delta BHC	109	102	13-153	6	50				
Dieldrin	104	100	41-153	4	50				
Endosulfan I	82	79	26-146	3	50				
Endosulfan II	97	92	34-141	5	50				
Endosulfan Sulfate	111	106	10-181	3	50				
Endrin	93	88	30-152	4	50				
Endrin Aldehyde	100	95	23-138	4	50				
Endrin Ketone	105	101	30-148	3	50				
Heptachlor	84	80	16-152	5	50				
Heptachlor Epoxide	102	98	33-144	4	50				
Methoxychlor	100	94	41-161	6	50				
Batch number: 141550013A	Sample number(s): 7485078-7485081 UNSPK: P483434								
Diethylene glycol	21*	25*	59-109	15	20				
Ethylene glycol	84	96	63-107	14	20				
Propylene glycol	93	108*	63-107	15	20				
Triethylene glycol	3*	4*	66-122	30*	20				
Batch number: 141540029A	Sample number(s): 7485078-7485081 UNSPK: P483434								
EFH (C12-C14)	94	92	49-123	2	20				
EFH (C15-C20)	107	100	49-123	7	20				
EFH (C21-C30)	96	83	49-123	10	20				
EFH (C30-C40)	58	47*	49-123	10	20				
EFH (C8-C11)	90	89	49-123	1	20				
Batch number: 141540030A	Sample number(s): 7485078-7485081 UNSPK: P483434								
EFH C12-C14 w/ SiGel	74	79	49-123	7	20				
EFH C15-C20 w/ SiGel	79	82	49-123	5	20				
EFH C21-C30 w/ SiGel	155*	84	49-123	59*	20				
EFH C30-C40 w/ SiGel	73	72	49-123	1	20				
EFH C8-C11 w/ SiGel	53	59	49-123	11	20				
Batch number: 141560017A	Sample number(s): 7485078-7485081 UNSPK: P483434								
m-Terphenyl	89	97	75-125	9	20				
o-Terphenyl	87	96	75-125	9	20				
p-Terphenyl	83	90	75-125	8	20				
Batch number: 141610637001	Sample number(s): 7485078-7485081 UNSPK: P492863 BKG: P492863								
Aluminum	2006 (2)	1087 (2)	75-125	10	20	15,400	12,100	24*	20
Antimony	38*	42*	75-125	10	20	4.00 U	3.96 U	0 (1)	20
Arsenic	106	107	75-125	1	20	3.83 J	4.53	17 (1)	20
Barium	101	99	75-125	2	20	104	75.9	31*	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478782
Reported: 07/07/14 at 01:26 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc		DUP Conc		DUP RPD	Dup RPD Max
Beryllium	103	103	75-125	0	20	0.659	J	0.558	J	17 (1)	20
Boron	93	96	75-125	3	20	8.58	J	4.18	J	69* (1)	20
Cadmium	95	96	75-125	1	20	0.349	J	0.177	J	65* (1)	20
Calcium	154 (2)	186 (2)	75-125	3	20	3,870		2,860		30*	20
Chromium	112	104	75-125	4	20	18.8		19.5		3	20
Cobalt	96	96	75-125	0	20	5.50		6.52		17	20
Copper	106	105	75-125	1	20	9.37		8.30		12 (1)	20
Iron	2333 (2)	-506 (2)	75-125	12	20	21,200		23,900		12	20
Lead	107	99	75-125	5	20	9.79		4.07		83* (1)	20
Lithium	104	101	75-125	2	20	32.6		28.8		13	20
Magnesium	379 (2)	119 (2)	75-125	10	20	4,480		6,100		31*	20
Manganese	131 (2)	66 (2)	75-125	7	20	380		371		2	20
Molybdenum	93	95	75-125	2	20	0.648	J	0.430	J	41* (1)	20
Nickel	100	98	75-125	1	20	14.2		11.0		25*	20
Phosphorus	86 (2)	86 (2)	75-125	0	20	413		489		17	20
Potassium	170 (2)	128 (2)	75-125	7	20	4,230		2,390		56*	20
Sodium	101	100	75-125	0	20	78.8	J	72.9	J	8 (1)	20
Tin	87	89	75-125	2	20	2.87	J	2.83	J	1 (1)	20
Titanium	395 (2)	305 (2)	75-125	7	20	1,010		1,100		8	20
Vanadium	114	107	75-125	4	20	35.6		40.3		12	20
Zinc	107	97	75-125	5	20	61.0		54.5		11	20
Zirconium	89	91	75-125	2	20	3.90	J	4.02	J	3 (1)	20
Batch number: 141610637001A	Sample number(s): 7485078-7485081 UNSPK: P492863 BKG: P492863										
Silver	110	123	75-125	11	20	0.0514	J	0.198	U	200* (1)	20
Strontium	125	217*	75-125	18	20	26.7		11.0		83*	20
Thallium	119	132*	75-125	7	20	0.272		0.261		4 (1)	20
Batch number: 141610637001B	Sample number(s): 7485078-7485081 UNSPK: P492863 BKG: P492863										
Selenium	107	114	75-125	5	20	0.345	J	0.328	J	5 (1)	20
Batch number: 141610638001	Sample number(s): 7485078-7485081 UNSPK: P492863 BKG: P492863										
3a Mercury 7471A	104	105	65-135	0	20	0.0195		0.0161	U	200* (1)	20
Batch number: 14155243201A	Sample number(s): 7485078-7485081 UNSPK: P483434 BKG: P483434										
2a Chromium VI by EPA 7199	80		75-125			0.40	U	0.40	U	0 (1)	20
Batch number: 14154039403A	Sample number(s): 7485078-7485081 BKG: 7485078										
15a pH by 9045D						6.79		6.82		0	3
Batch number: 14157162401B	Sample number(s): 7485078-7485081 BKG: 7485079										
14a Moisture Content by 160.3						2.7		2.8		1	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478782
Reported: 07/07/14 at 01:26 PM

Surrogate Quality Control

Analysis Name: 8a SVOCs by EPA 8270D
Batch number: 14154SLH026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
7485078	71	78	80	72	78	85
7485079	77	85	87	78	87	93
7485080	73	79	82	72	80	87
7485081	86	94	96	85	92	99
Blank	86	95	107	90	95	110
LCS	91	97	93	83	87	96
LCSD	94	99	96	85	90	99
MS	80	89	89	85	91	97
MSD	81	90	91	84	90	97
Limits:	25-120	25-130	35-130	40-130	45-130	45-130

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14154SLI026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7485078	106	119*	97
7485079	100	111	90
7485080	100	112	91
7485081	100	108	88
Blank	89	99	77
LCS	102	117	92
MS	95	109	86
MSD	96	111	88
Limits:	59-115	61-118	70-127

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 14154A16A

	Trifluorotoluene-F
7485079	92
7485080	90
7485081	90
Blank	90
LCS	96
MS	83
MSD	87
Limits:	50-142

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14157A94A

	Trifluorotoluene-F
7485082	85
Blank	86
LCS	94
LCSD	93
Limits:	63-135

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478782
Reported: 07/07/14 at 01:26 PM

Surrogate Quality Control

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141540027A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7485078	108	103
7485079	113	107
7485080	118	108
7485081	103	102
Blank	116	110
LCS	122*	116
LCSD	124*	121*
MS	121*	116
MSD	116	110
Limits:	45-120	45-120

Analysis Name: 24a Energetics by 8330A
Batch number: 141550001A

	2-Nitro-m-xylene
7485078	122
7485079	117
7485080	125
7485081	120
Blank	112
LCS	113
LCSD	118
MS	106
MSD	104
Limits:	80-146

Analysis Name: 21a Herbicides by EPA 8151A
Batch number: 141560024A

	2,4-Dichlorophenylacetic acid
7485078	94
7485079	96
7485080	92
7485081	94
Blank	61
LCS	115
MS	111
MSD	109
Limits:	50-150

Analysis Name: 20a Pesticides by EPA 8081B
Batch number: 141580004A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7485078	93	104
7485079	89	104
7485080	85	103

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478782
Reported: 07/07/14 at 01:26 PM

Surrogate Quality Control

7485081	85	99
Blank	98	105
LCS	89	99
MS	98	108
MSD	93	105
Limits:	50-130	20-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141540029A

	Chlorobenzene	Orthoterphenyl
7485078	91	94
7485079	75	91
7485080	75	91
7485081	73	88
Blank	78	94
LCS	108	111
MS	78	94
MSD	77	92
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141540030A

	Chlorobenzene	Orthoterphenyl
7485078	73	83
7485079	69	79
7485080	74	82
7485081	69	77
Blank	76	85
LCS	73	84
MS	69	84
MSD	73	82
Limits:	37-125	66-123

Analysis Name: 26a Glycols by EPA 8015C
Batch number: 141550013A

	Tetramethylene glycol
7485078	94
7485079	90
7485080	93
7485081	95
Blank	80
LCS	102
MS	92
MSD	96
Limits:	75-116

Analysis Name: 27a Terphenyls by 8015B
Batch number: 141560017A

	n-Triacontane-d62

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1478782
Reported: 07/07/14 at 01:26 PM

Surrogate Quality Control

7485078	105
7485079	104
7485080	97
7485081	92
Blank	102
LCS	106
MS	99
MSD	108
Limits:	19-152

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 14161001

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7485078	69	78	89	89	87	93
7485079	65	72	83	81	81	83
7485080	58	74	74	75	73	83
7485081	63	70	85	85	84	90
Blank	73	77	83	84	83	86
OPR	72	82	86	87	82	83
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7485078	102	72	93	81	82	89
7485079	92	60	79	72	69	76
7485080	81	58	73	69	67	76
7485081	104	62	78	72	72	82
Blank	88	76	81	76	75	83
OPR	88	72	89	79	69	77
Limits:	17-157	24-169	24-185	21-178	26-152	26-123

	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF
7485078	87	89	110	80	82
7485079	74	81	104	67	65
7485080	71	73	101	64	61
7485081	78	82	116	72	72
Blank	79	78	104	66	62
OPR	75	73	104	62	55
Limits:	28-136	29-147	28-143	26-138	17-157

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/2/2014 A-13013

CarrierName: FedEx G-1478782

AirbillNo: 770169300503 S-4785078-82

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20140602-05

Cooler #: 2

Lab: Lancaster

Lab Phone: 717-556-7259

Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
SL-653-SA5C-TR-0.5	6/2/14 10:20	SO	None	2 - 16 oz glass	10 day	X	X			X		X		X	X		X	X		X	X	X			X	X		X	X											
SL-653-SA5C-TR-5.0	6/2/14 10:45	SO	None	2 - 16 oz glass	10 day	X	X			X		X		X	X		X	X		X	X	X			X	X		X	X											
SL-653-SA5C-TR-5.0	6/2/14 10:45	SO	None	2 - Encore	10 day																			X																
SL-653-SA5C-TR-10.0	6/2/14 10:55	SO	None	2 - 16 oz glass	10 day	X	X			X		X		X	X		X	X		X	X	X			X	X		X	X											
SL-653-SA5C-TR-10.0	6/2/14 10:55	SO	None	2 - Encore	10 day																			X																
SL-653-SA5C-TR-15.0	6/2/14 09:20	SO	None	2 - 16 oz glass	10 day	X	X			X		X		X	X		X	X		X	X	X			X	X		X	X											
SL-653-SA5C-TR-15.0	6/2/14 09:20	SO	None	2 - Encore	10 day																			X																
TB4-060214	6/2/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																			X																

Special Instructions: For all EFH, silica gel cleanup required on half of extract. Analyze all extract for EFH.

Sampler: Andrew Pam

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Stephanie Myers	06/02/14	1600									
									[illegible]	6/3/14	0920

Trench Sampling 1 of 1

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 16210

Group Number(s): 1478782

Client: CDM SMITH

SSFL PHASE 3

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	06/03/2014 9:20
Number of Packages:	3	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Corey Eshleman (3647) at 10:15 on 06/03/2014

Samples Chilled Details: SSFL PHASE 3

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT121	1.1	DT	Wet	Y	Bagged	N	N
2	DT121	2.0	DT	Wet	Y	Bagged	N	N
3	DT121	1.4	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 16, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 06/04/2014
Group Number: 1479236
SDG: PH214
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SVL-602-SA5B-SB-4.5-5.0 Soil	7486854
SVL-553-SA5D-SB-4.5-5.5 Soil	7486855
SVL-553-SA5D-SB-9.0-10.0 Soil	7486856
SVL-553-SA5D-SB-14.0-15.0 Soil	7486857
SVL-553-SA5D-SB-19.0-20.0 Soil	7486858
SVL-556-SA5D-SB-4.5-5.5 Soil	7486859
SVL-556-SA5D-SB-10.0-11.0 Soil	7486860
TB1-060314 Water	7486861

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: SVL-602-SA5B-SB-4.5-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7486854
LL Group # 1479236
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/03/2014 09:50 by VV

Submitted: 06/04/2014 09:20
Reported: 06/16/2014 13:20

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

60245 SDG#: PH214-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	22	U	22	8	1.04
10237	Acrolein	107-02-8	110	U	110	22	1.04
10237	Acrylonitrile	107-13-1	22	U	22	4	1.04
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	1.04
10237	Benzene	71-43-2	5	U	5	0.5	1.04
10237	Bromobenzene	108-86-1	5	U	5	1	1.04
10237	Bromochloromethane	74-97-5	5	U	5	1	1.04
10237	Bromodichloromethane	75-27-4	5	U	5	1	1.04
10237	Bromoform	75-25-2	5	U	5	1	1.04
10237	Bromomethane	74-83-9	5	U	5	2	1.04
10237	2-Butanone	78-93-3	11	U	11	4	1.04
10237	t-Butyl alcohol	75-65-0	55	U	55	22	1.04
10237	n-Butylbenzene	104-51-8	5	U	5	1	1.04
10237	sec-Butylbenzene	135-98-8	5	U	5	1	1.04
10237	tert-Butylbenzene	98-06-6	5	U	5	1	1.04
10237	Carbon Disulfide	75-15-0	5	U	5	1	1.04
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	1.04
10237	Chlorobenzene	108-90-7	5	U	5	1	1.04
10237	Chloroethane	75-00-3	5	U	5	2	1.04
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	1.04
10237	Chloroform	67-66-3	5	U	5	1	1.04
10237	1-Chlorohexane	544-10-5	5	U	5	1	1.04
10237	Chloromethane	74-87-3	5	U	5	2	1.04
10237	2-Chlorotoluene	95-49-8	5	U	5	1	1.04
10237	4-Chlorotoluene	106-43-4	5	U	5	1	1.04
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	1.04
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1.04
10237	Dibromochloromethane	124-48-1	5	U	5	1	1.04
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	1.04
10237	Dibromomethane	74-95-3	5	U	5	1	1.04
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1.04
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1.04
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1.04
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	1.04
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	1.04
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	1.04
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	1.04
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	1.04
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	1.04
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	1.04
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	1.04
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	1.04
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	1.04
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	1.04
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	1.04
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	1.04
10237	Ethylbenzene	100-41-4	5	U	5	1	1.04
10237	Freon 113	76-13-1	5	U	5	2	1.04
10237	Freon 133a	75-88-7	5	U	5	2	1.04
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	1.04
10237	2-Hexanone	591-78-6	11	U	11	3	1.04

*=This limit was used in the evaluation of the final result

Sample Description: SVL-602-SA5B-SB-4.5-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7486854
LL Group # 1479236
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/03/2014 09:50 by VV

Submitted: 06/04/2014 09:20
Reported: 06/16/2014 13:20

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

60245 SDG#: PH214-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	1.04
10237	Isopropylbenzene	98-82-8	5	U	5	1	1.04
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	1.04
10237	Methyl Iodide	74-88-4	5	U	5	3	1.04
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1.04
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	1.04
10237	Methylene Chloride	75-09-2	5	U	5	2	1.04
10237	n-Propylbenzene	103-65-1	5	U	5	1	1.04
10237	Styrene	100-42-5	5	U	5	1	1.04
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	1.04
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	1.04
10237	Tetrachloroethene	127-18-4	5	U	5	1	1.04
10237	Toluene	108-88-3	5	U	5	1	1.04
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1.04
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1.04
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	1.04
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	1.04
10237	Trichloroethene	79-01-6	5	U	5	1	1.04
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	1.04
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1.04
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1.04
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1.04
10237	Vinyl Acetate	108-05-4	11	U	11	2	1.04
10237	Vinyl Chloride	75-01-4	5	U	5	1	1.04
10237	m+p-Xylene	179601-23-1	5	U	5	1	1.04
10237	o-Xylene	95-47-6	5	U	5	1	1.04
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	5.2		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141562AA	06/05/2014 22:15	Andrea E Lando	1.04
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201415534705	06/04/2014 16:38	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-602-SA5B-SB-4.5-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7486854
LL Group # 1479236
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/03/2014 09:50 by VV

Submitted: 06/04/2014 09:20
Reported: 06/16/2014 13:20

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

60245 SDG#: PH214-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201415534705	06/04/2014 16:38	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201415534705	06/04/2014 16:23	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14161162401A	06/10/2014 20:31	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-553-SA5D-SB-4.5-5.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7486855
LL Group # 1479236
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/03/2014 12:03 by VV

Submitted: 06/04/2014 09:20
Reported: 06/16/2014 13:20

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55345 SDG#: PH214-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	23	U	23	8	0.99
10237	Acrolein	107-02-8	110	U	110	23	0.99
10237	Acrylonitrile	107-13-1	23	U	23	5	0.99
10237	t-Amyl methyl ether	994-05-8	6	U	6	1	0.99
10237	Benzene	71-43-2	6	U	6	0.6	0.99
10237	Bromobenzene	108-86-1	6	U	6	1	0.99
10237	Bromochloromethane	74-97-5	6	U	6	1	0.99
10237	Bromodichloromethane	75-27-4	6	U	6	1	0.99
10237	Bromoform	75-25-2	6	U	6	1	0.99
10237	Bromomethane	74-83-9	6	U	6	2	0.99
10237	2-Butanone	78-93-3	11	U	11	5	0.99
10237	t-Butyl alcohol	75-65-0	56	U	56	23	0.99
10237	n-Butylbenzene	104-51-8	6	U	6	1	0.99
10237	sec-Butylbenzene	135-98-8	6	U	6	1	0.99
10237	tert-Butylbenzene	98-06-6	6	U	6	1	0.99
10237	Carbon Disulfide	75-15-0	6	U	6	1	0.99
10237	Carbon Tetrachloride	56-23-5	6	U	6	1	0.99
10237	Chlorobenzene	108-90-7	6	U	6	1	0.99
10237	Chloroethane	75-00-3	6	U	6	2	0.99
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	0.99
10237	Chloroform	67-66-3	6	U	6	1	0.99
10237	1-Chlorohexane	544-10-5	6	U	6	1	0.99
10237	Chloromethane	74-87-3	6	U	6	2	0.99
10237	2-Chlorotoluene	95-49-8	6	U	6	1	0.99
10237	4-Chlorotoluene	106-43-4	6	U	6	1	0.99
10237	Chlorotrifluoroethene	79-38-9	6	U	6	2	0.99
10237	1,2-Dibromo-3-chloropropane	96-12-8	6	U	6	2	0.99
10237	Dibromochloromethane	124-48-1	6	U	6	1	0.99
10237	1,2-Dibromoethane	106-93-4	6	U	6	1	0.99
10237	Dibromomethane	74-95-3	6	U	6	1	0.99
10237	1,2-Dichlorobenzene	95-50-1	6	U	6	1	0.99
10237	1,3-Dichlorobenzene	541-73-1	6	U	6	1	0.99
10237	1,4-Dichlorobenzene	106-46-7	6	U	6	1	0.99
10237	Dichlorodifluoromethane	75-71-8	6	U	6	2	0.99
10237	1,1-Dichloroethane	75-34-3	6	U	6	1	0.99
10237	1,2-Dichloroethane	107-06-2	6	U	6	1	0.99
10237	1,1-Dichloroethene	75-35-4	6	U	6	1	0.99
10237	cis-1,2-Dichloroethene	156-59-2	6	U	6	1	0.99
10237	trans-1,2-Dichloroethene	156-60-5	6	U	6	1	0.99
10237	1,2-Dichloropropane	78-87-5	6	U	6	1	0.99
10237	1,3-Dichloropropane	142-28-9	6	U	6	1	0.99
10237	2,2-Dichloropropane	594-20-7	6	U	6	1	0.99
10237	1,1-Dichloropropene	563-58-6	6	U	6	1	0.99
10237	cis-1,3-Dichloropropene	10061-01-5	6	U	6	1	0.99
10237	trans-1,3-Dichloropropene	10061-02-6	6	U	6	1	0.99
10237	Ethyl t-butyl ether	637-92-3	6	U	6	1	0.99
10237	Ethylbenzene	100-41-4	6	U	6	1	0.99
10237	Freon 113	76-13-1	6	U	6	2	0.99
10237	Freon 133a	75-88-7	6	U	6	2	0.99
10237	Hexachlorobutadiene	87-68-3	6	U	6	2	0.99
10237	2-Hexanone	591-78-6	11	U	11	3	0.99

*=This limit was used in the evaluation of the final result

Sample Description: SVL-553-SA5D-SB-4.5-5.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7486855
LL Group # 1479236
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/03/2014 12:03 by VV

Submitted: 06/04/2014 09:20
Reported: 06/16/2014 13:20

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55345 SDG#: PH214-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	6	U	6	1	0.99
10237	Isopropylbenzene	98-82-8	6	U	6	1	0.99
10237	p-Isopropyltoluene	99-87-6	6	U	6	1	0.99
10237	Methyl Iodide	74-88-4	6	U	6	3	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	6	U	6	0.6	0.99
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	0.99
10237	Methylene Chloride	75-09-2	6	U	6	2	0.99
10237	n-Propylbenzene	103-65-1	6	U	6	1	0.99
10237	Styrene	100-42-5	6	U	6	1	0.99
10237	1,1,1,2-Tetrachloroethane	630-20-6	6	U	6	1	0.99
10237	1,1,2,2-Tetrachloroethane	79-34-5	6	U	6	1	0.99
10237	Tetrachloroethene	127-18-4	6	U	6	1	0.99
10237	Toluene	108-88-3	6	U	6	1	0.99
10237	1,2,3-Trichlorobenzene	87-61-6	6	U	6	1	0.99
10237	1,2,4-Trichlorobenzene	120-82-1	6	U	6	1	0.99
10237	1,1,1-Trichloroethane	71-55-6	6	U	6	1	0.99
10237	1,1,2-Trichloroethane	79-00-5	6	U	6	1	0.99
10237	Trichloroethene	79-01-6	6	U	6	1	0.99
10237	Trichlorofluoromethane	75-69-4	6	U	6	2	0.99
10237	1,2,3-Trichloropropane	96-18-4	6	U	6	1	0.99
10237	1,2,4-Trimethylbenzene	95-63-6	6	U	6	1	0.99
10237	1,3,5-Trimethylbenzene	108-67-8	6	U	6	1	0.99
10237	Vinyl Acetate	108-05-4	11	U	11	2	0.99
10237	Vinyl Chloride	75-01-4	6	U	6	1	0.99
10237	m+p-Xylene	179601-23-1	6	U	6	1	0.99
10237	o-Xylene	95-47-6	6	U	6	1	0.99
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	12.0		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141562AA	06/05/2014 22:38	Andrea E Lando	0.99
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201415534705	06/04/2014 16:38	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-553-SA5D-SB-4.5-5.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7486855
LL Group # 1479236
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/03/2014 12:03 by VV

Submitted: 06/04/2014 09:20
Reported: 06/16/2014 13:20

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55345 SDG#: PH214-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201415534705	06/04/2014 16:38	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201415534705	06/04/2014 16:25	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14161162401A	06/10/2014 20:31	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-553-SA5D-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7486856
LL Group # 1479236
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/03/2014 12:11 by VV

Submitted: 06/04/2014 09:20
Reported: 06/16/2014 13:20

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55390 SDG#: PH214-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	Acetone	67-64-1	20	U	20	7	0.86
10237	Acrolein	107-02-8	98	U	98	20	0.86
10237	Acrylonitrile	107-13-1	20	U	20	4	0.86
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.86
10237	Benzene	71-43-2	5	U	5	0.5	0.86
10237	Bromobenzene	108-86-1	5	U	5	1	0.86
10237	Bromochloromethane	74-97-5	5	U	5	1	0.86
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.86
10237	Bromoform	75-25-2	5	U	5	1	0.86
10237	Bromomethane	74-83-9	5	U	5	2	0.86
10237	2-Butanone	78-93-3	10	U	10	4	0.86
10237	t-Butyl alcohol	75-65-0	49	U	49	20	0.86
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.86
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.86
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.86
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.86
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.86
10237	Chlorobenzene	108-90-7	5	U	5	1	0.86
10237	Chloroethane	75-00-3	5	U	5	2	0.86
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.86
10237	Chloroform	67-66-3	5	U	5	1	0.86
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.86
10237	Chloromethane	74-87-3	5	U	5	2	0.86
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.86
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.86
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.86
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.86
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.86
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.86
10237	Dibromomethane	74-95-3	5	U	5	1	0.86
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.86
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.86
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.86
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.86
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.86
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.86
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.86
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.86
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.86
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.86
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.86
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.86
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.86
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.86
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.86
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.86
10237	Ethylbenzene	100-41-4	5	U	5	1	0.86
10237	Freon 113	76-13-1	5	U	5	2	0.86
10237	Freon 133a	75-88-7	5	U	5	2	0.86
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.86
10237	2-Hexanone	591-78-6	10	U	10	3	0.86

*=This limit was used in the evaluation of the final result

Sample Description: SVL-553-SA5D-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7486856
LL Group # 1479236
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/03/2014 12:11 by VV

Submitted: 06/04/2014 09:20
Reported: 06/16/2014 13:20

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55390 SDG#: PH214-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.86
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.86
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.86
10237	Methyl Iodide	74-88-4	5	U	5	3	0.86
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.86
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.86
10237	Methylene Chloride	75-09-2	5	U	5	2	0.86
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.86
10237	Styrene	100-42-5	5	U	5	1	0.86
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.86
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.86
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.86
10237	Toluene	108-88-3	5	U	5	1	0.86
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.86
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.86
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.86
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.86
10237	Trichloroethene	79-01-6	5	U	5	1	0.86
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.86
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.86
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.86
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.86
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.86
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.86
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.86
10237	o-Xylene	95-47-6	5	U	5	1	0.86
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	12.3		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141562AA	06/05/2014 23:00	Andrea E Lando	0.86
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201415534705	06/04/2014 16:38	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-553-SA5D-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7486856
LL Group # 1479236
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/03/2014 12:11 by VV

Submitted: 06/04/2014 09:20
Reported: 06/16/2014 13:20

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55390 SDG#: PH214-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201415534705	06/04/2014 16:38	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201415534705	06/04/2014 16:28	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14161162401A	06/10/2014 20:31	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-553-SA5D-SB-14.0-15.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7486857
LL Group # 1479236
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/03/2014 12:15 by VV

Submitted: 06/04/2014 09:20
Reported: 06/16/2014 13:20

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55314 SDG#: PH214-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	21	U	21	7	0.94
10237	Acrolein	107-02-8	110	U	110	21	0.94
10237	Acrylonitrile	107-13-1	21	U	21	4	0.94
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.94
10237	Benzene	71-43-2	5	U	5	0.5	0.94
10237	Bromobenzene	108-86-1	5	U	5	1	0.94
10237	Bromochloromethane	74-97-5	5	U	5	1	0.94
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.94
10237	Bromoform	75-25-2	5	U	5	1	0.94
10237	Bromomethane	74-83-9	5	U	5	2	0.94
10237	2-Butanone	78-93-3	11	U	11	4	0.94
10237	t-Butyl alcohol	75-65-0	53	U	53	21	0.94
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.94
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.94
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.94
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.94
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.94
10237	Chlorobenzene	108-90-7	5	U	5	1	0.94
10237	Chloroethane	75-00-3	5	U	5	2	0.94
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	0.94
10237	Chloroform	67-66-3	5	U	5	1	0.94
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.94
10237	Chloromethane	74-87-3	5	U	5	2	0.94
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.94
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.94
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.94
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.94
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.94
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.94
10237	Dibromomethane	74-95-3	5	U	5	1	0.94
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.94
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.94
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.94
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.94
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.94
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.94
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.94
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.94
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.94
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.94
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.94
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.94
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.94
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.94
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.94
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.94
10237	Ethylbenzene	100-41-4	5	U	5	1	0.94
10237	Freon 113	76-13-1	5	U	5	2	0.94
10237	Freon 133a	75-88-7	5	U	5	2	0.94
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.94
10237	2-Hexanone	591-78-6	11	U	11	3	0.94

*=This limit was used in the evaluation of the final result

Sample Description: SVL-553-SA5D-SB-14.0-15.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7486857
LL Group # 1479236
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/03/2014 12:15 by VV

Submitted: 06/04/2014 09:20
Reported: 06/16/2014 13:20

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55314 SDG#: PH214-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.94
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.94
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.94
10237	Methyl Iodide	74-88-4	5	U	5	3	0.94
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.94
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	0.94
10237	Methylene Chloride	75-09-2	5	U	5	2	0.94
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.94
10237	Styrene	100-42-5	5	U	5	1	0.94
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.94
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.94
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.94
10237	Toluene	108-88-3	5	U	5	1	0.94
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.94
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.94
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.94
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.94
10237	Trichloroethene	79-01-6	5	U	5	1	0.94
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.94
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.94
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.94
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.94
10237	Vinyl Acetate	108-05-4	11	U	11	2	0.94
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.94
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.94
10237	o-Xylene	95-47-6	5	U	5	1	0.94
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	12.4		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141562AA	06/05/2014 23:23	Andrea E Lando	0.94
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201415534705	06/04/2014 16:37	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-553-SA5D-SB-14.0-15.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7486857
LL Group # 1479236
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/03/2014 12:15 by VV

Submitted: 06/04/2014 09:20
Reported: 06/16/2014 13:20

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55314 SDG#: PH214-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201415534705	06/04/2014 16:37	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201415534705	06/04/2014 16:29	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14161162401A	06/10/2014 20:31	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-553-SA5D-SB-19.0-20.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7486858
LL Group # 1479236
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/03/2014 12:22 by VV

Submitted: 06/04/2014 09:20
Reported: 06/16/2014 13:20

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55319 SDG#: PH214-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	21	U	21	7	0.92
10237	Acrolein	107-02-8	100	U	100	21	0.92
10237	Acrylonitrile	107-13-1	21	U	21	4	0.92
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.92
10237	Benzene	71-43-2	5	U	5	0.5	0.92
10237	Bromobenzene	108-86-1	5	U	5	1	0.92
10237	Bromochloromethane	74-97-5	5	U	5	1	0.92
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.92
10237	Bromoform	75-25-2	5	U	5	1	0.92
10237	Bromomethane	74-83-9	5	U	5	2	0.92
10237	2-Butanone	78-93-3	10	U	10	4	0.92
10237	t-Butyl alcohol	75-65-0	52	U	52	21	0.92
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.92
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.92
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.92
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.92
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.92
10237	Chlorobenzene	108-90-7	5	U	5	1	0.92
10237	Chloroethane	75-00-3	5	U	5	2	0.92
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.92
10237	Chloroform	67-66-3	5	U	5	1	0.92
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.92
10237	Chloromethane	74-87-3	5	U	5	2	0.92
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.92
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.92
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.92
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.92
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.92
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.92
10237	Dibromomethane	74-95-3	5	U	5	1	0.92
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.92
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.92
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.92
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.92
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.92
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.92
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.92
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.92
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.92
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.92
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.92
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.92
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.92
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.92
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.92
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.92
10237	Ethylbenzene	100-41-4	5	U	5	1	0.92
10237	Freon 113	76-13-1	5	U	5	2	0.92
10237	Freon 133a	75-88-7	5	U	5	2	0.92
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.92
10237	2-Hexanone	591-78-6	10	U	10	3	0.92

*=This limit was used in the evaluation of the final result

Sample Description: SVL-553-SA5D-SB-19.0-20.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7486858
LL Group # 1479236
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/03/2014 12:22 by VV

Submitted: 06/04/2014 09:20
Reported: 06/16/2014 13:20

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55319 SDG#: PH214-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.92
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.92
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.92
10237	Methyl Iodide	74-88-4	5	U	5	3	0.92
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.92
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.92
10237	Methylene Chloride	75-09-2	5	U	5	2	0.92
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.92
10237	Styrene	100-42-5	5	U	5	1	0.92
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.92
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.92
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.92
10237	Toluene	108-88-3	5	U	5	1	0.92
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.92
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.92
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.92
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.92
10237	Trichloroethene	79-01-6	5	U	5	1	0.92
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.92
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.92
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.92
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.92
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.92
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.92
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.92
10237	o-Xylene	95-47-6	5	U	5	1	0.92
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	12.2		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141562AA	06/05/2014 23:45	Andrea E Lando	0.92
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201415534705	06/04/2014 16:37	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-553-SA5D-SB-19.0-20.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7486858
LL Group # 1479236
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/03/2014 12:22 by VV

Submitted: 06/04/2014 09:20
Reported: 06/16/2014 13:20

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55319 SDG#: PH214-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201415534705	06/04/2014 16:37	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201415534705	06/04/2014 16:31	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14161162401A	06/10/2014 20:31	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-556-SA5D-SB-4.5-5.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7486859
LL Group # 1479236
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/03/2014 14:00 by VV

Submitted: 06/04/2014 09:20
Reported: 06/16/2014 13:20

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55645 SDG#: PH214-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	21	U	21	7	0.92
10237	Acrolein	107-02-8	100	U	100	21	0.92
10237	Acrylonitrile	107-13-1	21	U	21	4	0.92
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.92
10237	Benzene	71-43-2	5	U	5	0.5	0.92
10237	Bromobenzene	108-86-1	5	U	5	1	0.92
10237	Bromochloromethane	74-97-5	5	U	5	1	0.92
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.92
10237	Bromoform	75-25-2	5	U	5	1	0.92
10237	Bromomethane	74-83-9	5	U	5	2	0.92
10237	2-Butanone	78-93-3	10	U	10	4	0.92
10237	t-Butyl alcohol	75-65-0	52	U	52	21	0.92
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.92
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.92
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.92
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.92
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.92
10237	Chlorobenzene	108-90-7	5	U	5	1	0.92
10237	Chloroethane	75-00-3	5	U	5	2	0.92
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.92
10237	Chloroform	67-66-3	5	U	5	1	0.92
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.92
10237	Chloromethane	74-87-3	5	U	5	2	0.92
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.92
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.92
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.92
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.92
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.92
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.92
10237	Dibromomethane	74-95-3	5	U	5	1	0.92
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.92
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.92
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.92
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.92
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.92
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.92
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.92
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.92
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.92
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.92
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.92
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.92
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.92
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.92
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.92
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.92
10237	Ethylbenzene	100-41-4	5	U	5	1	0.92
10237	Freon 113	76-13-1	5	U	5	2	0.92
10237	Freon 133a	75-88-7	5	U	5	2	0.92
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.92
10237	2-Hexanone	591-78-6	10	U	10	3	0.92

*=This limit was used in the evaluation of the final result

Sample Description: SVL-556-SA5D-SB-4.5-5.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7486859
LL Group # 1479236
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/03/2014 14:00 by VV

Submitted: 06/04/2014 09:20
Reported: 06/16/2014 13:20

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55645 SDG#: PH214-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.92
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.92
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.92
10237	Methyl Iodide	74-88-4	5	U	5	3	0.92
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.92
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.92
10237	Methylene Chloride	75-09-2	5	U	5	2	0.92
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.92
10237	Styrene	100-42-5	5	U	5	1	0.92
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.92
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.92
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.92
10237	Toluene	108-88-3	5	U	5	1	0.92
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.92
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.92
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.92
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.92
10237	Trichloroethene	79-01-6	5	U	5	1	0.92
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.92
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.92
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.92
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.92
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.92
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.92
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.92
10237	o-Xylene	95-47-6	5	U	5	1	0.92
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	10.8		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141562AA	06/06/2014 00:08	Andrea E Lando	0.92
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201415534705	06/04/2014 16:37	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-556-SA5D-SB-4.5-5.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7486859
LL Group # 1479236
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/03/2014 14:00 by VV

Submitted: 06/04/2014 09:20
Reported: 06/16/2014 13:20

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55645 SDG#: PH214-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201415534705	06/04/2014 16:37	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201415534705	06/04/2014 16:33	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14161162401B	06/10/2014 20:31	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-556-SA5D-SB-10.0-11.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7486860
LL Group # 1479236
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/03/2014 14:03 by VV

Submitted: 06/04/2014 09:20
Reported: 06/16/2014 13:20

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55610 SDG#: PH214-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	21	U	21	7	0.9
10237	Acrolein	107-02-8	100	U	100	21	0.9
10237	Acrylonitrile	107-13-1	21	U	21	4	0.9
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.9
10237	Benzene	71-43-2	5	U	5	0.5	0.9
10237	Bromobenzene	108-86-1	5	U	5	1	0.9
10237	Bromochloromethane	74-97-5	5	U	5	1	0.9
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.9
10237	Bromoform	75-25-2	5	U	5	1	0.9
10237	Bromomethane	74-83-9	5	U	5	2	0.9
10237	2-Butanone	78-93-3	10	U	10	4	0.9
10237	t-Butyl alcohol	75-65-0	51	U	51	21	0.9
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.9
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.9
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.9
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.9
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.9
10237	Chlorobenzene	108-90-7	5	U	5	1	0.9
10237	Chloroethane	75-00-3	5	U	5	2	0.9
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.9
10237	Chloroform	67-66-3	5	U	5	1	0.9
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.9
10237	Chloromethane	74-87-3	5	U	5	2	0.9
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.9
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.9
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.9
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.9
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.9
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.9
10237	Dibromomethane	74-95-3	5	U	5	1	0.9
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.9
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.9
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.9
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.9
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.9
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.9
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.9
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.9
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.9
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.9
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.9
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.9
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.9
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.9
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.9
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.9
10237	Ethylbenzene	100-41-4	5	U	5	1	0.9
10237	Freon 113	76-13-1	5	U	5	2	0.9
10237	Freon 133a	75-88-7	5	U	5	2	0.9
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.9
10237	2-Hexanone	591-78-6	10	U	10	3	0.9

*=This limit was used in the evaluation of the final result

Sample Description: SVL-556-SA5D-SB-10.0-11.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7486860
LL Group # 1479236
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/03/2014 14:03 by VV

Submitted: 06/04/2014 09:20
Reported: 06/16/2014 13:20

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55610 SDG#: PH214-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.9
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.9
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.9
10237	Methyl Iodide	74-88-4	5	U	5	3	0.9
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.9
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.9
10237	Methylene Chloride	75-09-2	5	U	5	2	0.9
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.9
10237	Styrene	100-42-5	5	U	5	1	0.9
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.9
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.9
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.9
10237	Toluene	108-88-3	5	U	5	1	0.9
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.9
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.9
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.9
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.9
10237	Trichloroethene	79-01-6	5	U	5	1	0.9
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.9
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.9
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.9
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.9
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.9
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.9
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.9
10237	o-Xylene	95-47-6	5	U	5	1	0.9
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	12.3		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141562AA	06/06/2014 00:30	Andrea E Lando	0.9
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201415534705	06/04/2014 16:37	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-556-SA5D-SB-10.0-11.0 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7486860
LL Group # 1479236
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/03/2014 14:03 by VV

Submitted: 06/04/2014 09:20
Reported: 06/16/2014 13:20

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55610 SDG#: PH214-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201415534705	06/04/2014 16:37	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201415534705	06/04/2014 16:35	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14161162401B	06/10/2014 20:31	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: TB1-060314 Water
SSFL Phase 3 Subarea 5B/5D

LL Sample # WW 7486861
LL Group # 1479236
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/03/2014 08:00

Submitted: 06/04/2014 09:20
Reported: 06/16/2014 13:20

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB163 SDG#: PH214-08TB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	5	U	5	0.5	1
10335	Benzene	71-43-2	5	U	5	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	5	U	5	0.5	1
10335	Bromoform	75-25-2	5	U	5	0.5	1
10335	Bromomethane	74-83-9	5	U	5	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	5	U	5	0.5	1
10335	Chlorobenzene	108-90-7	5	U	5	0.5	1
10335	Chloroethane	75-00-3	5	U	5	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	5	U	5	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	5	U	5	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	5	U	5	0.5	1
10335	1,2-Dibromoethane	106-93-4	5	U	5	0.5	1
10335	Dibromomethane	74-95-3	5	U	5	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	5	U	5	0.5	1
10335	1,1-Dichloroethane	75-34-3	5	U	5	0.5	1
10335	1,2-Dichloroethane	107-06-2	5	U	5	0.5	1
10335	1,1-Dichloroethene	75-35-4	5	U	5	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.5	1
10335	1,2-Dichloropropane	78-87-5	5	U	5	0.5	1
10335	1,3-Dichloropropane	142-28-9	5	U	5	0.5	1
10335	2,2-Dichloropropane	594-20-7	5	U	5	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.5	1
10335	Ethyl t-butyl ether	637-92-3	5	U	5	0.5	1
10335	Ethylbenzene	100-41-4	5	U	5	0.5	1
10335	Freon 113	76-13-1	5	U	5	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: TB1-060314 Water
SSFL Phase 3 Subarea 5B/5D

LL Sample # WW 7486861
LL Group # 1479236
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/03/2014 08:00

Submitted: 06/04/2014 09:20
Reported: 06/16/2014 13:20

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB163 SDG#: PH214-08TB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	5	U	5	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	5	U	5	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	5	U	5	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.5	1
10335	Tetrachloroethene	127-18-4	5	U	5	0.5	1
10335	Toluene	108-88-3	5	U	5	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	5	U	5	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	5	U	5	0.5	1
10335	Trichloroethene	79-01-6	5	U	5	0.5	1
10335	Trichlorofluoromethane	75-69-4	5	U	5	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	5	U	5	0.5	1
10335	m+p-Xylene	179601-23-1	5	U	5	0.5	1
10335	o-Xylene	95-47-6	5	U	5	0.5	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141562AA	06/05/2014 17:15	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141562AA	06/05/2014 17:15	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479236
Reported: 06/16/14 at 01:20 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B141562AA	Sample number(s): 7486854-7486860								
Acetone	20 U	20.	7	ug/kg	99	100	41-149	1	30
Acrolein	100 U	100.	20	ug/kg	81	94	50-137	15	30
Acrylonitrile	20 U	20.	4	ug/kg	96	91	58-123	6	30
t-Amyl methyl ether	5 U	5.	1	ug/kg	97	99	63-130	2	30
Benzene	5 U	5.	0.5	ug/kg	102	100	80-120	2	30
Bromobenzene	5 U	5.	1	ug/kg	104	105	78-120	2	30
Bromochloromethane	5 U	5.	1	ug/kg	105	106	75-129	1	30
Bromodichloromethane	5 U	5.	1	ug/kg	98	97	75-120	0	30
Bromoform	5 U	5.	1	ug/kg	101	102	70-126	1	30
Bromomethane	5 U	5.	2	ug/kg	100	94	32-162	5	30
2-Butanone	10 U	10.	4	ug/kg	92	93	47-136	1	30
t-Butyl alcohol	50 U	50.	20	ug/kg	100	107	66-133	6	30
n-Butylbenzene	5 U	5.	1	ug/kg	99	99	72-120	0	30
sec-Butylbenzene	5 U	5.	1	ug/kg	104	101	69-120	3	30
tert-Butylbenzene	5 U	5.	1	ug/kg	99	99	75-120	0	30
Carbon Disulfide	5 U	5.	1	ug/kg	104	96	63-128	8	30
Carbon Tetrachloride	5 U	5.	1	ug/kg	104	102	69-130	2	30
Chlorobenzene	5 U	5.	1	ug/kg	102	105	80-120	3	30
Chloroethane	5 U	5.	2	ug/kg	95	89	17-171	6	30
2-Chloroethyl Vinyl Ether	10 U	10.	2	ug/kg	83	85	52-134	3	30
Chloroform	5 U	5.	1	ug/kg	103	104	80-120	0	30
1-Chlorohexane	5 U	5.	1	ug/kg	93	92	70-130	1	30
Chloromethane	5 U	5.	2	ug/kg	93	90	56-120	3	30
2-Chlorotoluene	5 U	5.	1	ug/kg	103	104	78-120	0	30
4-Chlorotoluene	5 U	5.	1	ug/kg	101	105	79-120	3	30
Chlorotrifluoroethene	5 U	5.	2	ug/kg	81	79	22-131	2	30
1,2-Dibromo-3-chloropropane	5 U	5.	2	ug/kg	93	97	50-132	4	30
Dibromochloromethane	5 U	5.	1	ug/kg	103	106	77-120	3	30
1,2-Dibromoethane	5 U	5.	1	ug/kg	104	104	80-120	0	30
Dibromomethane	5 U	5.	1	ug/kg	99	100	75-120	0	30
1,2-Dichlorobenzene	5 U	5.	1	ug/kg	104	103	80-120	1	30
1,3-Dichlorobenzene	5 U	5.	1	ug/kg	105	104	80-120	1	30
1,4-Dichlorobenzene	5 U	5.	1	ug/kg	103	103	80-120	0	30
Dichlorodifluoromethane	5 U	5.	2	ug/kg	101	99	26-137	3	30
1,1-Dichloroethane	5 U	5.	1	ug/kg	99	98	71-122	1	30
1,2-Dichloroethane	5 U	5.	1	ug/kg	106	108	66-136	2	30
1,1-Dichloroethene	5 U	5.	1	ug/kg	111	102	73-129	8	30
cis-1,2-Dichloroethene	5 U	5.	1	ug/kg	104	104	80-120	0	30
trans-1,2-Dichloroethene	5 U	5.	1	ug/kg	111	103	79-120	8	30
1,2-Dichloropropane	5 U	5.	1	ug/kg	98	98	77-120	0	30
1,3-Dichloropropane	5 U	5.	1	ug/kg	101	101	73-120	0	30
2,2-Dichloropropane	5 U	5.	1	ug/kg	101	99	72-123	2	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479236
Reported: 06/16/14 at 01:20 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/kg	103	104	77-120	1	30
cis-1,3-Dichloropropene	5	U	5.	1	ug/kg	96	96	74-120	0	30
trans-1,3-Dichloropropene	5	U	5.	1	ug/kg	101	100	69-120	0	30
Ethyl t-butyl ether	5	U	5.	1	ug/kg	95	98	59-134	3	30
Ethylbenzene	5	U	5.	1	ug/kg	104	103	80-120	2	30
Freon 113	5	U	5.	2	ug/kg	102	95	64-137	7	30
Freon 133a	5	U	5.	2	ug/kg	96	99	78-120	3	30
Hexachlorobutadiene	5	U	5.	2	ug/kg	96	100	46-130	5	30
2-Hexanone	10	U	10.	3	ug/kg	90	91	40-129	1	30
di-Isopropyl ether	5	U	5.	1	ug/kg	98	99	68-128	1	30
Isopropylbenzene	5	U	5.	1	ug/kg	105	103	76-120	1	30
p-Isopropyltoluene	5	U	5.	1	ug/kg	98	101	69-120	3	30
Methyl Iodide	5	U	5.	3	ug/kg	110	105	72-130	5	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/kg	104	101	69-126	2	30
4-Methyl-2-pentanone	10	U	10.	3	ug/kg	92	93	43-133	1	30
Methylene Chloride	5	U	5.	2	ug/kg	115	103	80-124	11	30
n-Propylbenzene	5	U	5.	1	ug/kg	103	105	77-120	1	30
Styrene	5	U	5.	1	ug/kg	105	104	76-120	1	30
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/kg	105	106	80-120	0	30
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/kg	98	102	71-123	4	30
Tetrachloroethene	5	U	5.	1	ug/kg	117	119	78-120	2	30
Toluene	5	U	5.	1	ug/kg	104	104	80-120	0	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/kg	98	99	64-120	1	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/kg	99	99	68-120	0	30
1,1,1-Trichloroethane	5	U	5.	1	ug/kg	103	100	63-135	3	30
1,1,2-Trichloroethane	5	U	5.	1	ug/kg	101	104	80-120	3	30
Trichloroethene	5	U	5.	1	ug/kg	103	105	80-120	1	30
Trichlorofluoromethane	5	U	5.	2	ug/kg	96	93	58-133	3	30
1,2,3-Trichloropropane	5	U	5.	1	ug/kg	105	110	71-123	5	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/kg	104	105	79-120	1	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/kg	104	105	78-120	1	30
Vinyl Acetate	10	U	10.	2	ug/kg	113	116	40-127	2	30
Vinyl Chloride	5	U	5.	1	ug/kg	97	93	59-120	4	30
m+p-Xylene	5	U	5.	1	ug/kg	105	103	80-120	2	30
o-Xylene	5	U	5.	1	ug/kg	104	103	80-120	0	30
Batch number: Y141562AA	Sample number(s): 7486861									
Acetone	20	U	20.	6	ug/l	92	91	43-149	1	30
Acrolein	100 U		100.	40	ug/l	79	78	52-129	2	30
Acrylonitrile	20	U	20.	4	ug/l	95	92	62-120	3	30
t-Amyl methyl ether	5	U	5.	0.5	ug/l	93	93	75-120	0	30
Benzene	5	U	5.	0.5	ug/l	96	96	78-120	1	30
Bromobenzene	5	U	5.	1	ug/l	98	98	80-120	0	30
Bromochloromethane	5	U	5.	1	ug/l	101	97	80-121	4	30
Bromodichloromethane	5	U	5.	0.5	ug/l	94	93	73-120	1	30
Bromoform	5	U	5.	0.5	ug/l	90	90	61-120	0	30
Bromomethane	5	U	5.	0.5	ug/l	106	105	58-120	1	30
2-Butanone	10	U	10.	3	ug/l	87	86	54-133	0	30
t-Butyl alcohol	50	U	50.	5	ug/l	98	98	75-120	0	30
n-Butylbenzene	5	U	5.	1	ug/l	90	90	68-120	0	30
sec-Butylbenzene	5	U	5.	1	ug/l	94	94	80-120	0	30
tert-Butylbenzene	5	U	5.	1	ug/l	96	94	73-120	1	30
Carbon Disulfide	5	U	5.	1	ug/l	95	92	58-126	3	30
Carbon Tetrachloride	5	U	5.	0.5	ug/l	105	104	74-130	1	30
Chlorobenzene	5	U	5.	0.5	ug/l	97	97	80-120	0	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479236
Reported: 06/16/14 at 01:20 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroethane	5	U	5.	0.5	ug/l	97	93	56-120	4	30
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/l	106	105	54-126	2	30
Chloroform	5	U	5.	0.5	ug/l	101	98	80-122	3	30
1-Chlorohexane	5	U	5.	1	ug/l	94	96	80-120	2	30
Chloromethane	5	U	5.	0.5	ug/l	107	107	63-120	0	30
2-Chlorotoluene	5	U	5.	1	ug/l	95	94	80-120	1	30
4-Chlorotoluene	5	U	5.	1	ug/l	94	94	80-120	1	30
Chlorotrifluoroethene	5	U	5.	2	ug/l	66	67	47-120	1	30
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/l	87	87	56-120	0	30
Dibromochloromethane	5	U	5.	0.5	ug/l	97	96	72-120	1	30
1,2-Dibromoethane	5	U	5.	0.5	ug/l	100	100	76-120	0	30
Dibromomethane	5	U	5.	0.5	ug/l	96	94	80-120	2	30
1,2-Dichlorobenzene	5	U	5.	1	ug/l	96	95	80-120	1	30
1,3-Dichlorobenzene	5	U	5.	1	ug/l	96	96	80-120	0	30
1,4-Dichlorobenzene	5	U	5.	1	ug/l	96	96	80-120	1	30
Dichlorodifluoromethane	5	U	5.	0.5	ug/l	110	107	48-132	3	30
1,1-Dichloroethane	5	U	5.	0.5	ug/l	94	93	80-120	2	30
1,2-Dichloroethane	5	U	5.	0.5	ug/l	102	101	65-135	1	30
1,1-Dichloroethene	5	U	5.	0.5	ug/l	111	110	76-124	1	30
cis-1,2-Dichloroethene	5	U	5.	0.5	ug/l	99	97	80-120	3	30
trans-1,2-Dichloroethene	5	U	5.	0.5	ug/l	114	113	80-120	2	30
1,2-Dichloropropane	5	U	5.	0.5	ug/l	93	92	80-120	1	30
1,3-Dichloropropane	5	U	5.	0.5	ug/l	92	92	80-120	1	30
2,2-Dichloropropane	5	U	5.	0.5	ug/l	98	97	67-124	2	30
1,1-Dichloropropene	5	U	5.	1	ug/l	101	101	80-120	1	30
cis-1,3-Dichloropropene	5	U	5.	0.5	ug/l	92	91	80-120	1	30
trans-1,3-Dichloropropene	5	U	5.	0.5	ug/l	92	91	76-120	1	30
Ethyl t-butyl ether	5	U	5.	0.5	ug/l	94	93	74-120	1	30
Ethylbenzene	5	U	5.	0.5	ug/l	95	95	79-120	1	30
Freon 113	5	U	5.	2	ug/l	99	98	67-127	0	30
Freon 133a	5	U	5.	2	ug/l	106	106	46-152	0	30
Hexachlorobutadiene	5	U	5.	2	ug/l	90	91	51-125	1	30
2-Hexanone	10	U	10.	3	ug/l	86	86	44-126	0	30
di-Isopropyl ether	5	U	5.	0.5	ug/l	93	94	65-120	0	30
Isopropylbenzene	5	U	5.	1	ug/l	97	97	77-120	0	30
p-Isopropyltoluene	5	U	5.	1	ug/l	93	93	80-120	1	30
Methyl Iodide	5	U	5.	0.5	ug/l	110	108	75-128	2	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/l	106	105	75-120	1	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	88	87	51-124	1	30
Methylene Chloride	5	U	5.	2	ug/l	109	108	80-120	1	30
n-Propylbenzene	5	U	5.	1	ug/l	94	94	80-120	1	30
Styrene	5	U	5.	1	ug/l	96	96	80-120	0	30
1,1,1,2-Tetrachloroethane	5	U	5.	0.5	ug/l	99	99	80-120	0	30
1,1,2,2-Tetrachloroethane	5	U	5.	0.5	ug/l	89	88	70-120	1	30
Tetrachloroethene	5	U	5.	0.5	ug/l	103	100	80-120	2	30
Toluene	5	U	5.	0.5	ug/l	96	97	80-120	1	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	91	91	58-126	0	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	94	94	65-120	0	30
1,1,1-Trichloroethane	5	U	5.	0.5	ug/l	90	88	66-126	2	30
1,1,2-Trichloroethane	5	U	5.	0.5	ug/l	95	94	80-120	0	30
Trichloroethene	5	U	5.	0.5	ug/l	101	99	80-120	2	30
Trichlorofluoromethane	5	U	5.	0.5	ug/l	107	103	65-130	3	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	93	95	76-120	2	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	96	96	74-120	0	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	97	96	74-120	1	30
Vinyl Acetate	10	U	10.	2	ug/l	69	68	56-135	1	30

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(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479236
Reported: 06/16/14 at 01:20 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vinyl Chloride	5	U	5.	0.5	ug/l	106	105	63-120	1	30
m+p-Xylene	5	U	5.	0.5	ug/l	96	95	80-120	1	30
o-Xylene	5	U	5.	0.5	ug/l	96	95	80-120	1	30
Batch number: 14161162401A	Sample number(s): 7486854-7486858									
14a Moisture Content by 160.3						100		80-120		
Batch number: 14161162401B	Sample number(s): 7486859-7486860									
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14161162401A	Sample number(s): 7486854-7486858					BKG: 7486854			
14a Moisture Content by 160.3						5.2	4.9	6	20
Batch number: 14161162401B	Sample number(s): 7486859-7486860					BKG: 7486859			
14a Moisture Content by 160.3						10.8	11.3	4	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12a Volatile Organics EPA8260B
Batch number: B141562AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7486854	102	97	98	94
7486855	106	104	98	95
7486856	103	101	100	94
7486857	103	96	99	92
7486858	105	100	101	89
7486859	104	98	99	89
7486860	104	100	99	92
Blank	102	104	100	95
LCS	102	104	104	100
LCSD	101	100	103	101
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141562AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7486861	101	100	97	94

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479236
Reported: 06/16/14 at 01:20 PM

Surrogate Quality Control

Blank	100	98	97	95
LCS	100	98	97	98
LCSD	99	100	98	99
Limits:	86-118	80-120	88-110	86-115

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ.
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SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/3/2014
CarrierName: FedEx
AirbillNo: 770183423794

A-13013
G-1479236
S-7486854-61

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140603-01
Cooler #: 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate Confirm 6850/6860	Perchlorate 314.0/331	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
SVL-602-SA5B-SB-4.5-5.0	6/3/14 09:50	SO	None	3 - Encore	10 day																		X																		
SVL-602-SA5B-SB-4.5-5.0	6/3/14 09:50	SO	None	1 - 4 oz glass	10 day																		X																		soil moisture
SVL-553-SA5D-SB-4.5-5.5	6/3/14 12:03	SO	None	3 - Encore	10 day																		X																		
SVL-553-SA5D-SB-4.5-5.5	6/3/14 12:03	SO	None	1 - 4 oz glass	10 day																		X																		soil moisture
SVL-553-SA5D-SB-9.0-10.0	6/3/14 12:11	SO	None	3 - Encore	10 day																		X																		
SVL-553-SA5D-SB-9.0-10.0	6/3/14 12:11	SO	None	1 - 4 oz glass	10 day																		X																		soil moisture
SVL-553-SA5D-SB-14.0-15.0	6/3/14 12:15	SO	None	3 - Encore	10 day																		X																		
SVL-553-SA5D-SB-14.0-15.0	6/3/14 12:15	SO	None	1 - 4 oz glass	10 day																		X																		soil moisture
SVL-553-SA5D-SB-19.0-20.0	6/3/14 12:22	SO	None	3 - Encore	10 day																		X																		
SVL-553-SA5D-SB-19.0-20.0	6/3/14 12:22	SO	None	1 - 4 oz glass	10 day																		X																		soil moisture
SVL-556-SA5D-SB-4.5-5.5	6/3/14 14:00	SO	None	3 - Encore	10 day																		X																		
SVL-556-SA5D-SB-4.5-5.5	6/3/14 14:00	SO	None	1 - 4 oz glass	10 day																		X																		soil moisture
SVL-556-SA5D-SB-10.0-11.0	6/3/14 14:03	SO	None	3 - Encore	10 day																		X																		
SVL-556-SA5D-SB-10.0-11.0	6/3/14 14:03	SO	None	1 - 4 oz glass	10 day																		X																		soil moisture
TB1-060314	6/3/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																		X																		

Special Instructions:

Sampler: Van Vatten

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Stephanie Lupe	06/03/14	1600									
										6/4/14	0920

COC Rev 4

Soil Vapor Sampling 1 of 1

Client: CDM Smith

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	06/04/2014 9:20
Number of Packages:	2	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	3
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	N/A		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Joseph Gruber (5200) at 11:02 on 06/04/2014

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	8013596-IR	2.7	IR	Wet	Y	Bagged	N	N
2	DT131	2.3	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

eurofins | Lancaster Laboratories Environmental

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 16, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 06/05/2014
Group Number: 1479554
SDG: PH216
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB3-060414 Water	7488097
SVL-577-SA5B-SB-5.3-5.8 Soil	7488098
SVL-586-SA5B-SB-3.75-4.25 Soil	7488099
SVL-586-SA5B-SB-3.75-4.25MS Soil	7488100
SVL-586-SA5B-SB-3.75-4.25MSD Soil	7488101
SVL-986-SA5B-SB-3.75-4.25 Soil	7488102
SVL-576-SA5A-SB-2.5-3.0 Soil	7488103
SVL-571-SA5A-SB-2.5-3.0 Soil	7488104
SVL-574-SA5A-SB-1.5-2.0 Soil	7488105
SVL-566-SA5A-SB-3.0-3.5 Soil	7488106
EB1-060414 Water	7488107
EB2-060414 Water	7488108
EB4-060414 Water	7488109
EB5-060414 Water	7488110

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: TB3-060414 Water
SSFL Phase 3 Subarea 5B/5A

LL Sample # WW 7488097
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 08:00

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

--TB3 SDG#: PH216-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	5	U	5	0.5	1
10335	Benzene	71-43-2	5	U	5	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	5	U	5	0.5	1
10335	Bromoform	75-25-2	5	U	5	0.5	1
10335	Bromomethane	74-83-9	5	U	5	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	5	U	5	0.5	1
10335	Chlorobenzene	108-90-7	5	U	5	0.5	1
10335	Chloroethane	75-00-3	5	U	5	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	5	U	5	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	5	U	5	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	5	U	5	0.5	1
10335	1,2-Dibromoethane	106-93-4	5	U	5	0.5	1
10335	Dibromomethane	74-95-3	5	U	5	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	5	U	5	0.5	1
10335	1,1-Dichloroethane	75-34-3	5	U	5	0.5	1
10335	1,2-Dichloroethane	107-06-2	5	U	5	0.5	1
10335	1,1-Dichloroethene	75-35-4	5	U	5	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.5	1
10335	1,2-Dichloropropane	78-87-5	5	U	5	0.5	1
10335	1,3-Dichloropropane	142-28-9	5	U	5	0.5	1
10335	2,2-Dichloropropane	594-20-7	5	U	5	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.5	1
10335	Ethyl t-butyl ether	637-92-3	5	U	5	0.5	1
10335	Ethylbenzene	100-41-4	5	U	5	0.5	1
10335	Freon 113	76-13-1	5	U	5	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: TB3-060414 Water
SSFL Phase 3 Subarea 5B/5A

LL Sample # WW 7488097
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 08:00

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

--TB3 SDG#: PH216-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	5	U	5	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	5	U	5	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	5	U	5	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.5	1
10335	Tetrachloroethene	127-18-4	5	U	5	0.5	1
10335	Toluene	108-88-3	5	U	5	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	5	U	5	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	5	U	5	0.5	1
10335	Trichloroethene	79-01-6	5	U	5	0.5	1
10335	Trichlorofluoromethane	75-69-4	5	U	5	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	5	U	5	0.5	1
10335	m+p-Xylene	179601-23-1	5	U	5	0.5	1
10335	o-Xylene	95-47-6	5	U	5	0.5	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141562AA	06/05/2014 17:37	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141562AA	06/05/2014 17:37	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-577-SA5B-SB-5.3-5.8 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7488098
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 08:40 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57753 SDG#: PH216-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	19	U	19	7	0.86
10237	Acrolein	107-02-8	94	U	94	19	0.86
10237	Acrylonitrile	107-13-1	19	U	19	4	0.86
10237	t-Amyl methyl ether	994-05-8	5	U	5	0.9	0.86
10237	Benzene	71-43-2	5	U	5	0.5	0.86
10237	Bromobenzene	108-86-1	5	U	5	0.9	0.86
10237	Bromochloromethane	74-97-5	5	U	5	0.9	0.86
10237	Bromodichloromethane	75-27-4	5	U	5	0.9	0.86
10237	Bromoform	75-25-2	5	U	5	0.9	0.86
10237	Bromomethane	74-83-9	5	U	5	2	0.86
10237	2-Butanone	78-93-3	9	U	9	4	0.86
10237	t-Butyl alcohol	75-65-0	47	U	47	19	0.86
10237	n-Butylbenzene	104-51-8	5	U	5	0.9	0.86
10237	sec-Butylbenzene	135-98-8	5	U	5	0.9	0.86
10237	tert-Butylbenzene	98-06-6	5	U	5	0.9	0.86
10237	Carbon Disulfide	75-15-0	5	U	5	0.9	0.86
10237	Carbon Tetrachloride	56-23-5	5	U	5	0.9	0.86
10237	Chlorobenzene	108-90-7	5	U	5	0.9	0.86
10237	Chloroethane	75-00-3	5	U	5	2	0.86
10237	2-Chloroethyl Vinyl Ether	110-75-8	9	U	9	2	0.86
10237	Chloroform	67-66-3	5	U	5	0.9	0.86
10237	1-Chlorohexane	544-10-5	5	U	5	0.9	0.86
10237	Chloromethane	74-87-3	5	U	5	2	0.86
10237	2-Chlorotoluene	95-49-8	5	U	5	0.9	0.86
10237	4-Chlorotoluene	106-43-4	5	U	5	0.9	0.86
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.86
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.86
10237	Dibromochloromethane	124-48-1	5	U	5	0.9	0.86
10237	1,2-Dibromoethane	106-93-4	5	U	5	0.9	0.86
10237	Dibromomethane	74-95-3	5	U	5	0.9	0.86
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	0.9	0.86
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	0.9	0.86
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	0.9	0.86
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.86
10237	1,1-Dichloroethane	75-34-3	5	U	5	0.9	0.86
10237	1,2-Dichloroethane	107-06-2	5	U	5	0.9	0.86
10237	1,1-Dichloroethene	75-35-4	5	U	5	0.9	0.86
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.9	0.86
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.9	0.86
10237	1,2-Dichloropropane	78-87-5	5	U	5	0.9	0.86
10237	1,3-Dichloropropane	142-28-9	5	U	5	0.9	0.86
10237	2,2-Dichloropropane	594-20-7	5	U	5	0.9	0.86
10237	1,1-Dichloropropene	563-58-6	5	U	5	0.9	0.86
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.9	0.86
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.9	0.86
10237	Ethyl t-butyl ether	637-92-3	5	U	5	0.9	0.86
10237	Ethylbenzene	100-41-4	5	U	5	0.9	0.86
10237	Freon 113	76-13-1	5	U	5	2	0.86
10237	Freon 133a	75-88-7	5	U	5	2	0.86
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.86
10237	2-Hexanone	591-78-6	9	U	9	3	0.86

*=This limit was used in the evaluation of the final result

Sample Description: SVL-577-SA5B-SB-5.3-5.8 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7488098
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 08:40 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57753 SDG#: PH216-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	0.9	0.86
10237	Isopropylbenzene	98-82-8	5	U	5	0.9	0.86
10237	p-Isopropyltoluene	99-87-6	5	U	5	0.9	0.86
10237	Methyl Iodide	74-88-4	5	U	5	3	0.86
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.86
10237	4-Methyl-2-pentanone	108-10-1	9	U	9	3	0.86
10237	Methylene Chloride	75-09-2	5	U	5	2	0.86
10237	n-Propylbenzene	103-65-1	5	U	5	0.9	0.86
10237	Styrene	100-42-5	5	U	5	0.9	0.86
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.9	0.86
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.9	0.86
10237	Tetrachloroethene	127-18-4	5	U	5	0.9	0.86
10237	Toluene	108-88-3	5	U	5	0.9	0.86
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	0.9	0.86
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	0.9	0.86
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	0.9	0.86
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	0.9	0.86
10237	Trichloroethene	79-01-6	5	U	5	0.9	0.86
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.86
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	0.9	0.86
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	0.9	0.86
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	0.9	0.86
10237	Vinyl Acetate	108-05-4	9	U	9	2	0.86
10237	Vinyl Chloride	75-01-4	5	U	5	0.9	0.86
10237	m+p-Xylene	179601-23-1	5	U	5	0.9	0.86
10237	o-Xylene	95-47-6	5	U	5	0.9	0.86
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	8.4		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141612AA	06/10/2014 18:27	Chelsea B Stong	0.86
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201415634714	06/05/2014 15:22	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-577-SA5B-SB-5.3-5.8 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7488098
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 08:40 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57753 SDG#: PH216-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201415634714	06/05/2014 15:22	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201415634714	06/05/2014 14:59	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14162162401A	06/11/2014 20:09	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-586-SA5B-SB-3.75-4.25 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7488099
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 09:00 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58637 SDG#: PH216-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	22	U	22	8	1.03
10237	Acrolein	107-02-8	110	U	110	22	1.03
10237	Acrylonitrile	107-13-1	22	U	22	4	1.03
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	1.03
10237	Benzene	71-43-2	5	U	5	0.5	1.03
10237	Bromobenzene	108-86-1	5	U	5	1	1.03
10237	Bromochloromethane	74-97-5	5	U	5	1	1.03
10237	Bromodichloromethane	75-27-4	5	U	5	1	1.03
10237	Bromoform	75-25-2	5	U	5	1	1.03
10237	Bromomethane	74-83-9	5	U	5	2	1.03
10237	2-Butanone	78-93-3	11	U	11	4	1.03
10237	t-Butyl alcohol	75-65-0	54	U	54	22	1.03
10237	n-Butylbenzene	104-51-8	5	U	5	1	1.03
10237	sec-Butylbenzene	135-98-8	5	U	5	1	1.03
10237	tert-Butylbenzene	98-06-6	5	U	5	1	1.03
10237	Carbon Disulfide	75-15-0	5	U	5	1	1.03
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	1.03
10237	Chlorobenzene	108-90-7	5	U	5	1	1.03
10237	Chloroethane	75-00-3	5	U	5	2	1.03
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	1.03
10237	Chloroform	67-66-3	5	U	5	1	1.03
10237	1-Chlorohexane	544-10-5	5	U	5	1	1.03
10237	Chloromethane	74-87-3	5	U	5	2	1.03
10237	2-Chlorotoluene	95-49-8	5	U	5	1	1.03
10237	4-Chlorotoluene	106-43-4	5	U	5	1	1.03
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	1.03
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1.03
10237	Dibromochloromethane	124-48-1	5	U	5	1	1.03
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	1.03
10237	Dibromomethane	74-95-3	5	U	5	1	1.03
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1.03
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1.03
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1.03
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	1.03
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	1.03
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	1.03
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	1.03
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	1.03
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	1.03
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	1.03
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	1.03
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	1.03
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	1.03
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	1.03
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	1.03
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	1.03
10237	Ethylbenzene	100-41-4	5	U	5	1	1.03
10237	Freon 113	76-13-1	5	U	5	2	1.03
10237	Freon 133a	75-88-7	5	U	5	2	1.03
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	1.03
10237	2-Hexanone	591-78-6	11	U	11	3	1.03

*=This limit was used in the evaluation of the final result

Sample Description: SVL-586-SA5B-SB-3.75-4.25 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7488099
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 09:00 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58637 SDG#: PH216-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	1.03
10237	Isopropylbenzene	98-82-8	5	U	5	1	1.03
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	1.03
10237	Methyl Iodide	74-88-4	5	U	5	3	1.03
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1.03
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	1.03
10237	Methylene Chloride	75-09-2	5	U	5	2	1.03
10237	n-Propylbenzene	103-65-1	5	U	5	1	1.03
10237	Styrene	100-42-5	5	U	5	1	1.03
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	1.03
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	1.03
10237	Tetrachloroethene	127-18-4	5	U	5	1	1.03
10237	Toluene	108-88-3	5	U	5	1	1.03
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1.03
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1.03
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	1.03
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	1.03
10237	Trichloroethene	79-01-6	5	U	5	1	1.03
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	1.03
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1.03
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1.03
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1.03
10237	Vinyl Acetate	108-05-4	11	U	11	2	1.03
10237	Vinyl Chloride	75-01-4	5	U	5	1	1.03
10237	m+p-Xylene	179601-23-1	5	U	5	1	1.03
10237	o-Xylene	95-47-6	5	U	5	1	1.03
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	4.6		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141612AA	06/10/2014 18:50	Chelsea B Stong	1.03
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201415634714	06/05/2014 15:22	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-586-SA5B-SB-3.75-4.25 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7488099
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 09:00 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58637 SDG#: PH216-03BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201415634714	06/05/2014 15:22	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201415634714	06/05/2014 15:01	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14162162401A	06/11/2014 20:09	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-586-SA5B-SB-3.75-4.25MS Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7488100
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 09:00 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58637 SDG#: PH216-03MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg	ug/kg	ug/kg	
10237	Acetone	67-64-1	140	22	8	1.04
10237	Acrolein	107-02-8	140	110	22	1.04
10237	Acrylonitrile	107-13-1	95	22	4	1.04
10237	t-Amyl methyl ether	994-05-8	20	5	1	1.04
10237	Benzene	71-43-2	23	5	0.5	1.04
10237	Bromobenzene	108-86-1	22	5	1	1.04
10237	Bromochloromethane	74-97-5	27	5	1	1.04
10237	Bromodichloromethane	75-27-4	21	5	1	1.04
10237	Bromoform	75-25-2	20	5	1	1.04
10237	Bromomethane	74-83-9	24	5	2	1.04
10237	2-Butanone	78-93-3	130	11	4	1.04
10237	t-Butyl alcohol	75-65-0	270	54	22	1.04
10237	n-Butylbenzene	104-51-8	21	5	1	1.04
10237	sec-Butylbenzene	135-98-8	23	5	1	1.04
10237	tert-Butylbenzene	98-06-6	23	5	1	1.04
10237	Carbon Disulfide	75-15-0	24	5	1	1.04
10237	Carbon Tetrachloride	56-23-5	25	5	1	1.04
10237	Chlorobenzene	108-90-7	23	5	1	1.04
10237	Chloroethane	75-00-3	23	5	2	1.04
10237	2-Chloroethyl Vinyl Ether	110-75-8	15	11	2	1.04
10237	Chloroform	67-66-3	23	5	1	1.04
10237	1-Chlorohexane	544-10-5	21	5	1	1.04
10237	Chloromethane	74-87-3	24	5	2	1.04
10237	2-Chlorotoluene	95-49-8	23	5	1	1.04
10237	4-Chlorotoluene	106-43-4	23	5	1	1.04
10237	Chlorotrifluoroethene	79-38-9	20	6	2	1.06
10237	1,2-Dibromo-3-chloropropane	96-12-8	19	5	2	1.04
10237	Dibromochloromethane	124-48-1	23	5	1	1.04
10237	1,2-Dibromoethane	106-93-4	22	5	1	1.04
10237	Dibromomethane	74-95-3	20	5	1	1.04
10237	1,2-Dichlorobenzene	95-50-1	21	5	1	1.04
10237	1,3-Dichlorobenzene	541-73-1	22	5	1	1.04
10237	1,4-Dichlorobenzene	106-46-7	22	5	1	1.04
10237	Dichlorodifluoromethane	75-71-8	27	5	2	1.04
10237	1,1-Dichloroethane	75-34-3	22	5	1	1.04
10237	1,2-Dichloroethane	107-06-2	22	5	1	1.04
10237	1,1-Dichloroethene	75-35-4	26	5	1	1.04
10237	cis-1,2-Dichloroethene	156-59-2	23	5	1	1.04
10237	trans-1,2-Dichloroethene	156-60-5	26	5	1	1.04
10237	1,2-Dichloropropane	78-87-5	21	5	1	1.04
10237	1,3-Dichloropropane	142-28-9	21	5	1	1.04
10237	2,2-Dichloropropane	594-20-7	24	5	1	1.04
10237	1,1-Dichloropropene	563-58-6	25	5	1	1.04
10237	cis-1,3-Dichloropropene	10061-01-5	20	5	1	1.04
10237	trans-1,3-Dichloropropene	10061-02-6	22	5	1	1.04
10237	Ethyl t-butyl ether	637-92-3	21	5	1	1.04
10237	Ethylbenzene	100-41-4	24	5	1	1.04
10237	Freon 113	76-13-1	25	5	2	1.04
10237	Freon 133a	75-88-7	25	6	2	1.06
10237	Hexachlorobutadiene	87-68-3	20	5	2	1.04
10237	2-Hexanone	591-78-6	87	11	3	1.04

*=This limit was used in the evaluation of the final result

Sample Description: SVL-586-SA5B-SB-3.75-4.25MS Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7488100
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 09:00 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58637 SDG#: PH216-03MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg	ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	21	5	1	1.04
10237	Isopropylbenzene	98-82-8	23	5	1	1.04
10237	p-Isopropyltoluene	99-87-6	22	5	1	1.04
10237	Methyl Iodide	74-88-4	25	5	3	1.04
10237	Methyl Tertiary Butyl Ether	1634-04-4	21	5	0.5	1.04
10237	4-Methyl-2-pentanone	108-10-1	87	11	3	1.04
10237	Methylene Chloride	75-09-2	24	5	2	1.04
10237	n-Propylbenzene	103-65-1	23	5	1	1.04
10237	Styrene	100-42-5	23	5	1	1.04
10237	1,1,1,2-Tetrachloroethane	630-20-6	23	5	1	1.04
10237	1,1,2,2-Tetrachloroethane	79-34-5	20	5	1	1.04
10237	Tetrachloroethene	127-18-4	24	5	1	1.04
10237	Toluene	108-88-3	24	5	1	1.04
10237	1,2,3-Trichlorobenzene	87-61-6	17	5	1	1.04
10237	1,2,4-Trichlorobenzene	120-82-1	18	5	1	1.04
10237	1,1,1-Trichloroethane	71-55-6	23	5	1	1.04
10237	1,1,2-Trichloroethane	79-00-5	22	5	1	1.04
10237	Trichloroethene	79-01-6	23	5	1	1.04
10237	Trichlorofluoromethane	75-69-4	25	5	2	1.04
10237	1,2,3-Trichloropropane	96-18-4	21	5	1	1.04
10237	1,2,4-Trimethylbenzene	95-63-6	23	5	1	1.04
10237	1,3,5-Trimethylbenzene	108-67-8	23	5	1	1.04
10237	Vinyl Acetate	108-05-4	61	11	2	1.06
10237	Vinyl Chloride	75-01-4	25	5	1	1.04
10237	m+p-Xylene	179601-23-1	47	5	1	1.04
10237	o-Xylene	95-47-6	23	5	1	1.04
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	14a Moisture Content by 160.3	n.a.	4.6	0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141612AA	06/10/2014 19:12	Chelsea B Stong	1.04
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141612AA	06/10/2014 19:58	Chelsea B Stong	1.06
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201415634714	06/05/2014 15:22	Mitchell R Washel	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201415634714	06/05/2014 15:22	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-586-SA5B-SB-3.75-4.25MS Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7488100
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 09:00 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58637 SDG#: PH216-03MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201415634714	06/05/2014 15:03	Mitchell R Washel	n.a.
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14162162401A	06/11/2014 20:09	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-586-SA5B-SB-3.75-4.25MSD Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7488101
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 09:00 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58637 SDG#: PH216-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg	ug/kg	ug/kg	
10237	Acetone	67-64-1	150	21	8	1.02
10237	Acrolein	107-02-8	140	110	21	1.02
10237	Acrylonitrile	107-13-1	91	21	4	1.02
10237	t-Amyl methyl ether	994-05-8	21	5	1	1.02
10237	Benzene	71-43-2	22	5	0.5	1.02
10237	Bromobenzene	108-86-1	22	5	1	1.02
10237	Bromochloromethane	74-97-5	25	5	1	1.02
10237	Bromodichloromethane	75-27-4	21	5	1	1.02
10237	Bromoform	75-25-2	19	5	1	1.02
10237	Bromomethane	74-83-9	24	5	2	1.02
10237	2-Butanone	78-93-3	140	11	4	1.02
10237	t-Butyl alcohol	75-65-0	260	54	21	1.02
10237	n-Butylbenzene	104-51-8	21	5	1	1.02
10237	sec-Butylbenzene	135-98-8	22	5	1	1.02
10237	tert-Butylbenzene	98-06-6	23	5	1	1.02
10237	Carbon Disulfide	75-15-0	24	5	1	1.02
10237	Carbon Tetrachloride	56-23-5	24	5	1	1.02
10237	Chlorobenzene	108-90-7	22	5	1	1.02
10237	Chloroethane	75-00-3	23	5	2	1.02
10237	2-Chloroethyl Vinyl Ether	110-75-8	17	11	2	1.02
10237	Chloroform	67-66-3	23	5	1	1.02
10237	1-Chlorohexane	544-10-5	21	5	1	1.02
10237	Chloromethane	74-87-3	24	5	2	1.02
10237	2-Chlorotoluene	95-49-8	22	5	1	1.02
10237	4-Chlorotoluene	106-43-4	22	5	1	1.02
10237	Chlorotrifluoroethene	79-38-9	24	5	2	1.05
10237	1,2-Dibromo-3-chloropropane	96-12-8	19	5	2	1.02
10237	Dibromochloromethane	124-48-1	21	5	1	1.02
10237	1,2-Dibromoethane	106-93-4	21	5	1	1.02
10237	Dibromomethane	74-95-3	21	5	1	1.02
10237	1,2-Dichlorobenzene	95-50-1	22	5	1	1.02
10237	1,3-Dichlorobenzene	541-73-1	22	5	1	1.02
10237	1,4-Dichlorobenzene	106-46-7	22	5	1	1.02
10237	Dichlorodifluoromethane	75-71-8	27	5	2	1.02
10237	1,1-Dichloroethane	75-34-3	22	5	1	1.02
10237	1,2-Dichloroethane	107-06-2	23	5	1	1.02
10237	1,1-Dichloroethene	75-35-4	26	5	1	1.02
10237	cis-1,2-Dichloroethene	156-59-2	23	5	1	1.02
10237	trans-1,2-Dichloroethene	156-60-5	24	5	1	1.02
10237	1,2-Dichloropropane	78-87-5	21	5	1	1.02
10237	1,3-Dichloropropane	142-28-9	20	5	1	1.02
10237	2,2-Dichloropropane	594-20-7	24	5	1	1.02
10237	1,1-Dichloropropene	563-58-6	24	5	1	1.02
10237	cis-1,3-Dichloropropene	10061-01-5	21	5	1	1.02
10237	trans-1,3-Dichloropropene	10061-02-6	21	5	1	1.02
10237	Ethyl t-butyl ether	637-92-3	21	5	1	1.02
10237	Ethylbenzene	100-41-4	23	5	1	1.02
10237	Freon 113	76-13-1	24	5	2	1.02
10237	Freon 133a	75-88-7	29	5	2	1.05
10237	Hexachlorobutadiene	87-68-3	18	5	2	1.02
10237	2-Hexanone	591-78-6	87	11	3	1.02

*=This limit was used in the evaluation of the final result

Sample Description: SVL-586-SA5B-SB-3.75-4.25MSD Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7488101
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 09:00 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58637 SDG#: PH216-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg	ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	21	5	1	1.02
10237	Isopropylbenzene	98-82-8	22	5	1	1.02
10237	p-Isopropyltoluene	99-87-6	21	5	1	1.02
10237	Methyl Iodide	74-88-4	25	5	3	1.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	21	5	0.5	1.02
10237	4-Methyl-2-pentanone	108-10-1	90	11	3	1.02
10237	Methylene Chloride	75-09-2	25	5	2	1.02
10237	n-Propylbenzene	103-65-1	23	5	1	1.02
10237	Styrene	100-42-5	23	5	1	1.02
10237	1,1,1,2-Tetrachloroethane	630-20-6	22	5	1	1.02
10237	1,1,2,2-Tetrachloroethane	79-34-5	21	5	1	1.02
10237	Tetrachloroethene	127-18-4	23	5	1	1.02
10237	Toluene	108-88-3	23	5	1	1.02
10237	1,2,3-Trichlorobenzene	87-61-6	18	5	1	1.02
10237	1,2,4-Trichlorobenzene	120-82-1	19	5	1	1.02
10237	1,1,1-Trichloroethane	71-55-6	23	5	1	1.02
10237	1,1,2-Trichloroethane	79-00-5	21	5	1	1.02
10237	Trichloroethene	79-01-6	23	5	1	1.02
10237	Trichlorofluoromethane	75-69-4	25	5	2	1.02
10237	1,2,3-Trichloropropane	96-18-4	22	5	1	1.02
10237	1,2,4-Trimethylbenzene	95-63-6	22	5	1	1.02
10237	1,3,5-Trimethylbenzene	108-67-8	23	5	1	1.02
10237	Vinyl Acetate	108-05-4	71	11	2	1.05
10237	Vinyl Chloride	75-01-4	25	5	1	1.02
10237	m+p-Xylene	179601-23-1	45	5	1	1.02
10237	o-Xylene	95-47-6	22	5	1	1.02
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	14a Moisture Content by 160.3	n.a.	4.6	0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	4.5	0.10	0.10	1

The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141612AA	06/10/2014 19:35	Chelsea B Stong	1.02
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141612AA	06/10/2014 20:21	Chelsea B Stong	1.05

*=This limit was used in the evaluation of the final result

Sample Description: SVL-586-SA5B-SB-3.75-4.25MSD Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7488101
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 09:00 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58637 SDG#: PH216-03MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201415634714	06/05/2014 15:22	Mitchell R Washel	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201415634714	06/05/2014 15:22	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201415634714	06/05/2014 15:08	Mitchell R Washel	n.a.
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14162162401A	06/11/2014 20:09	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	14162162401A	06/11/2014 20:09	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-986-SA5B-SB-3.75-4.25 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7488102
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 09:05 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

98637 SDG#: PH216-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	22	U	22	8	1.04
10237	Acrolein	107-02-8	110	U	110	22	1.04
10237	Acrylonitrile	107-13-1	22	U	22	4	1.04
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	1.04
10237	Benzene	71-43-2	5	U	5	0.5	1.04
10237	Bromobenzene	108-86-1	5	U	5	1	1.04
10237	Bromochloromethane	74-97-5	5	U	5	1	1.04
10237	Bromodichloromethane	75-27-4	5	U	5	1	1.04
10237	Bromoform	75-25-2	5	U	5	1	1.04
10237	Bromomethane	74-83-9	5	U	5	2	1.04
10237	2-Butanone	78-93-3	11	U	11	4	1.04
10237	t-Butyl alcohol	75-65-0	55	U	55	22	1.04
10237	n-Butylbenzene	104-51-8	5	U	5	1	1.04
10237	sec-Butylbenzene	135-98-8	5	U	5	1	1.04
10237	tert-Butylbenzene	98-06-6	5	U	5	1	1.04
10237	Carbon Disulfide	75-15-0	5	U	5	1	1.04
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	1.04
10237	Chlorobenzene	108-90-7	5	U	5	1	1.04
10237	Chloroethane	75-00-3	5	U	5	2	1.04
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	1.04
10237	Chloroform	67-66-3	5	U	5	1	1.04
10237	1-Chlorohexane	544-10-5	5	U	5	1	1.04
10237	Chloromethane	74-87-3	5	U	5	2	1.04
10237	2-Chlorotoluene	95-49-8	5	U	5	1	1.04
10237	4-Chlorotoluene	106-43-4	5	U	5	1	1.04
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	1.04
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1.04
10237	Dibromochloromethane	124-48-1	5	U	5	1	1.04
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	1.04
10237	Dibromomethane	74-95-3	5	U	5	1	1.04
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1.04
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1.04
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1.04
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	1.04
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	1.04
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	1.04
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	1.04
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	1.04
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	1.04
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	1.04
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	1.04
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	1.04
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	1.04
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	1.04
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	1.04
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	1.04
10237	Ethylbenzene	100-41-4	5	U	5	1	1.04
10237	Freon 113	76-13-1	5	U	5	2	1.04
10237	Freon 133a	75-88-7	5	U	5	2	1.04
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	1.04
10237	2-Hexanone	591-78-6	11	U	11	3	1.04

*=This limit was used in the evaluation of the final result

Sample Description: SVL-986-SA5B-SB-3.75-4.25 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7488102
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 09:05 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

98637 SDG#: PH216-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	1.04
10237	Isopropylbenzene	98-82-8	5	U	5	1	1.04
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	1.04
10237	Methyl Iodide	74-88-4	5	U	5	3	1.04
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1.04
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	1.04
10237	Methylene Chloride	75-09-2	5	U	5	2	1.04
10237	n-Propylbenzene	103-65-1	5	U	5	1	1.04
10237	Styrene	100-42-5	5	U	5	1	1.04
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	1.04
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	1.04
10237	Tetrachloroethene	127-18-4	5	U	5	1	1.04
10237	Toluene	108-88-3	5	U	5	1	1.04
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1.04
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1.04
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	1.04
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	1.04
10237	Trichloroethene	79-01-6	5	U	5	1	1.04
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	1.04
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1.04
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1.04
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1.04
10237	Vinyl Acetate	108-05-4	11	U	11	2	1.04
10237	Vinyl Chloride	75-01-4	5	U	5	1	1.04
10237	m+p-Xylene	179601-23-1	5	U	5	1	1.04
10237	o-Xylene	95-47-6	5	U	5	1	1.04
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	4.4		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141612AA	06/10/2014 20:43	Chelsea B Stong	1.04
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201415634714	06/05/2014 15:22	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-986-SA5B-SB-3.75-4.25 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7488102
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 09:05 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

98637 SDG#: PH216-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201415634714	06/05/2014 15:22	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201415634714	06/05/2014 15:11	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14162162401A	06/11/2014 20:09	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-576-SA5A-SB-2.5-3.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7488103
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 10:15 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57625 SDG#: PH216-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	21	U	21	7	1.02
10237	Acrolein	107-02-8	100	U	100	21	1.02
10237	Acrylonitrile	107-13-1	21	U	21	4	1.02
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	1.02
10237	Benzene	71-43-2	5	U	5	0.5	1.02
10237	Bromobenzene	108-86-1	5	U	5	1	1.02
10237	Bromochloromethane	74-97-5	5	U	5	1	1.02
10237	Bromodichloromethane	75-27-4	5	U	5	1	1.02
10237	Bromoform	75-25-2	5	U	5	1	1.02
10237	Bromomethane	74-83-9	5	U	5	2	1.02
10237	2-Butanone	78-93-3	10	U	10	4	1.02
10237	t-Butyl alcohol	75-65-0	52	U	52	21	1.02
10237	n-Butylbenzene	104-51-8	5	U	5	1	1.02
10237	sec-Butylbenzene	135-98-8	5	U	5	1	1.02
10237	tert-Butylbenzene	98-06-6	5	U	5	1	1.02
10237	Carbon Disulfide	75-15-0	5	U	5	1	1.02
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	1.02
10237	Chlorobenzene	108-90-7	5	U	5	1	1.02
10237	Chloroethane	75-00-3	5	U	5	2	1.02
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1.02
10237	Chloroform	67-66-3	5	U	5	1	1.02
10237	1-Chlorohexane	544-10-5	5	U	5	1	1.02
10237	Chloromethane	74-87-3	5	U	5	2	1.02
10237	2-Chlorotoluene	95-49-8	5	U	5	1	1.02
10237	4-Chlorotoluene	106-43-4	5	U	5	1	1.02
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	1.02
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1.02
10237	Dibromochloromethane	124-48-1	5	U	5	1	1.02
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	1.02
10237	Dibromomethane	74-95-3	5	U	5	1	1.02
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1.02
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1.02
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1.02
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	1.02
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	1.02
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	1.02
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	1.02
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	1.02
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	1.02
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	1.02
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	1.02
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	1.02
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	1.02
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	1.02
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	1.02
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	1.02
10237	Ethylbenzene	100-41-4	5	U	5	1	1.02
10237	Freon 113	76-13-1	5	U	5	2	1.02
10237	Freon 133a	75-88-7	5	U	5	2	1.02
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	1.02
10237	2-Hexanone	591-78-6	10	U	10	3	1.02

*=This limit was used in the evaluation of the final result

Sample Description: SVL-576-SA5A-SB-2.5-3.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7488103
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 10:15 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57625 SDG#: PH216-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	1.02
10237	Isopropylbenzene	98-82-8	5	U	5	1	1.02
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	1.02
10237	Methyl Iodide	74-88-4	5	U	5	3	1.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1.02
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1.02
10237	Methylene Chloride	75-09-2	5	U	5	2	1.02
10237	n-Propylbenzene	103-65-1	5	U	5	1	1.02
10237	Styrene	100-42-5	5	U	5	1	1.02
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	1.02
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	1.02
10237	Tetrachloroethene	127-18-4	5	U	5	1	1.02
10237	Toluene	108-88-3	5	U	5	1	1.02
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1.02
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1.02
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	1.02
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	1.02
10237	Trichloroethene	79-01-6	5	U	5	1	1.02
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	1.02
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1.02
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1.02
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1.02
10237	Vinyl Acetate	108-05-4	10	U	10	2	1.02
10237	Vinyl Chloride	75-01-4	5	U	5	1	1.02
10237	m+p-Xylene	179601-23-1	5	U	5	1	1.02
10237	o-Xylene	95-47-6	5	U	5	1	1.02
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	2.1		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141612AA	06/10/2014 21:06	Chelsea B Stong	1.02
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201415634714	06/05/2014 15:22	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-576-SA5A-SB-2.5-3.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7488103
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 10:15 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57625 SDG#: PH216-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201415634714	06/05/2014 15:22	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201415634714	06/05/2014 15:13	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14162162401A	06/11/2014 20:09	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-571-SA5A-SB-2.5-3.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7488104
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 11:26 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57125 SDG#: PH216-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	20	U	20	7	0.98
10237	Acrolein	107-02-8	100	U	100	20	0.98
10237	Acrylonitrile	107-13-1	20	U	20	4	0.98
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.98
10237	Benzene	71-43-2	5	U	5	0.5	0.98
10237	Bromobenzene	108-86-1	5	U	5	1	0.98
10237	Bromochloromethane	74-97-5	5	U	5	1	0.98
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.98
10237	Bromoform	75-25-2	5	U	5	1	0.98
10237	Bromomethane	74-83-9	5	U	5	2	0.98
10237	2-Butanone	78-93-3	10	U	10	4	0.98
10237	t-Butyl alcohol	75-65-0	50	U	50	20	0.98
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.98
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.98
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.98
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.98
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.98
10237	Chlorobenzene	108-90-7	5	U	5	1	0.98
10237	Chloroethane	75-00-3	5	U	5	2	0.98
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.98
10237	Chloroform	67-66-3	5	U	5	1	0.98
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.98
10237	Chloromethane	74-87-3	5	U	5	2	0.98
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.98
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.98
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.98
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.98
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.98
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.98
10237	Dibromomethane	74-95-3	5	U	5	1	0.98
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.98
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.98
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.98
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.98
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.98
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.98
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.98
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.98
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.98
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.98
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.98
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.98
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.98
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.98
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.98
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.98
10237	Ethylbenzene	100-41-4	5	U	5	1	0.98
10237	Freon 113	76-13-1	5	U	5	2	0.98
10237	Freon 133a	75-88-7	5	U	5	2	0.98
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.98
10237	2-Hexanone	591-78-6	10	U	10	3	0.98

*=This limit was used in the evaluation of the final result

Sample Description: SVL-571-SA5A-SB-2.5-3.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7488104
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 11:26 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57125 SDG#: PH216-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.98
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.98
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.98
10237	Methyl Iodide	74-88-4	5	U	5	3	0.98
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.98
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.98
10237	Methylene Chloride	75-09-2	5	U	5	2	0.98
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.98
10237	Styrene	100-42-5	5	U	5	1	0.98
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.98
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.98
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.98
10237	Toluene	108-88-3	5	U	5	1	0.98
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.98
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.98
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.98
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.98
10237	Trichloroethene	79-01-6	5	U	5	1	0.98
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.98
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.98
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.98
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.98
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.98
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.98
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.98
10237	o-Xylene	95-47-6	5	U	5	1	0.98
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	2.0		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141612AA	06/10/2014 21:29	Chelsea B Stong	0.98
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201415634714	06/05/2014 15:22	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-571-SA5A-SB-2.5-3.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7488104
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 11:26 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57125 SDG#: PH216-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201415634714	06/05/2014 15:22	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201415634714	06/05/2014 15:15	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14162162401A	06/11/2014 20:09	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-574-SA5A-SB-1.5-2.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7488105
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 11:10 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57415 SDG#: PH216-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	22	U	22	8	1.08
10237	Acrolein	107-02-8	110	U	110	22	1.08
10237	Acrylonitrile	107-13-1	22	U	22	4	1.08
10237	t-Amyl methyl ether	994-05-8	6	U	6	1	1.08
10237	Benzene	71-43-2	6	U	6	0.6	1.08
10237	Bromobenzene	108-86-1	6	U	6	1	1.08
10237	Bromochloromethane	74-97-5	6	U	6	1	1.08
10237	Bromodichloromethane	75-27-4	6	U	6	1	1.08
10237	Bromoform	75-25-2	6	U	6	1	1.08
10237	Bromomethane	74-83-9	6	U	6	2	1.08
10237	2-Butanone	78-93-3	11	U	11	4	1.08
10237	t-Butyl alcohol	75-65-0	56	U	56	22	1.08
10237	n-Butylbenzene	104-51-8	6	U	6	1	1.08
10237	sec-Butylbenzene	135-98-8	6	U	6	1	1.08
10237	tert-Butylbenzene	98-06-6	6	U	6	1	1.08
10237	Carbon Disulfide	75-15-0	6	U	6	1	1.08
10237	Carbon Tetrachloride	56-23-5	6	U	6	1	1.08
10237	Chlorobenzene	108-90-7	6	U	6	1	1.08
10237	Chloroethane	75-00-3	6	U	6	2	1.08
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	1.08
10237	Chloroform	67-66-3	6	U	6	1	1.08
10237	1-Chlorohexane	544-10-5	6	U	6	1	1.08
10237	Chloromethane	74-87-3	6	U	6	2	1.08
10237	2-Chlorotoluene	95-49-8	6	U	6	1	1.08
10237	4-Chlorotoluene	106-43-4	6	U	6	1	1.08
10237	Chlorotrifluoroethene	79-38-9	6	U	6	2	1.08
10237	1,2-Dibromo-3-chloropropane	96-12-8	6	U	6	2	1.08
10237	Dibromochloromethane	124-48-1	6	U	6	1	1.08
10237	1,2-Dibromoethane	106-93-4	6	U	6	1	1.08
10237	Dibromomethane	74-95-3	6	U	6	1	1.08
10237	1,2-Dichlorobenzene	95-50-1	6	U	6	1	1.08
10237	1,3-Dichlorobenzene	541-73-1	6	U	6	1	1.08
10237	1,4-Dichlorobenzene	106-46-7	6	U	6	1	1.08
10237	Dichlorodifluoromethane	75-71-8	6	U	6	2	1.08
10237	1,1-Dichloroethane	75-34-3	6	U	6	1	1.08
10237	1,2-Dichloroethane	107-06-2	6	U	6	1	1.08
10237	1,1-Dichloroethene	75-35-4	6	U	6	1	1.08
10237	cis-1,2-Dichloroethene	156-59-2	6	U	6	1	1.08
10237	trans-1,2-Dichloroethene	156-60-5	6	U	6	1	1.08
10237	1,2-Dichloropropane	78-87-5	6	U	6	1	1.08
10237	1,3-Dichloropropane	142-28-9	6	U	6	1	1.08
10237	2,2-Dichloropropane	594-20-7	6	U	6	1	1.08
10237	1,1-Dichloropropene	563-58-6	6	U	6	1	1.08
10237	cis-1,3-Dichloropropene	10061-01-5	6	U	6	1	1.08
10237	trans-1,3-Dichloropropene	10061-02-6	6	U	6	1	1.08
10237	Ethyl t-butyl ether	637-92-3	6	U	6	1	1.08
10237	Ethylbenzene	100-41-4	6	U	6	1	1.08
10237	Freon 113	76-13-1	6	U	6	2	1.08
10237	Freon 133a	75-88-7	6	U	6	2	1.08
10237	Hexachlorobutadiene	87-68-3	6	U	6	2	1.08
10237	2-Hexanone	591-78-6	11	U	11	3	1.08

*=This limit was used in the evaluation of the final result

Sample Description: SVL-574-SA5A-SB-1.5-2.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7488105
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 11:10 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57415 SDG#: PH216-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	6	U	6	1	1.08
10237	Isopropylbenzene	98-82-8	6	U	6	1	1.08
10237	p-Isopropyltoluene	99-87-6	6	U	6	1	1.08
10237	Methyl Iodide	74-88-4	6	U	6	3	1.08
10237	Methyl Tertiary Butyl Ether	1634-04-4	6	U	6	0.6	1.08
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	1.08
10237	Methylene Chloride	75-09-2	6	U	6	2	1.08
10237	n-Propylbenzene	103-65-1	6	U	6	1	1.08
10237	Styrene	100-42-5	6	U	6	1	1.08
10237	1,1,1,2-Tetrachloroethane	630-20-6	6	U	6	1	1.08
10237	1,1,2,2-Tetrachloroethane	79-34-5	6	U	6	1	1.08
10237	Tetrachloroethene	127-18-4	6	U	6	1	1.08
10237	Toluene	108-88-3	6	U	6	1	1.08
10237	1,2,3-Trichlorobenzene	87-61-6	6	U	6	1	1.08
10237	1,2,4-Trichlorobenzene	120-82-1	6	U	6	1	1.08
10237	1,1,1-Trichloroethane	71-55-6	6	U	6	1	1.08
10237	1,1,2-Trichloroethane	79-00-5	6	U	6	1	1.08
10237	Trichloroethene	79-01-6	6	U	6	1	1.08
10237	Trichlorofluoromethane	75-69-4	6	U	6	2	1.08
10237	1,2,3-Trichloropropane	96-18-4	6	U	6	1	1.08
10237	1,2,4-Trimethylbenzene	95-63-6	6	U	6	1	1.08
10237	1,3,5-Trimethylbenzene	108-67-8	6	U	6	1	1.08
10237	Vinyl Acetate	108-05-4	11	U	11	2	1.08
10237	Vinyl Chloride	75-01-4	6	U	6	1	1.08
10237	m+p-Xylene	179601-23-1	6	U	6	1	1.08
10237	o-Xylene	95-47-6	6	U	6	1	1.08
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	2.8		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141612AA	06/10/2014 21:51	Chelsea B Stong	1.08
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201415634714	06/05/2014 15:22	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-574-SA5A-SB-1.5-2.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7488105
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 11:10 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57415 SDG#: PH216-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201415634714	06/05/2014 15:22	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201415634714	06/05/2014 15:17	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14162162401A	06/11/2014 20:09	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-566-SA5A-SB-3.0-3.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7488106
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 13:15 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56630 SDG#: PH216-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	22	U	22	8	1.03
10237	Acrolein	107-02-8	110	U	110	22	1.03
10237	Acrylonitrile	107-13-1	22	U	22	4	1.03
10237	t-Amyl methyl ether	994-05-8	6	U	6	1	1.03
10237	Benzene	71-43-2	6	U	6	0.6	1.03
10237	Bromobenzene	108-86-1	6	U	6	1	1.03
10237	Bromochloromethane	74-97-5	6	U	6	1	1.03
10237	Bromodichloromethane	75-27-4	6	U	6	1	1.03
10237	Bromoform	75-25-2	6	U	6	1	1.03
10237	Bromomethane	74-83-9	6	U	6	2	1.03
10237	2-Butanone	78-93-3	11	U	11	4	1.03
10237	t-Butyl alcohol	75-65-0	56	U	56	22	1.03
10237	n-Butylbenzene	104-51-8	6	U	6	1	1.03
10237	sec-Butylbenzene	135-98-8	6	U	6	1	1.03
10237	tert-Butylbenzene	98-06-6	6	U	6	1	1.03
10237	Carbon Disulfide	75-15-0	6	U	6	1	1.03
10237	Carbon Tetrachloride	56-23-5	6	U	6	1	1.03
10237	Chlorobenzene	108-90-7	6	U	6	1	1.03
10237	Chloroethane	75-00-3	6	U	6	2	1.03
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	1.03
10237	Chloroform	67-66-3	6	U	6	1	1.03
10237	1-Chlorohexane	544-10-5	6	U	6	1	1.03
10237	Chloromethane	74-87-3	6	U	6	2	1.03
10237	2-Chlorotoluene	95-49-8	6	U	6	1	1.03
10237	4-Chlorotoluene	106-43-4	6	U	6	1	1.03
10237	Chlorotrifluoroethene	79-38-9	6	U	6	2	1.03
10237	1,2-Dibromo-3-chloropropane	96-12-8	6	U	6	2	1.03
10237	Dibromochloromethane	124-48-1	6	U	6	1	1.03
10237	1,2-Dibromoethane	106-93-4	6	U	6	1	1.03
10237	Dibromomethane	74-95-3	6	U	6	1	1.03
10237	1,2-Dichlorobenzene	95-50-1	6	U	6	1	1.03
10237	1,3-Dichlorobenzene	541-73-1	6	U	6	1	1.03
10237	1,4-Dichlorobenzene	106-46-7	6	U	6	1	1.03
10237	Dichlorodifluoromethane	75-71-8	6	U	6	2	1.03
10237	1,1-Dichloroethane	75-34-3	6	U	6	1	1.03
10237	1,2-Dichloroethane	107-06-2	6	U	6	1	1.03
10237	1,1-Dichloroethene	75-35-4	6	U	6	1	1.03
10237	cis-1,2-Dichloroethene	156-59-2	6	U	6	1	1.03
10237	trans-1,2-Dichloroethene	156-60-5	6	U	6	1	1.03
10237	1,2-Dichloropropane	78-87-5	6	U	6	1	1.03
10237	1,3-Dichloropropane	142-28-9	6	U	6	1	1.03
10237	2,2-Dichloropropane	594-20-7	6	U	6	1	1.03
10237	1,1-Dichloropropene	563-58-6	6	U	6	1	1.03
10237	cis-1,3-Dichloropropene	10061-01-5	6	U	6	1	1.03
10237	trans-1,3-Dichloropropene	10061-02-6	6	U	6	1	1.03
10237	Ethyl t-butyl ether	637-92-3	6	U	6	1	1.03
10237	Ethylbenzene	100-41-4	6	U	6	1	1.03
10237	Freon 113	76-13-1	6	U	6	2	1.03
10237	Freon 133a	75-88-7	6	U	6	2	1.03
10237	Hexachlorobutadiene	87-68-3	6	U	6	2	1.03
10237	2-Hexanone	591-78-6	11	U	11	3	1.03

*=This limit was used in the evaluation of the final result

Sample Description: SVL-566-SA5A-SB-3.0-3.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7488106
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 13:15 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56630 SDG#: PH216-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	6	U	6	1	1.03
10237	Isopropylbenzene	98-82-8	6	U	6	1	1.03
10237	p-Isopropyltoluene	99-87-6	6	U	6	1	1.03
10237	Methyl Iodide	74-88-4	6	U	6	3	1.03
10237	Methyl Tertiary Butyl Ether	1634-04-4	6	U	6	0.6	1.03
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	1.03
10237	Methylene Chloride	75-09-2	6	U	6	2	1.03
10237	n-Propylbenzene	103-65-1	6	U	6	1	1.03
10237	Styrene	100-42-5	6	U	6	1	1.03
10237	1,1,1,2-Tetrachloroethane	630-20-6	6	U	6	1	1.03
10237	1,1,2,2-Tetrachloroethane	79-34-5	6	U	6	1	1.03
10237	Tetrachloroethene	127-18-4	6	U	6	1	1.03
10237	Toluene	108-88-3	6	U	6	1	1.03
10237	1,2,3-Trichlorobenzene	87-61-6	6	U	6	1	1.03
10237	1,2,4-Trichlorobenzene	120-82-1	6	U	6	1	1.03
10237	1,1,1-Trichloroethane	71-55-6	6	U	6	1	1.03
10237	1,1,2-Trichloroethane	79-00-5	6	U	6	1	1.03
10237	Trichloroethene	79-01-6	6	U	6	1	1.03
10237	Trichlorofluoromethane	75-69-4	6	U	6	2	1.03
10237	1,2,3-Trichloropropane	96-18-4	6	U	6	1	1.03
10237	1,2,4-Trimethylbenzene	95-63-6	6	U	6	1	1.03
10237	1,3,5-Trimethylbenzene	108-67-8	6	U	6	1	1.03
10237	Vinyl Acetate	108-05-4	11	U	11	2	1.03
10237	Vinyl Chloride	75-01-4	6	U	6	1	1.03
10237	m+p-Xylene	179601-23-1	6	U	6	1	1.03
10237	o-Xylene	95-47-6	6	U	6	1	1.03
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	8.4		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141612AA	06/10/2014 22:14	Chelsea B Stong	1.03
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201415634714	06/05/2014 15:22	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-566-SA5A-SB-3.0-3.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7488106
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 13:15 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56630 SDG#: PH216-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201415634714	06/05/2014 15:22	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201415634714	06/05/2014 15:20	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14162162401A	06/11/2014 20:09	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: EB1-060414 Water
SSFL Phase 3 Subarea 5B/5A

LL Sample # WW 7488107
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 07:05 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB164 SDG#: PH216-09EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	5	U	5	0.5	1
10335	Benzene	71-43-2	5	U	5	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	5	U	5	0.5	1
10335	Bromoform	75-25-2	5	U	5	0.5	1
10335	Bromomethane	74-83-9	5	U	5	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	5	U	5	0.5	1
10335	Chlorobenzene	108-90-7	5	U	5	0.5	1
10335	Chloroethane	75-00-3	5	U	5	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	5	U	5	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	5	U	5	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	5	U	5	0.5	1
10335	1,2-Dibromoethane	106-93-4	5	U	5	0.5	1
10335	Dibromomethane	74-95-3	5	U	5	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	5	U	5	0.5	1
10335	1,1-Dichloroethane	75-34-3	5	U	5	0.5	1
10335	1,2-Dichloroethane	107-06-2	5	U	5	0.5	1
10335	1,1-Dichloroethene	75-35-4	5	U	5	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.5	1
10335	1,2-Dichloropropane	78-87-5	5	U	5	0.5	1
10335	1,3-Dichloropropane	142-28-9	5	U	5	0.5	1
10335	2,2-Dichloropropane	594-20-7	5	U	5	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.5	1
10335	Ethyl t-butyl ether	637-92-3	5	U	5	0.5	1
10335	Ethylbenzene	100-41-4	5	U	5	0.5	1
10335	Freon 113	76-13-1	5	U	5	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: EB1-060414 Water
SSFL Phase 3 Subarea 5B/5A

LL Sample # WW 7488107
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 07:05 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB164 SDG#: PH216-09EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	5	U	5	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	5	U	5	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	5	U	5	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.5	1
10335	Tetrachloroethene	127-18-4	5	U	5	0.5	1
10335	Toluene	108-88-3	5	U	5	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	5	U	5	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	5	U	5	0.5	1
10335	Trichloroethene	79-01-6	5	U	5	0.5	1
10335	Trichlorofluoromethane	75-69-4	5	U	5	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	5	U	5	0.5	1
10335	m+p-Xylene	179601-23-1	5	U	5	0.5	1
10335	o-Xylene	95-47-6	5	U	5	0.5	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141562AA	06/05/2014 17:58	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141562AA	06/05/2014 17:58	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-060414 Water
SSFL Phase 3 Subarea 5B/5A

LL Sample # WW 7488108
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 07:20 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB264 SDG#: PH216-10EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	5	U	5	0.5	1
10335	Benzene	71-43-2	5	U	5	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	5	U	5	0.5	1
10335	Bromoform	75-25-2	5	U	5	0.5	1
10335	Bromomethane	74-83-9	5	U	5	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	5	U	5	0.5	1
10335	Chlorobenzene	108-90-7	5	U	5	0.5	1
10335	Chloroethane	75-00-3	5	U	5	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	5	U	5	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	5	U	5	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	5	U	5	0.5	1
10335	1,2-Dibromoethane	106-93-4	5	U	5	0.5	1
10335	Dibromomethane	74-95-3	5	U	5	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	5	U	5	0.5	1
10335	1,1-Dichloroethane	75-34-3	5	U	5	0.5	1
10335	1,2-Dichloroethane	107-06-2	5	U	5	0.5	1
10335	1,1-Dichloroethene	75-35-4	5	U	5	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.5	1
10335	1,2-Dichloropropane	78-87-5	5	U	5	0.5	1
10335	1,3-Dichloropropane	142-28-9	5	U	5	0.5	1
10335	2,2-Dichloropropane	594-20-7	5	U	5	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.5	1
10335	Ethyl t-butyl ether	637-92-3	5	U	5	0.5	1
10335	Ethylbenzene	100-41-4	5	U	5	0.5	1
10335	Freon 113	76-13-1	5	U	5	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-060414 Water
SSFL Phase 3 Subarea 5B/5A

LL Sample # WW 7488108
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 07:20 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB264 SDG#: PH216-10EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	5	U	5	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	5	U	5	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	5	U	5	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.5	1
10335	Tetrachloroethene	127-18-4	5	U	5	0.5	1
10335	Toluene	108-88-3	5	U	5	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	5	U	5	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	5	U	5	0.5	1
10335	Trichloroethene	79-01-6	5	U	5	0.5	1
10335	Trichlorofluoromethane	75-69-4	5	U	5	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	5	U	5	0.5	1
10335	m+p-Xylene	179601-23-1	5	U	5	0.5	1
10335	o-Xylene	95-47-6	5	U	5	0.5	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141562AA	06/05/2014 18:19	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141562AA	06/05/2014 18:19	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Sample Description: EB4-060414 Water
SSFL Phase 3 Subarea 5B/5A

LL Sample # WW 7488109
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 07:08 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB464 SDG#: PH216-11EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	5	U	5	0.5	1
10335	Benzene	71-43-2	5	U	5	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	5	U	5	0.5	1
10335	Bromoform	75-25-2	5	U	5	0.5	1
10335	Bromomethane	74-83-9	5	U	5	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	5	U	5	0.5	1
10335	Chlorobenzene	108-90-7	5	U	5	0.5	1
10335	Chloroethane	75-00-3	5	U	5	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	5	U	5	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	5	U	5	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	5	U	5	0.5	1
10335	1,2-Dibromoethane	106-93-4	5	U	5	0.5	1
10335	Dibromomethane	74-95-3	5	U	5	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	5	U	5	0.5	1
10335	1,1-Dichloroethane	75-34-3	5	U	5	0.5	1
10335	1,2-Dichloroethane	107-06-2	5	U	5	0.5	1
10335	1,1-Dichloroethene	75-35-4	5	U	5	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.5	1
10335	1,2-Dichloropropane	78-87-5	5	U	5	0.5	1
10335	1,3-Dichloropropane	142-28-9	5	U	5	0.5	1
10335	2,2-Dichloropropane	594-20-7	5	U	5	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.5	1
10335	Ethyl t-butyl ether	637-92-3	5	U	5	0.5	1
10335	Ethylbenzene	100-41-4	5	U	5	0.5	1
10335	Freon 113	76-13-1	5	U	5	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: EB4-060414 Water
SSFL Phase 3 Subarea 5B/5A

LL Sample # WW 7488109
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 07:08 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB464 SDG#: PH216-11EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	5	U	5	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	5	U	5	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	5	U	5	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.5	1
10335	Tetrachloroethene	127-18-4	5	U	5	0.5	1
10335	Toluene	108-88-3	5	U	5	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	5	U	5	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	5	U	5	0.5	1
10335	Trichloroethene	79-01-6	5	U	5	0.5	1
10335	Trichlorofluoromethane	75-69-4	5	U	5	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	5	U	5	0.5	1
10335	m+p-Xylene	179601-23-1	5	U	5	0.5	1
10335	o-Xylene	95-47-6	5	U	5	0.5	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141562AA	06/05/2014 18:40	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141562AA	06/05/2014 18:40	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Sample Description: EB5-060414 Water
SSFL Phase 3 Subarea 5B/5A

LL Sample # WW 7488110
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 07:22 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB564 SDG#: PH216-12EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	5	U	5	0.5	1
10335	Benzene	71-43-2	5	U	5	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	5	U	5	0.5	1
10335	Bromoform	75-25-2	5	U	5	0.5	1
10335	Bromomethane	74-83-9	5	U	5	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	5	U	5	0.5	1
10335	Chlorobenzene	108-90-7	5	U	5	0.5	1
10335	Chloroethane	75-00-3	5	U	5	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	5	U	5	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	5	U	5	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	5	U	5	0.5	1
10335	1,2-Dibromoethane	106-93-4	5	U	5	0.5	1
10335	Dibromomethane	74-95-3	5	U	5	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	5	U	5	0.5	1
10335	1,1-Dichloroethane	75-34-3	5	U	5	0.5	1
10335	1,2-Dichloroethane	107-06-2	5	U	5	0.5	1
10335	1,1-Dichloroethene	75-35-4	5	U	5	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.5	1
10335	1,2-Dichloropropane	78-87-5	5	U	5	0.5	1
10335	1,3-Dichloropropane	142-28-9	5	U	5	0.5	1
10335	2,2-Dichloropropane	594-20-7	5	U	5	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.5	1
10335	Ethyl t-butyl ether	637-92-3	5	U	5	0.5	1
10335	Ethylbenzene	100-41-4	5	U	5	0.5	1
10335	Freon 113	76-13-1	5	U	5	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: EB5-060414 Water
SSFL Phase 3 Subarea 5B/5A

LL Sample # WW 7488110
LL Group # 1479554
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 07:22 by VV

Submitted: 06/05/2014 09:15
Reported: 06/16/2014 19:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB564 SDG#: PH216-12EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	5	U	5	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	5	U	5	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	5	U	5	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.5	1
10335	Tetrachloroethene	127-18-4	5	U	5	0.5	1
10335	Toluene	108-88-3	5	U	5	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	5	U	5	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	5	U	5	0.5	1
10335	Trichloroethene	79-01-6	5	U	5	0.5	1
10335	Trichlorofluoromethane	75-69-4	5	U	5	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	5	U	5	0.5	1
10335	m+p-Xylene	179601-23-1	5	U	5	0.5	1
10335	o-Xylene	95-47-6	5	U	5	0.5	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141562AA	06/05/2014 19:02	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141562AA	06/05/2014 19:02	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479554
Reported: 06/16/14 at 07:36 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B141612AA	Sample number(s): 7488098-7488106									
Acetone	20	U	20.	7	ug/kg	106		41-149		
Acrolein	100 U		100.	20	ug/kg	88		50-137		
Acrylonitrile	20	U	20.	4	ug/kg	103		58-123		
t-Amyl methyl ether	5	U	5.	1	ug/kg	99		63-130		
Benzene	5	U	5.	0.5	ug/kg	106		80-120		
Bromobenzene	5	U	5.	1	ug/kg	99		78-120		
Bromochloromethane	5	U	5.	1	ug/kg	113		75-129		
Bromodichloromethane	5	U	5.	1	ug/kg	102		75-120		
Bromoform	5	U	5.	1	ug/kg	99		70-126		
Bromomethane	5	U	5.	2	ug/kg	106		32-162		
2-Butanone	10	U	10.	4	ug/kg	101		47-136		
t-Butyl alcohol	50	U	50.	20	ug/kg	121		66-133		
n-Butylbenzene	5	U	5.	1	ug/kg	97		72-120		
sec-Butylbenzene	5	U	5.	1	ug/kg	96		69-120		
tert-Butylbenzene	5	U	5.	1	ug/kg	97		75-120		
Carbon Disulfide	5	U	5.	1	ug/kg	107		63-128		
Carbon Tetrachloride	5	U	5.	1	ug/kg	110		69-130		
Chlorobenzene	5	U	5.	1	ug/kg	104		80-120		
Chloroethane	5	U	5.	2	ug/kg	100		17-171		
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/kg	87		52-134		
Chloroform	5	U	5.	1	ug/kg	111		80-120		
1-Chlorohexane	5	U	5.	1	ug/kg	81		70-130		
Chloromethane	5	U	5.	2	ug/kg	103		56-120		
2-Chlorotoluene	5	U	5.	1	ug/kg	98		78-120		
4-Chlorotoluene	5	U	5.	1	ug/kg	100		79-120		
Chlorotrifluoroethene	5	U	5.	2	ug/kg	79		22-131		
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/kg	99		50-132		
Dibromochloromethane	5	U	5.	1	ug/kg	105		77-120		
1,2-Dibromoethane	5	U	5.	1	ug/kg	104		80-120		
Dibromomethane	5	U	5.	1	ug/kg	106		75-120		
1,2-Dichlorobenzene	5	U	5.	1	ug/kg	100		80-120		
1,3-Dichlorobenzene	5	U	5.	1	ug/kg	97		80-120		
1,4-Dichlorobenzene	5	U	5.	1	ug/kg	99		80-120		
Dichlorodifluoromethane	5	U	5.	2	ug/kg	107		26-137		
1,1-Dichloroethane	5	U	5.	1	ug/kg	105		71-122		
1,2-Dichloroethane	5	U	5.	1	ug/kg	109		66-136		
1,1-Dichloroethene	5	U	5.	1	ug/kg	116		73-129		
cis-1,2-Dichloroethene	5	U	5.	1	ug/kg	109		80-120		
trans-1,2-Dichloroethene	5	U	5.	1	ug/kg	113		79-120		
1,2-Dichloropropane	5	U	5.	1	ug/kg	101		77-120		
1,3-Dichloropropane	5	U	5.	1	ug/kg	99		73-120		
2,2-Dichloropropane	5	U	5.	1	ug/kg	110		72-123		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479554
Reported: 06/16/14 at 07:36 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/kg	112		77-120		
cis-1,3-Dichloropropene	5	U	5.	1	ug/kg	102		74-120		
trans-1,3-Dichloropropene	5	U	5.	1	ug/kg	100		69-120		
Ethyl t-butyl ether	5	U	5.	1	ug/kg	103		59-134		
Ethylbenzene	5	U	5.	1	ug/kg	103		80-120		
Freon 113	5	U	5.	2	ug/kg	105		64-137		
Freon 133a	5	U	5.	2	ug/kg	104		78-120		
Hexachlorobutadiene	5	U	5.	2	ug/kg	94		46-130		
2-Hexanone	10	U	10.	3	ug/kg	95		40-129		
di-Isopropyl ether	5	U	5.	1	ug/kg	104		68-128		
Isopropylbenzene	5	U	5.	1	ug/kg	103		76-120		
p-Isopropyltoluene	5	U	5.	1	ug/kg	93		69-120		
Methyl Iodide	5	U	5.	3	ug/kg	115		72-130		
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/kg	108		69-126		
4-Methyl-2-pentanone	10	U	10.	3	ug/kg	102		43-133		
Methylene Chloride	5	U	5.	2	ug/kg	117		80-124		
n-Propylbenzene	5	U	5.	1	ug/kg	100		77-120		
Styrene	5	U	5.	1	ug/kg	102		76-120		
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/kg	103		80-120		
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/kg	99		71-123		
Tetrachloroethene	5	U	5.	1	ug/kg	98		78-120		
Toluene	5	U	5.	1	ug/kg	102		80-120		
1,2,3-Trichlorobenzene	5	U	5.	1	ug/kg	94		64-120		
1,2,4-Trichlorobenzene	5	U	5.	1	ug/kg	96		68-120		
1,1,1-Trichloroethane	5	U	5.	1	ug/kg	101		63-135		
1,1,2-Trichloroethane	5	U	5.	1	ug/kg	104		80-120		
Trichloroethene	5	U	5.	1	ug/kg	108		80-120		
Trichlorofluoromethane	5	U	5.	2	ug/kg	103		58-133		
1,2,3-Trichloropropane	5	U	5.	1	ug/kg	104		71-123		
1,2,4-Trimethylbenzene	5	U	5.	1	ug/kg	99		79-120		
1,3,5-Trimethylbenzene	5	U	5.	1	ug/kg	99		78-120		
Vinyl Acetate	10	U	10.	2	ug/kg	65		40-127		
Vinyl Chloride	5	U	5.	1	ug/kg	107		59-120		
m+p-Xylene	5	U	5.	1	ug/kg	104		80-120		
o-Xylene	5	U	5.	1	ug/kg	101		80-120		
Batch number: Y141562AA	Sample number(s): 7488097,7488107-7488110									
Acetone	20	U	20.	6	ug/l	92	91	43-149	1	30
Acrolein	100	U	100.	40	ug/l	79	78	52-129	2	30
Acrylonitrile	20	U	20.	4	ug/l	95	92	62-120	3	30
t-Amyl methyl ether	5	U	5.	0.5	ug/l	93	93	75-120	0	30
Benzene	5	U	5.	0.5	ug/l	96	96	78-120	1	30
Bromobenzene	5	U	5.	1	ug/l	98	98	80-120	0	30
Bromochloromethane	5	U	5.	1	ug/l	101	97	80-121	4	30
Bromodichloromethane	5	U	5.	0.5	ug/l	94	93	73-120	1	30
Bromoform	5	U	5.	0.5	ug/l	90	90	61-120	0	30
Bromomethane	5	U	5.	0.5	ug/l	106	105	58-120	1	30
2-Butanone	10	U	10.	3	ug/l	87	86	54-133	0	30
t-Butyl alcohol	50	U	50.	5	ug/l	98	98	75-120	0	30
n-Butylbenzene	5	U	5.	1	ug/l	90	90	68-120	0	30
sec-Butylbenzene	5	U	5.	1	ug/l	94	94	80-120	0	30
tert-Butylbenzene	5	U	5.	1	ug/l	96	94	73-120	1	30
Carbon Disulfide	5	U	5.	1	ug/l	95	92	58-126	3	30
Carbon Tetrachloride	5	U	5.	0.5	ug/l	105	104	74-130	1	30
Chlorobenzene	5	U	5.	0.5	ug/l	97	97	80-120	0	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479554
Reported: 06/16/14 at 07:36 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroethane	5	U	5.	0.5	ug/l	97	93	56-120	4	30
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/l	106	105	54-126	2	30
Chloroform	5	U	5.	0.5	ug/l	101	98	80-122	3	30
1-Chlorohexane	5	U	5.	1	ug/l	94	96	80-120	2	30
Chloromethane	5	U	5.	0.5	ug/l	107	107	63-120	0	30
2-Chlorotoluene	5	U	5.	1	ug/l	95	94	80-120	1	30
4-Chlorotoluene	5	U	5.	1	ug/l	94	94	80-120	1	30
Chlorotrifluoroethene	5	U	5.	2	ug/l	66	67	47-120	1	30
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/l	87	87	56-120	0	30
Dibromochloromethane	5	U	5.	0.5	ug/l	97	96	72-120	1	30
1,2-Dibromoethane	5	U	5.	0.5	ug/l	100	100	76-120	0	30
Dibromomethane	5	U	5.	0.5	ug/l	96	94	80-120	2	30
1,2-Dichlorobenzene	5	U	5.	1	ug/l	96	95	80-120	1	30
1,3-Dichlorobenzene	5	U	5.	1	ug/l	96	96	80-120	0	30
1,4-Dichlorobenzene	5	U	5.	1	ug/l	96	96	80-120	1	30
Dichlorodifluoromethane	5	U	5.	0.5	ug/l	110	107	48-132	3	30
1,1-Dichloroethane	5	U	5.	0.5	ug/l	94	93	80-120	2	30
1,2-Dichloroethane	5	U	5.	0.5	ug/l	102	101	65-135	1	30
1,1-Dichloroethene	5	U	5.	0.5	ug/l	111	110	76-124	1	30
cis-1,2-Dichloroethene	5	U	5.	0.5	ug/l	99	97	80-120	3	30
trans-1,2-Dichloroethene	5	U	5.	0.5	ug/l	114	113	80-120	2	30
1,2-Dichloropropane	5	U	5.	0.5	ug/l	93	92	80-120	1	30
1,3-Dichloropropane	5	U	5.	0.5	ug/l	92	92	80-120	1	30
2,2-Dichloropropane	5	U	5.	0.5	ug/l	98	97	67-124	2	30
1,1-Dichloropropene	5	U	5.	1	ug/l	101	101	80-120	1	30
cis-1,3-Dichloropropene	5	U	5.	0.5	ug/l	92	91	80-120	1	30
trans-1,3-Dichloropropene	5	U	5.	0.5	ug/l	92	91	76-120	1	30
Ethyl t-butyl ether	5	U	5.	0.5	ug/l	94	93	74-120	1	30
Ethylbenzene	5	U	5.	0.5	ug/l	95	95	79-120	1	30
Freon 113	5	U	5.	2	ug/l	99	98	67-127	0	30
Freon 133a	5	U	5.	2	ug/l	106	106	46-152	0	30
Hexachlorobutadiene	5	U	5.	2	ug/l	90	91	51-125	1	30
2-Hexanone	10	U	10.	3	ug/l	86	86	44-126	0	30
di-Isopropyl ether	5	U	5.	0.5	ug/l	93	94	65-120	0	30
Isopropylbenzene	5	U	5.	1	ug/l	97	97	77-120	0	30
p-Isopropyltoluene	5	U	5.	1	ug/l	93	93	80-120	1	30
Methyl Iodide	5	U	5.	0.5	ug/l	110	108	75-128	2	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/l	106	105	75-120	1	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	88	87	51-124	1	30
Methylene Chloride	5	U	5.	2	ug/l	109	108	80-120	1	30
n-Propylbenzene	5	U	5.	1	ug/l	94	94	80-120	1	30
Styrene	5	U	5.	1	ug/l	96	96	80-120	0	30
1,1,1,2-Tetrachloroethane	5	U	5.	0.5	ug/l	99	99	80-120	0	30
1,1,2,2-Tetrachloroethane	5	U	5.	0.5	ug/l	89	88	70-120	1	30
Tetrachloroethene	5	U	5.	0.5	ug/l	103	100	80-120	2	30
Toluene	5	U	5.	0.5	ug/l	96	97	80-120	1	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	91	91	58-126	0	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	94	94	65-120	0	30
1,1,1-Trichloroethane	5	U	5.	0.5	ug/l	90	88	66-126	2	30
1,1,2-Trichloroethane	5	U	5.	0.5	ug/l	95	94	80-120	0	30
Trichloroethene	5	U	5.	0.5	ug/l	101	99	80-120	2	30
Trichlorofluoromethane	5	U	5.	0.5	ug/l	107	103	65-130	3	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	93	95	76-120	2	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	96	96	74-120	0	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	97	96	74-120	1	30
Vinyl Acetate	10	U	10.	2	ug/l	69	68	56-135	1	30

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479554
Reported: 06/16/14 at 07:36 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vinyl Chloride	5	U	5.	0.5	ug/l	106	105	63-120	1	30
m+p-Xylene	5	U	5.	0.5	ug/l	96	95	80-120	1	30
o-Xylene	5	U	5.	0.5	ug/l	96	95	80-120	1	30
Batch number: 14162162401A	Sample number(s): 7488098-7488106									
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: B141612AA	Sample number(s): 7488098-7488106 UNSPK: 7488099								
Acetone	89	96	31-195	6	30				
Acrolein	85	89	10-165	4	30				
Acrylonitrile	87	85	48-139	4	30				
t-Amyl methyl ether	94	97	50-132	2	30				
Benzene	105	105	55-143	1	30				
Bromobenzene	103	103	43-139	1	30				
Bromochloromethane	124	115	60-137	9	30				
Bromodichloromethane	97	97	53-136	1	30				
Bromoform	93	91	50-144	4	30				
Bromomethane	111	112	42-168	0	30				
2-Butanone	81	86	37-163	4	30				
t-Butyl alcohol	126	123	47-153	4	30				
n-Butylbenzene	97	99	30-146	1	30				
sec-Butylbenzene	103	104	33-157	1	30				
tert-Butylbenzene	105	107	41-152	0	30				
Carbon Disulfide	112	111	48-146	2	30				
Carbon Tetrachloride	114	114	51-165	1	30				
Chlorobenzene	105	103	49-135	3	30				
Chloroethane	107	106	39-152	3	30				
2-Chloroethyl Vinyl Ether	70	78	32-139	9	30				
Chloroform	108	108	61-142	1	30				
1-Chlorohexane	94	98	70-130	2	30				
Chloromethane	109	112	36-143	1	30				
2-Chlorotoluene	104	103	42-146	2	30				
4-Chlorotoluene	105	105	39-145	2	30				
Chlorotrifluoroethene	91	108	70-130	16	30				
1,2-Dibromo-3-chloropropane	85	88	34-165	1	30				
Dibromochloromethane	105	98	51-128	8	30				
1,2-Dibromoethane	100	99	54-129	2	30				
Dibromomethane	94	98	57-130	2	30				
1,2-Dichlorobenzene	97	100	36-133	2	30				
1,3-Dichlorobenzene	101	103	34-134	1	30				
1,4-Dichlorobenzene	101	101	35-136	1	30				
Dichlorodifluoromethane	123	123	26-151	1	30				
1,1-Dichloroethane	103	103	63-142	1	30				
1,2-Dichloroethane	103	106	54-143	2	30				

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479554
Reported: 06/16/14 at 07:36 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
1,1-Dichloroethene	121	119	61-149	3	30				
cis-1,2-Dichloroethene	106	108	67-135	0	30				
trans-1,2-Dichloroethene	120	112	64-144	8	30				
1,2-Dichloropropane	98	98	54-144	1	30				
1,3-Dichloropropane	96	95	51-140	2	30				
2,2-Dichloropropane	109	111	53-147	0	30				
1,1-Dichloropropene	113	114	54-145	1	30				
cis-1,3-Dichloropropene	94	96	45-137	1	30				
trans-1,3-Dichloropropene	100	98	51-134	3	30				
Ethyl t-butyl ether	95	97	58-124	1	30				
Ethylbenzene	109	106	44-141	4	30				
Freon 113	114	111	56-156	4	30				
Freon 133a	111	132*	61-131	17	30				
Hexachlorobutadiene	90	84	10-155	8	30				
2-Hexanone	80	81	32-160	0	30				
di-Isopropyl ether	98	99	59-133	0	30				
Isopropylbenzene	106	103	38-144	4	30				
p-Isopropyltoluene	102	98	29-152	5	30				
Methyl Iodide	116	115	52-139	2	30				
Methyl Tertiary Butyl Ether	98	99	55-129	0	30				
4-Methyl-2-pentanone	80	84	46-139	4	30				
Methylene Chloride	112	117	60-149	4	30				
n-Propylbenzene	106	107	39-157	0	30				
Styrene	104	107	35-134	2	30				
1,1,1,2-Tetrachloroethane	106	104	55-139	3	30				
1,1,2,2-Tetrachloroethane	90	95	29-182	4	30				
Tetrachloroethene	109	107	42-149	4	30				
Toluene	110	106	50-146	4	30				
1,2,3-Trichlorobenzene	79	85	10-140	6	30				
1,2,4-Trichlorobenzene	85	88	10-136	2	30				
1,1,1-Trichloroethane	106	106	52-146	1	30				
1,1,2-Trichloroethane	102	99	58-152	4	30				
Trichloroethene	107	107	53-144	1	30				
Trichlorofluoromethane	117	117	47-163	0	30				
1,2,3-Trichloropropane	98	102	36-180	3	30				
1,2,4-Trimethylbenzene	106	104	37-149	3	30				
1,3,5-Trimethylbenzene	105	106	38-150	0	30				
Vinyl Acetate	55	64	21-139	16	30				
Vinyl Chloride	114	117	50-154	1	30				
m+p-Xylene	109	106	44-137	4	30				
o-Xylene	105	102	42-137	4	30				
Batch number: 14162162401A	Sample number(s): 7488098-7488106					BKG: 7488099			
14a Moisture Content by 160.3						4.6	4.5	3	20
14a Moisture Content by 160.3						4.6	4.5	3	20
14a Moisture Content by 160.3						4.6	4.5	3	20

Surrogate Quality Control

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479554
Reported: 06/16/14 at 07:36 PM

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12a Volatile Organics EPA8260B
Batch number: B141612AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7488098	106	108	100	98
7488099	104	100	99	94
7488100	101	100	104	101
7488101	102	99	102	99
7488102	104	101	100	93
7488103	104	101	99	95
7488104	105	102	98	95
7488105	105	104	102	91
7488106	105	99	98	93
Blank	104	104	100	96
LCS	108	113	103	103
MS	101	100	104	101
MSD	102	99	102	99
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141562AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7488097	101	100	96	93
7488107	100	99	97	95
7488108	101	99	97	94
7488109	102	99	96	94
7488110	103	99	96	94
Blank	100	98	97	95
LCS	100	98	97	98
LCSD	99	100	98	99
Limits:	86-118	80-120	88-110	86-115

*- Outside of specification
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SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/4/2014
CarrierName: FedEx
AirbillNo: 770197160010

A-13013
G-1479554
S-7488097-110

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140604-04
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate. Nitrite. TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
TB3-060414	6/4/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																		X																		
SVL-577-SA5B-SB-5.3-5.8	6/4/14 08:40	SO	None	3 - Encore	10 day																		X																		
SVL-577-SA5B-SB-5.3-5.8	6/4/14 08:40	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture
SVL-586-SA5B-SB-3.75-4.25MS	6/4/14 09:00	SO	None	9 - Encore	10 day																		X																		MS/MSD
SVL-586-SA5B-SB-3.75-4.25MS	6/4/14 09:00	SO	None	1 - 8 oz glass	10 day																		X																		Soil Moisture. MS/MSD
SVL-986-SA5B-SB-3.75-4.25	6/4/14 09:05	SO	None	3 - Encore	10 day																		X																		
SVL-986-SA5B-SB-3.75-4.25	6/4/14 09:05	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture
SVL-576-SA5A-SB-2.5-3.0	6/4/14 10:15	SO	None	3 - Encore	10 day																		X																		
SVL-576-SA5A-SB-2.5-3.0	6/4/14 10:15	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture
SVL-571-SA5A-SB-2.5-3.0	6/4/14 11:26	SO	None	3 - Encore	10 day																		X																		
SVL-571-SA5A-SB-2.5-3.0	6/4/14 11:26	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture
SVL-574-SA5A-SB-1.5-2.0	6/4/14 11:10	SO	None	3 - Encore	10 day																		X																		
SVL-574-SA5A-SB-1.5-2.0	6/4/14 11:10	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture
SVL-566-SA5A-SB-3.0-3.5	6/4/14 13:15	SO	None	3 - Encore	10 day																		X																		
SVL-566-SA5A-SB-3.0-3.5	6/4/14 13:15	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture

Special Instructions:

Sampler: Va Vaughn Rob Ellis

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Steve Myers	06/04/14										
									Greg Nw	6.5.14	915

COC Rev 4 Soil Vapor 1 of 2

 1 of 1

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/4/2014
CarrierName: FedEx
AirbillNo: 770197160010

A - 13013
G - 1479554
S - 7488097-110

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140604-05
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
EB1-060414	6/4/14 07:05	WQ	HCl	3 - 40 mL Vial	10 day																		X																		
EB2-060414	6/4/14 07:20	WQ	HCl	3 - 40 mL Vial	10 day																		X																		
EB4-060414	6/4/14 07:08	WQ	HCl	3 - 40 mL Vial	10 day																		X																		
EB5-060414	6/4/14 07:22	WQ	HCl	3 - 40 mL Vial	10 day																		X																		

Special Instructions:

Sampler: VanVatthanaRob Ellis

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	06/04/14	1600									
									[illegible]	6.5.14	915

Soil Vapor 2 of 2

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Sample Administration Receipt Documentation Log

Doc Log ID: 16484

Group Number(s): 1479554

Client: CDM

SSFL

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	06/05/2014 9:15
Number of Packages:	4	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Brandy Barclay (2299) at 11:15 on 06/05/2014

Samples Chilled Details: SSFL

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT146	1.2	DT	Wet	Y	Bagged	N	N
2	DT146	1.5	DT	Wet	Y	Bagged	N	N
3	DT146	1.5	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

July 07, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 06/05/2014
Group Number: 1479557
SDG: PH217
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
EB3-060414 Water	7488113
TB2-060414 Water	7488114
SL-655-SA5C-TR-0.5 Soil	7488115
SL-655-SA5C-TR-5.0 Soil	7488116
SL-646-SA5C-TR-0.5 Soil	7488117
SL-646-SA5C-TR-5.0 Soil	7488118

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: EB3-060414 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7488113
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 10:30 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB364 SDG#: PH217-01EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		ug/l		ug/l	ug/l	ug/l	
10461	Acenaphthene	83-32-9	0.6	U	0.6	0.1		1
10461	Acenaphthylene	208-96-8	0.6	U	0.6	0.1		1
10461	Aniline	62-53-3	1	U	1	0.6		1
10461	Anthracene	120-12-7	0.6	U	0.6	0.1		1
10461	Benzidine	92-87-5	69	U	69	23		1
10461	Benzo(a)anthracene	56-55-3	0.6	U	0.6	0.1		1
10461	Benzo(a)pyrene	50-32-8	0.6	U	0.6	0.1		1
10461	Benzo(b)fluoranthene	205-99-2	0.6	U	0.6	0.1		1
10461	Benzo(g,h,i)perylene	191-24-2	0.6	U	0.6	0.1		1
10461	Benzo(k)fluoranthene	207-08-9	0.6	U	0.6	0.1		1
10461	Benzoic acid	65-85-0	17	U	17	7		1
10461	Benzyl alcohol	100-51-6	17	U	17	11		1
10461	1,1'-Biphenyl	92-52-4	1	U	1	0.6		1
10461	4-Bromophenyl-phenylether	101-55-3	1	U	1	0.6		1
10461	Butylbenzylphthalate	85-68-7	6	U	6	2		1
10461	Di-n-butylphthalate	84-74-2	6	U	6	2		1
10461	Carbazole	86-74-8	1	U	1	0.6		1
10461	4-Chloro-3-methylphenol	59-50-7	1	U	1	0.6		1
10461	4-Chloroaniline	106-47-8	1	U	1	0.6		1
10461	bis(2-Chloroethoxy)methane	111-91-1	1	U	1	0.6		1
10461	bis(2-Chloroethyl)ether	111-44-4	1	U	1	0.6		1
10461	bis(2-Chloroisopropyl)ether	39638-32-9	1	U	1	0.6		1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.							
10461	2-Chloronaphthalene	91-58-7	1	U	1	0.5		1
10461	2-Chlorophenol	95-57-8	1	U	1	0.6		1
10461	4-Chlorophenyl-phenylether	7005-72-3	1	U	1	0.6		1
10461	Chrysene	218-01-9	0.6	U	0.6	0.1		1
10461	Dibenz(a,h)anthracene	53-70-3	0.6	U	0.6	0.1		1
10461	Dibenzofuran	132-64-9	1	U	1	0.6		1
10461	1,2-Dichlorobenzene	95-50-1	1	U	1	0.6		1
10461	1,3-Dichlorobenzene	541-73-1	1	U	1	0.6		1
10461	1,4-Dichlorobenzene	106-46-7	1	U	1	0.6		1
10461	3,3'-Dichlorobenzidine	91-94-1	6	U	6	2		1
10461	2,4-Dichlorophenol	120-83-2	1	U	1	0.6		1
10461	2,6-Dichlorophenol	87-65-0	1	U	1	0.6		1
10461	Diethylphthalate	84-66-2	6	U	6	2		1
10461	2,4-Dimethylphenol	105-67-9	1	U	1	0.6		1
10461	3,5-Dimethylphenol	108-68-9	11	U	11	3		1
10461	Dimethylphthalate	131-11-3	6	U	6	2		1
10461	4,6-Dinitro-2-methylphenol	534-52-1	17	U	17	6		1
10461	2,4-Dinitrophenol	51-28-5	34	U	34	11		1
10461	1,2-Diphenylhydrazine	122-66-7	1	U	1	0.6		1
10461	bis(2-Ethylhexyl)phthalate	117-81-7	6	U	6	2		1
10461	Fluoranthene	206-44-0	0.6	U	0.6	0.1		1
10461	Fluorene	86-73-7	0.6	U	0.6	0.1		1
10461	Hexachlorobenzene	118-74-1	0.6	U	0.6	0.1		1
10461	Hexachlorobutadiene	87-68-3	1	U	1	0.6		1
10461	Hexachlorocyclopentadiene	77-47-4	17	U	17	6		1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB3-060414 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7488113
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 10:30 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB364 SDG#: PH217-01EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270D			ug/l		ug/l	ug/l	ug/l	
10461	Hexachloroethane	67-72-1	6	U	6	1		1
10461	Indeno(1,2,3-cd)pyrene	193-39-5	0.6	U	0.6	0.1		1
10461	Isophorone	78-59-1	1	U	1	0.6		1
10461	1-Methylnaphthalene	90-12-0	0.6	U	0.6	0.1		1
10461	2-Methylnaphthalene	91-57-6	0.6	U	0.6	0.1		1
10461	2-Methylphenol	95-48-7	1	U	1	0.6		1
10461	4-Methylphenol	106-44-5	1	U	1	0.6		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
10461	Naphthalene	91-20-3	0.6	U	0.6	0.1		1
10461	NDPA as diphenylamine	n.a.	6	U	6	2		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10461	2-Nitroaniline	88-74-4	1	U	1	0.6		1
10461	3-Nitroaniline	99-09-2	1	U	1	0.6		1
10461	4-Nitroaniline	100-01-6	1	U	1	0.6		1
10461	Nitrobenzene	98-95-3	1	U	1	0.6		1
10461	2-Nitrophenol	88-75-5	1	U	1	0.6		1
10461	4-Nitrophenol	100-02-7	34	U	34	11		1
10461	N-Nitrosodimethylamine	62-75-9	6	U	6	2		1
10461	N-Nitroso-di-n-propylamine	621-64-7	1	U	1	0.6		1
10461	N-Nitrosodiphenylamine	86-30-6	1	U	1	0.6		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10461	Di-n-octylphthalate	117-84-0	6	U	6	2		1
10461	Pentachlorophenol	87-86-5	6	U	6	1		1
10461	Phenanthrene	85-01-8	0.6	U	0.6	0.1		1
10461	Phenol	108-95-2	1	U	1	0.6		1
10461	Pyrene	129-00-0	0.6	U	0.6	0.1		1
10461	Pyridine	110-86-1	6	U	6	2		1
10461	1,2,4-Trichlorobenzene	120-82-1	1	U	1	0.6		1
10461	2,4,5-Trichlorophenol	95-95-4	1	U	1	0.6		1
10461	2,4,6-Trichlorophenol	88-06-2	1	U	1	0.6		1
	The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.							
GC/MS Semivolatiles SW-846 8270D SIM			ug/l		ug/l	ug/l	ug/l	
12971	Acenaphthene	83-32-9	0.057	U	0.057	0.011		1
12971	Acenaphthylene	208-96-8	0.057	U	0.057	0.011		1
12971	Anthracene	120-12-7	0.057	U	0.057	0.011		1
12971	Benzo(a)anthracene	56-55-3	0.057	U	0.057	0.011		1
12971	Benzo(a)pyrene	50-32-8	0.057	U	0.057	0.011		1
12971	Benzo(b)fluoranthene	205-99-2	0.057	U	0.057	0.011		1
12971	Benzo(e)pyrene	192-97-2	0.057	U	0.057	0.011		1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB3-060414 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7488113
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 10:30 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB364 SDG#: PH217-01EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/l		ug/l	ug/l	ug/l	
12971	Benzo(g,h,i)perylene	191-24-2	0.057	U	0.057	0.011		1
12971	Benzo(k)fluoranthene	207-08-9	0.057	U	0.057	0.011		1
12971	Butylbenzylphthalate	85-68-7	1.1	U	1.1	0.057		1
12971	Di-n-butylphthalate	84-74-2	0.14	J	1.1	0.057		1
12971	Chrysene	218-01-9	0.057	U	0.057	0.011		1
12971	Dibenz(a,h)anthracene	53-70-3	0.057	U	0.057	0.011		1
12971	Diethylphthalate	84-66-2	0.078	J	1.1	0.057		1
12971	Dimethylphthalate	131-11-3	1.1	U	1.1	0.057		1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.13	J	1.1	0.057		1
12971	Fluoranthene	206-44-0	0.057	U	0.057	0.011		1
12971	Fluorene	86-73-7	0.057	U	0.057	0.011		1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.057	U	0.057	0.011		1
12971	1-Methylnaphthalene	90-12-0	0.020	J	0.057	0.011		1
12971	2-Methylnaphthalene	91-57-6	0.028	J	0.057	0.011		1
12971	Naphthalene	91-20-3	0.073		0.057	0.034		1
12971	N-Nitrosodimethylamine	62-75-9	0.057	U	0.057	0.011		1
12971	Di-n-octylphthalate	117-84-0	1.1	U	1.1	0.057		1
12971	Phenanthrene	85-01-8	0.057	U	0.057	0.034		1
12971	Pyrene	129-00-0	0.057	U	0.057	0.011		1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is again outside of the acceptance limits. All results are reported from the first trial. Similar results were obtained in both trials.

GC Volatiles	**TPH GRO SW-8015B**		ug/l		ug/l	ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20		1
Explosives	**SW-846 8330A**		ug/l		ug/l	ug/l	ug/l	
10131	4-Amino-2,6-Dinitrotoluene	19406-51-0	0.60	U	0.60	0.30	10000000	1
10131	2-Amino-4,6-Dinitrotoluene	35572-78-2	0.60	U	0.60	0.20	10000000	1
10131	2,6-Diamino-4-nitrotoluene	59229-75-3	0.60	U	0.60	0.20	10000000	1
10131	2,4-Diamino-6-nitrotoluene	6629-29-4	0.60	U	0.60	0.20	10000000	1
10131	1,3-Dinitrobenzene	99-65-0	0.60	U	0.60	0.20	10000000	1
10131	2,4-Dinitrotoluene	121-14-2	0.60	U	0.60	0.20	10000000	1
10131	2,6-Dinitrotoluene	606-20-2	0.60	U	0.60	0.20	10000000	1
10131	HMX	2691-41-0	2.0	U	2.0	0.65	10000000	1
10131	Nitrobenzene	98-95-3	0.60	U	0.60	0.20	10000000	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB3-060414 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7488113
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 10:30 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB364 SDG#: PH217-01EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
Explosives	**SW-846 8330A**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10131	Nitroglycerin	55-63-0	15	U	15	5.2	10000000	1
10131	2-Nitrotoluene	88-72-2	0.60	U	0.60	0.20	10000000	1
10131	3-Nitrotoluene	99-08-1	1.2	U	1.2	0.40	10000000	1
10131	4-Nitrotoluene	99-99-0	1.2	U	1.2	0.60	10000000	1
10131	PETN	78-11-5	18	U	18	6.0	10000000	1
10131	RDX	121-82-4	0.60	U	0.60	0.20	10000000	1
10131	Tetryl	479-45-8	0.60	U	0.60	0.40	10000000	1
10131	1,3,5-Trinitrobenzene	99-35-4	0.60	U	0.60	0.20	10000000	1
10131	2,4,6-Trinitrotoluene	118-96-7	0.60	U	0.60	0.20	10000000	1
Herbicides	**SW-846 8151A**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10407	2,4-D	94-75-7	0.48	U	0.48	0.15		1
10407	Dalapon	75-99-0	1.2	U	1.2	0.24		1
10407	2,4-DB	94-82-6	0.96	U	0.96	0.29		1
10407	Dicamba	1918-00-9	0.29	U	0.29	0.077		1
10407	Dinoseb	88-85-7	0.48	U	0.48	0.12		1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.							
10407	2,4-DP (Dichlorprop)	120-36-5	0.48	U	0.48	0.15		1
10407	MCPA	94-74-6	190	U	190	48		1
10407	MCPP	93-65-2	190	U	190	48		1
10407	2,4,5-T	93-76-5	0.048	U	0.048	0.014		1
10407	2,4,5-TP	93-72-1	0.048	U	0.048	0.0096		1
Perchlorate	**SW-846 6850 1/2007**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
06386	6b Perchlorate (Method 6850)	14797-73-0	1.0	U	1.0	0.20		1
Pesticides/PCBs	**SW-846 8081B**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10589	Aldrin	309-00-2	0.0083	U	0.0083	0.0017		1
10589	Alpha BHC	319-84-6	0.0083	U	0.0083	0.0025		1
10589	Beta BHC	319-85-7	0.0083	U	0.0083	0.0028		1
10589	Gamma BHC - Lindane	58-89-9	0.0083	U	0.0083	0.0017		1
10589	Chlordane	57-74-9	0.42	U	0.42	0.13		1
10589	p,p-DDD	72-54-8	0.017	U	0.017	0.0042		1
10589	p,p-DDE	72-55-9	0.017	U	0.017	0.0042		1
10589	p,p-DDT	50-29-3	0.017	U	0.017	0.0043		1
10589	Delta BHC	319-86-8	0.0083	U	0.0083	0.0028		1
10589	Dieldrin	60-57-1	0.017	U	0.017	0.0044		1
10589	Endosulfan I	959-98-8	0.0083	U	0.0083	0.0036		1
10589	Endosulfan II	33213-65-9	0.017	U	0.017	0.013		1
10589	Endosulfan Sulfate	1031-07-8	0.017	U	0.017	0.0048		1

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Sample Description: EB3-060414 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7488113
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 10:30 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB364 SDG#: PH217-01EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10589	Endrin	72-20-8	0.017	U	0.017	0.0068		1
10589	Endrin Aldehyde	7421-93-4	0.083	U	0.083	0.017		1
10589	Endrin Ketone	53494-70-5	0.017	U	0.017	0.0042		1
10589	Heptachlor	76-44-8	0.0083	U	0.0083	0.0017		1
10589	Heptachlor Epoxide	1024-57-3	0.0083	U	0.0083	0.0019		1
10589	Methoxychlor	72-43-5	0.083	U	0.083	0.025		1
10589	Mirex	2385-85-5	0.042	U	0.042	0.0083		1
10589	Toxaphene	8001-35-2	0.83	U	0.83	0.25		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: Aldrin							
Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
13092	Aroclor 5432	63496-31-1	0.42	U	0.42	0.083		1
13092	Aroclor 5442	12642-23-8	0.42	U	0.42	0.083		1
13092	Aroclor 5460	11126-42-4	0.42	U	0.42	0.092		1
13092	PCB-1016	12674-11-2	0.42	U	0.42	0.083		1
13092	PCB-1221	11104-28-2	0.42	U	0.42	0.083		1
13092	PCB-1232	11141-16-5	0.42	U	0.42	0.17		1
13092	PCB-1242	53469-21-9	0.42	U	0.42	0.083		1
13092	PCB-1248	12672-29-6	0.42	U	0.42	0.083		1
13092	PCB-1254	11097-69-1	0.42	U	0.42	0.083		1
13092	PCB-1260	11096-82-5	0.42	U	0.42	0.13		1
13092	PCB-1262	37324-23-5	0.42	U	0.42	0.17		1
13092	PCB-1268	11100-14-4	0.42	U	0.42	0.13		1
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
12926	Diethylene glycol	111-46-6	10	U	10	8.0		1
12926	Ethylene glycol	107-21-1	10	U	10	8.0		1
12926	Propylene glycol	57-55-6	10	U	10	8.0		1
12926	Triethylene glycol	112-27-6	10	U	10	8.0		1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
10319	m-Terphenyl	92-06-8	0.0048	U	0.0048	0.0019		1
10319	o-Terphenyl	84-15-1	0.0048	U	0.0048	0.0019		1
10319	p-Terphenyl	92-94-4	0.0048	U	0.0048	0.0019		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.097	U	0.097	0.048		1
10365	EFH (C15-C20)	n.a.	0.097	U	0.097	0.048		1
10365	EFH (C21-C30)	n.a.	0.097	U	0.097	0.048		1
10365	EFH (C30 - C40)	n.a.	0.48	U	0.48	0.097		1
10365	EFH (C8-C11)	n.a.	0.097	U	0.097	0.048		1
13205	EFH C12-C14 w/ SiGel	n.a.	0.097	U	0.097	0.048		1
13205	EFH C15-C20 w/ SiGel	n.a.	0.097	U	0.097	0.048		1

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Sample Description: EB3-060414 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7488113
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 10:30 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB364 SDG#: PH217-01EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
13205	EFH C21-C30 w/ SiGel	n.a.	0.097	U	0.097	0.048		1
13205	EFH C30-C40 w/ SiGel	n.a.	0.48	U	0.48	0.097		1
13205	EFH C8-C11 w/ SiGel	n.a.	0.097	U	0.097	0.048		1
	The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted and the QC is again outside of the acceptance limits. The data is reported from the initial trial. The reverse surrogate, capric acid, is present at <1%. The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted and the QC is again outside of the acceptance limits. The data is reported from the initial trial.							
Metals	**SW-846 6010C**		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400	U	0.400	0.0828		1
07044	Antimony	7440-36-0	0.0400	U	0.0400	0.0053		1
07035	Arsenic	7440-38-2	0.0400	U	0.0400	0.0068		1
07046	Barium	7440-39-3	0.00070	J	0.0100	0.00033		1
07047	Beryllium	7440-41-7	0.0100	U	0.0100	0.00067		1
08014	Boron	7440-42-8	0.100	U	0.100	0.0084		1
07049	Cadmium	7440-43-9	0.0100	U	0.0100	0.00076		1
01750	Calcium	7440-70-2	0.151	J	0.400	0.0334		1
07051	Chromium	7440-47-3	0.0300	U	0.0300	0.0016		1
07052	Cobalt	7440-48-4	0.0100	U	0.0100	0.0013		1
07053	Copper	7440-50-8	0.0200	U	0.0200	0.0027		1
01754	Iron	7439-89-6	0.400	U	0.400	0.0430		1
07055	Lead	7439-92-1	0.0300	U	0.0300	0.0047		1
01756	Lithium	7439-93-2	0.0400	U	0.0400	0.0047		1
01757	Magnesium	7439-95-4	0.200	U	0.200	0.0167		1
07058	Manganese	7439-96-5	0.0016	J	0.0100	0.00083		1
07060	Molybdenum	7439-98-7	0.0200	U	0.0200	0.0017		1
07061	Nickel	7440-02-0	0.0200	U	0.0200	0.0015		1
10143	Phosphorus	7723-14-0	0.200	U	0.200	0.0418		1
01762	Potassium	7440-09-7	1.00	U	1.00	0.0980		1
01767	Sodium	7440-23-5	2.00	U	2.00	0.167		1
07069	Tin	7440-31-5	0.0400	U	0.0400	0.0029		1
07070	Titanium	7440-32-6	0.0200	U	0.0200	0.0017		1
07071	Vanadium	7440-62-2	0.0100	U	0.0100	0.0020		1
07072	Zinc	7440-66-6	0.0400	U	0.0400	0.0020		1
10144	Zirconium	7440-67-7	0.0113	J	0.100	0.0084		1
	SW-846 6020A		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040	U	0.0040	0.00050		1
06042	Silver	7440-22-4	0.0010	U	0.0010	0.00011		1
06044	Strontium	7440-24-6	0.00069	J	0.0020	0.00034		1
06045	Thallium	7440-28-0	0.0010	U	0.0010	0.00015		1

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Sample Description: EB3-060414 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7488113
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 10:30 by AP

Submitted: 06/05/2014 09:15
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CDM Federal Programs Corp.
3201 Jermantown Road
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Fairfax VA 22030

EB364 SDG#: PH217-01EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 7470A**		**mg/l**	**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A	7439-97-6	0.00020 U	0.00020	0.000060		1
Wet Chemistry	**SW-846 7199**		**ug/l**	**ug/l**	**ug/l**	**ug/l**	
06467	2b Chromium VI by EPA 7199	18540-29-9	10.0 U	10.0	5.0		1
	SW-846 9040C		**Std. Units**	**Std. Units**	**Std. Units**	**Std. Units**	
12152	28b pH (9040B and 9040C)	n.a.	6.4	0.010	0.010		1

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EB364 SDG#: PH217-01EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	**pg/l**	
10915	2378-TCDD	1746-01-6	0.262	JQ	1.91	0.169		1
10915	12378-PeCDD	40321-76-4	0.331	JB	9.57	0.187		1
10915	123478-HxCDD	39227-28-6	0.209	JBQ	9.57	0.148		1
10915	123678-HxCDD	57653-85-7	0.313	JQ	9.57	0.149		1
10915	123789-HxCDD	19408-74-3	9.57	U	9.57	0.151		1
10915	1234678-HpCDD	35822-46-9	0.541	JBQ	9.57	0.159		1
10915	OCDD	3268-87-9	2.25	JB	19.1	0.216		1
10915	2378-TCDF	51207-31-9	1.91	U	1.91	0.143		1
10915	12378-PeCDF	57117-41-6	0.647	JBQ	9.57	0.0998		1
10915	23478-PeCDF	57117-31-4	0.375	JB	9.57	0.0997		1
10915	123478-HxCDF	70648-26-9	0.549	JBQ	9.57	0.104		1
10915	123678-HxCDF	57117-44-9	0.379	JBQ	9.57	0.0955		1
10915	123789-HxCDF	72918-21-9	0.423	JB	9.57	0.0984		1
10915	234678-HxCDF	60851-34-5	0.388	JB	9.57	0.0999		1
10915	1234678-HpCDF	67562-39-4	0.539	JBQ	9.57	0.0657		1
10915	1234789-HpCDF	55673-89-7	0.408	JBQ	9.57	0.0940		1
10915	OCDF	39001-02-0	1.21	JBQ	19.1	0.237		1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	**pg/l**	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	0.525					1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	91	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	86	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	60	17 - 157
13C12-2378-TCDF	84	24 - 169
13C12-12378-PeCDF	91	24 - 185
13C12-23478-PeCDF	87	21 - 178
13C12-123478-HxCDF	87	26 - 152
13C12-123678-HxCDF	91	26 - 123
13C12-234678-HxCDF	86	28 - 136
13C12-123789-HxCDF	99	29 - 147
13C12-1234678-HpCDF	85	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	55	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

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Sample Description: EB3-060414 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7488113
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

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EB364 SDG#: PH217-01EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Action Limit	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

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LL Sample # WW 7488113
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EB364 SDG#: PH217-01EB

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10461	8b SVOCs by EPA 8270D	SW-846 8270D	1	14161WAI026	06/18/2014 01:25	Catherine E Bachman	1
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14161WAH026	06/12/2014 06:16	Brian K Graham	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	14161WAH026	06/11/2014 09:30	David S Schrum	1
11010	8270D BNA Extraction	SW-846 3510C	1	14161WAI026	06/11/2014 09:30	David S Schrum	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14157A94A	06/09/2014 13:35	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14157A94A	06/09/2014 13:35	Marie D Beamenderfer	1
10131	18b Energetics by 8330A	SW-846 8330A	1	141610009A	06/12/2014 03:31	James H Place	1
10407	24b Herbicides by EPA 8151A	SW-846 8151A	1	141600003A	06/11/2014 08:33	Lisa A Reinert	1
06386	6b Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141600002A	06/11/2014 13:19	Richard A Shober	1
10589	22b Pesticides by EPA 8081B	SW-846 8081B	1	141610004A	06/11/2014 11:56	Jamie L Brillhart	1
13092	21b PCBs and PCTs 8082A	SW-846 8082A	1	141610003A	06/11/2014 05:52	Monica M Souders	1
13093	PCB/PCT Waters Update IV	SW-846 3510C	1	141610003A	06/10/2014 16:00	Seth A Farrier	1
11120	Pesticide Waters Update IV Ext	SW-846 3510C	1	141610004A	06/10/2014 16:00	Seth A Farrier	1
00816	Water Sample Herbicide Extract	SW-846 8151A	1	141600003A	06/09/2014 13:50	Kelli M Barto	1
11122	Energetics Extraction	SW-846 8330	1	141610009A	06/11/2014 07:00	Kerrie A Freeburn	1
12926	20b Glycols by EPA 8015C	SW-846 8015C Feb 2007 Rev 3	1	141600045A	06/09/2014 18:25	Tyler O Griffin	1
10319	23b Terphenyls by 8015B	SW-846 8015B	1	141600016A	06/10/2014 19:16	Glorines Suarez-Rivera	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141600042A	06/11/2014 15:12	Heather E Williams	1
13205	10b TPH-DRO (w/Si Gel)	SW-846 8015B modified	1	141600043A	06/13/2014 04:42	Heather E Williams	1
13212	EFH Water Ext. w/SiGel	SW-846 3510C	1	141600043A	06/10/2014 09:30	David S Schrum	1
11203	EFH Waters Extraction	SW-846 3510C	1	141600042A	06/10/2014 09:30	David S Schrum	1
10304	Terphenyls water prep	SW-846 3510C	1	141600016A	06/09/2014 22:00	Elaine F Stoltzfus	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14162001	06/13/2014 04:50	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B October 1994	1	14162001	06/11/2014 10:30	Ginelle L McQuaid	1
01743	Aluminum	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1
07044	Antimony	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1

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LL Sample # WW 7488113
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EB364 SDG#: PH217-01EB

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1
07046	Barium	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1
07047	Beryllium	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1
08014	Boron	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1
07049	Cadmium	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1
01750	Calcium	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1
07051	Chromium	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1
07052	Cobalt	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1
07053	Copper	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1
01754	Iron	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1
07055	Lead	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1
01756	Lithium	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1
01757	Magnesium	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1
07058	Manganese	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1
07060	Molybdenum	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1
07061	Nickel	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1
10143	Phosphorus	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1
01762	Potassium	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1
01767	Sodium	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1
07069	Tin	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1
07070	Titanium	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1
07071	Vanadium	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1
07072	Zinc	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1
10144	Zirconium	SW-846 6010C	1	141640635001	06/16/2014 22:45	John P Hook	1
06041	Selenium	SW-846 6020A	1	141640639001B	06/17/2014 04:28	Choon Y Tian	1
06042	Silver	SW-846 6020A	1	141640639001A	06/17/2014 04:28	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	141640639001A	06/17/2014 04:28	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	141640639001A	06/17/2014 04:28	Choon Y Tian	1
00259	3b Mercury 7470A	SW-846 7470A	1	141645713003	06/17/2014 07:38	Damary Valentin	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	141640635001	06/16/2014 09:40	Micaela L Dishong	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	141640639001	06/16/2014 09:05	Micaela L Dishong	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	141645713003	06/16/2014 11:46	Micaela L Dishong	1
06467	2b Chromium VI by EPA 7199	SW-846 7199	1	14156987301A	06/05/2014 11:53	James S Mathiot	1
12152	28b pH (9040B and 9040C)	SW-846 9040C	1	14156004101A	06/05/2014 14:35	Michele L Graham	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: TB2-060414 Water
SSFL Phase 3 Subarea 5C

LL Sample # WW 7488114
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 08:00

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB264 SDG#: PH217-02TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20		1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14163A94A	06/13/2014	12:22	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14163A94A	06/13/2014	12:22	Marie D Beamenderfer	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-655-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488115
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 07:45 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65505 SDG#: PH217-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		ug/kg		ug/kg	ug/kg	ug/kg	
10726	Aniline	62-53-3	350	U	350	180		1
10726	Benzidine	92-87-5	1,800	U	1,800	740		1
10726	Benzoic acid	65-85-0	530	U	530	180		1
10726	Benzyl alcohol	100-51-6	350	U	350	180		1
10726	1,1'-Biphenyl	92-52-4	35	U	35	18		1
10726	4-Bromophenyl-phenylether	101-55-3	35	U	35	18		1
10726	2-butoxy-Ethanol	111-76-2	180	U	180	180		1
	2-butoxy-Ethanol was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.							
10726	Carbazole	86-74-8	35	U	35	18		1
10726	4-Chloro-3-methylphenol	59-50-7	35	U	35	18		1
10726	4-Chloroaniline	106-47-8	35	U	35	18		1
10726	bis(2-Chloroethoxy)methane	111-91-1	35	U	35	18		1
10726	bis(2-Chloroethyl)ether	111-44-4	35	U	35	18		1
10726	bis(2-Chloroisopropyl)ether	39638-32-9	35	U	35	18		1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.							
10726	2-Chloronaphthalene	91-58-7	35	U	35	7		1
10726	2-Chlorophenol	95-57-8	35	U	35	18		1
10726	4-Chlorophenyl-phenylether	7005-72-3	35	U	35	18		1
10726	Dibenzofuran	132-64-9	35	U	35	18		1
10726	1,2-Dichlorobenzene	95-50-1	35	U	35	18		1
10726	1,3-Dichlorobenzene	541-73-1	35	U	35	18		1
10726	1,4-Dichlorobenzene	106-46-7	35	U	35	18		1
10726	3,3'-Dichlorobenzidine	91-94-1	350	U	350	110		1
10726	2,4-Dichlorophenol	120-83-2	35	U	35	18		1
10726	2,6-Dichlorophenol	87-65-0	35	U	35	18		1
10726	2,4-Dimethylphenol	105-67-9	35	U	35	18		1
10726	3,5-Dimethylphenol	108-68-9	180	U	180	35		1
10726	4,6-Dinitro-2-methylphenol	534-52-1	530	U	530	180		1
10726	2,4-Dinitrophenol	51-28-5	700	U	700	320		1
10726	1,2-Diphenylhydrazine	122-66-7	35	U	35	18		1
10726	Hexachlorobenzene	118-74-1	18	U	18	4		1
10726	Hexachlorobutadiene	87-68-3	35	U	35	18		1
10726	Hexachlorocyclopentadiene	77-47-4	530	U	530	180		1
10726	Hexachloroethane	67-72-1	180	U	180	35		1
10726	Isophorone	78-59-1	35	U	35	18		1
10726	2-Methylphenol	95-48-7	35	U	35	18		1
10726	4-Methylphenol	106-44-5	35	U	35	18		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
10726	NDPA as diphenylamine	n.a.	180	U	180	35		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10726	2-Nitroaniline	88-74-4	35	U	35	18		1
10726	3-Nitroaniline	99-09-2	180	U	180	71		1
10726	4-Nitroaniline	100-01-6	180	U	180	71		1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-655-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488115
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 07:45 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65505 SDG#: PH217-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		ug/kg		ug/kg	ug/kg	ug/kg	
10726	Nitrobenzene	98-95-3	35	U	35	18		1
10726	2-Nitrophenol	88-75-5	35	U	35	18		1
10726	4-Nitrophenol	100-02-7	530	U	530	180		1
10726	N-Nitroso-di-n-propylamine	621-64-7	35	U	35	18		1
10726	N-Nitrosodiphenylamine	86-30-6	35	U	35	18		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10726	Pentachlorophenol	87-86-5	180	U	180	35		1
10726	Phenol	108-95-2	35	U	35	18		1
10726	2-phenoxy-Ethanol	122-99-6	180	U	180	180		1
	2-phenoxy-Ethanol was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.							
10726	Pyridine	110-86-1	180	U	180	71		1
10726	1,2,3,4-Tetrahydronaphthalene	119-64-2	180	U	180	35		1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.							
10726	1,2,4-Trichlorobenzene	120-82-1	35	U	35	18		1
10726	2,4,5-Trichlorophenol	95-95-4	35	U	35	18		1
10726	2,4,6-Trichlorophenol	88-06-2	35	U	35	18		1
	The QC limits for 1,2,3,4-tetrahydronaphthalene are advisory.							
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/kg		ug/kg	ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.71		1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35		1
12969	Anthracene	120-12-7	1.8	U	1.8	0.35		1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.71		1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.71		1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.71		1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5		1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.71		1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.71		1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.4		1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.4		1
12969	Chrysene	218-01-9	1.6	J	1.8	0.35		1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.71		1
12969	Diethylphthalate	84-66-2	19	U	19	6.4		1
12969	Dimethylphthalate	131-11-3	19	U	19	6.4		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.4		1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.71		1
12969	Fluorene	86-73-7	1.8	U	1.8	0.71		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.71		1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.71		1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.71		1
12969	Morpholine	110-91-8	21	U	21	21		1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.71		1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.71		1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.4		1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.71		1
12969	Pyrene	129-00-0	13		1.8	0.71		1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-655-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488115
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 07:45 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65505 SDG#: PH217-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: N-Nitrosodimethylamine							
Explosives	**SW-846 8330A**		ug/kg		ug/kg	ug/kg	ug/kg	
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	320	U	320	160	10000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	320	U	320	110	10000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	430	U	430	210	10000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	430	U	430	210	10000000	1
10132	1,3-Dinitrobenzene	99-65-0	320	U	320	110	10000000	1
10132	2,4-Dinitrotoluene	121-14-2	320	U	320	110	10000000	1
10132	2,6-Dinitrotoluene	606-20-2	320	U	320	110	10000000	1
10132	HMX	2691-41-0	430	U	430	210	10000000	1
10132	Nitrobenzene	98-95-3	320	U	320	110	10000000	1
10132	Nitroglycerin	55-63-0	2,100	U	2,100	1,100	10000000	1
10132	2-Nitrotoluene	88-72-2	320	U	320	210	10000000	1
10132	3-Nitrotoluene	99-08-1	320	U	320	270	10000000	1
10132	4-Nitrotoluene	99-99-0	320	U	320	210	10000000	1
10132	PETN	78-11-5	2,100	U	2,100	1,100	10000000	1
10132	RDX	121-82-4	320	U	320	140	10000000	1
10132	Tetryl	479-45-8	320	U	320	170	10000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	320	U	320	110	10000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	320	U	320	110	10000000	1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: 1,3-Dinitrobenzene							
Herbicides	**SW-846 8151A**		ug/kg		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	38	U	38	13		1
10401	Dalapon	75-99-0	96	U	96	47		1
10401	2,4-DB	94-82-6	19		18	6.6		1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-655-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488115
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 07:45 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65505 SDG#: PH217-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Herbicides	**SW-846 8151A**		ug/kg		ug/kg	ug/kg	ug/kg	
10401	Dicamba	1918-00-9	13	U	13	4.3		1
10401	Dinoseb	88-85-7	26	U	26	9.6		1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.							
10401	2,4-DP (Dichlorprop)	120-36-5	18	U	18	9.6		1
10401	MCPA	94-74-6	2,700	U	2,700	810		1
10401	MCPP (Mecoprop)	93-65-2	2,700	U	2,700	800		1
10401	2,4,5-T	93-76-5	1.8	U	1.8	0.87		1
10401	2,4,5-TP	93-72-1	1.8	U	1.8	0.80		1
Perchlorate	**SW-846 6850 1/2007**		ug/kg		ug/kg	ug/kg	ug/kg	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.3	U	5.3	2.2		1
Pesticides/PCBs	**SW-846 8081B**		ug/kg		ug/kg	ug/kg	ug/kg	
10590	Aldrin	309-00-2	0.88	U	0.88	0.18		1
10590	Alpha BHC	319-84-6	0.88	U	0.88	0.18		1
10590	Beta BHC	319-85-7	1.4	J	2.0	1.0		1
10590	Gamma BHC - Lindane	58-89-9	0.88	U	0.88	0.18		1
10590	Chlordane	57-74-9	18	U	18	4.2		1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.35		1
10590	p,p-DDE	72-55-9	1.8	U	1.8	0.35		1
10590	p,p-DDT	50-29-3	1.8	U	1.8	0.37		1
10590	Delta BHC	319-86-8	0.88	U	0.88	0.48		1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.35		1
10590	Endosulfan I	959-98-8	0.88	U	0.88	0.23		1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.35		1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.35		1
10590	Endrin	72-20-8	1.8	U	1.8	0.35		1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.35		1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.63		1
10590	Heptachlor	76-44-8	0.88	U	0.88	0.18		1
10590	Heptachlor Epoxide	1024-57-3	0.88	U	0.88	0.18		1
10590	Methoxychlor	72-43-5	7.1	U	7.1	1.8		1
10590	Mirex	2385-85-5	1.8	U	1.8	0.37		1
10590	Toxaphene	8001-35-2	35	U	35	15		1
Pesticides/PCBs	**SW-846 8082A**		ug/kg		ug/kg	ug/kg	ug/kg	
13099	Aroclor 5432	63496-31-1	35	U	35	11		1
13099	Aroclor 5442	12642-23-8	35	U	35	11		1
13099	Aroclor 5460	11126-42-4	35	U	35	11		1
13099	PCB-1016	12674-11-2	18	U	18	3.5		1
13099	PCB-1221	11104-28-2	18	U	18	5.4		1
13099	PCB-1232	11141-16-5	18	U	18	4.4		1
13099	PCB-1242	53469-21-9	18	U	18	4.4		1
13099	PCB-1248	12672-29-6	18	U	18	3.5		1
13099	PCB-1254	11097-69-1	18	U	18	4.7		1
13099	PCB-1260	11096-82-5	18	U	18	4.1		1
13099	PCB-1262	37324-23-5	18	U	18	3.5		1
13099	PCB-1268	11100-14-4	18	U	18	3.5		1

For all QC parameters which are outside project defined limits,

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-655-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488115
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 07:45 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65505 SDG#: PH217-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
	but within the laboratory statistical limits, no corrective action is taken.							
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12934	Diethylene glycol	111-46-6	11	U	11	5.3		1
12934	Ethylene glycol	107-21-1	11	U	11	5.3		1
12934	Propylene glycol	57-55-6	11	U	11	5.3		1
12934	Triethylene glycol	112-27-6	11	U	11	5.3		1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	0.51		0.18	0.071		1
10318	o-Terphenyl	84-15-1	0.18	U	0.18	0.071		1
10318	p-Terphenyl	92-94-4	0.98		0.18	0.071		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1		1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1		1
12952	EFH (C21-C30)	n.a.	3.5	J	5.3	2.1		1
12952	EFH (C30-C40)	n.a.	5.0	J	11	4.3		1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1		1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1		1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1		1
13197	EFH C21-C30 w/ SiGel	n.a.	5.3	U	5.3	2.1		1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.3		1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1		1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	19,000		40.9	7.38		1
06944	Antimony	7440-36-0	4.09	U	4.09	0.757		1
06935	Arsenic	7440-38-2	2.39	J	4.09	0.716		1
06946	Barium	7440-39-3	109		1.02	0.0338		1
06947	Beryllium	7440-41-7	0.743	J	1.02	0.0685		1
07914	Boron	7440-42-8	8.10	J	10.2	0.859		1
06949	Cadmium	7440-43-9	0.301	J	1.02	0.0777		1
01650	Calcium	7440-70-2	3,380		20.5	3.42		1
06951	Chromium	7440-47-3	21.8		3.07	0.164		1
06952	Cobalt	7440-48-4	6.35		1.02	0.101		1
06953	Copper	7440-50-8	10.2		2.05	0.297		1
01654	Iron	7439-89-6	23,100		40.9	3.70		1
06955	Lead	7439-92-1	9.94		3.07	0.511		1
01656	Lithium	7439-93-2	20.6		4.1	0.35		1
01657	Magnesium	7439-95-4	4,400		10.2	1.71		1
06958	Manganese	7439-96-5	337		1.02	0.0849		1
06960	Molybdenum	7439-98-7	0.466	J	2.05	0.174		1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-655-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488115
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 07:45 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65505 SDG#: PH217-03

CAT No.	Analysis Name		CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals		**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06961	Nickel		7440-02-0	12.4		2.05	0.133		1
10145	Phosphorus		7723-14-0	244		10.2	2.96		1
01662	Potassium		7440-09-7	2,970		102	8.53		1
01667	Sodium		7440-23-5	84.0	J	102	17.1		1
06969	Tin		7440-31-5	3.42	J	10.2	0.225		1
06970	Titanium		7440-32-6	1,050		1.02	0.174		1
06971	Vanadium		7440-62-2	41.3		1.02	0.133		1
06972	Zinc		7440-66-6	52.2		4.09	0.205		1
10146	Zirconium		7440-67-7	3.91	J	5.11	0.859		1
		SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium		7782-49-2	0.306	J	0.409	0.102		2
06142	Silver		7440-22-4	0.0397	J	0.205	0.0266		2
06144	Strontium		7440-24-6	23.0		0.409	0.0696		2
06145	Thallium		7440-28-0	0.306		0.205	0.0307		2
		SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A		7439-97-6	0.0165	U	0.0165	0.0099		1
Wet Chemistry		**SW-846 7199**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05892	2a Chromium VI by EPA 7199		18540-29-9	0.29	J	0.44	0.15		1
		SW-846 9045D modified		**Std. Units**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D		n.a.	7.77		0.0100	0.0100		1
	The pH was measured in water at 21.9 C.								
Wet Chemistry		**EPA 160.3 modified**		**%**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3		n.a.	6.0		0.10	0.10		1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.								

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-655-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488115
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 07:45 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65505 SDG#: PH217-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0903	J	1.02	0.0227		1
11031	12378-PeCDD	40321-76-4	0.152	JB	5.08	0.0301		1
11031	123478-HxCDD	39227-28-6	0.0708	JQ	5.08	0.0256		1
11031	123678-HxCDD	57653-85-7	0.214	JBQ	5.08	0.0254		1
11031	123789-HxCDD	19408-74-3	0.320	JBQ	5.08	0.0267		1
11031	1234678-HpCDD	35822-46-9	1.27	JBQ	5.08	0.0351		1
11031	OCDD	3268-87-9	11.2	B	10.2	0.0323		1
11031	2378-TCDF	51207-31-9	0.0773	J	1.02	0.0236		1
11031	12378-PeCDF	57117-41-6	0.293	JB	5.08	0.0155		1
11031	23478-PeCDF	57117-31-4	0.157	JB	5.08	0.0175		1
11031	123478-HxCDF	70648-26-9	0.150	JB	5.08	0.0267		1
11031	123678-HxCDF	57117-44-9	0.126	JBQ	5.08	0.0235		1
11031	123789-HxCDF	72918-21-9	0.204	JB	5.08	0.0266		1
11031	234678-HxCDF	60851-34-5	0.0890	JBQ	5.08	0.0261		1
11031	1234678-HpCDF	67562-39-4	0.208	JBQ	5.08	0.0196		1
11031	1234789-HpCDF	55673-89-7	0.0645	JB	5.08	0.0431		1
11031	OCDF	39001-02-0	0.496	JB	10.2	0.0479		1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.345					1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	62	25 - 181
13C12-123478-HxCDD	72	32 - 141
13C12-123678-HxCDD	75	28 - 130
13C12-123789-HxCDD	72	28 - 130
13C12-1234678-HpCDD	70	23 - 140
13C12-OCDD	59	17 - 157
13C12-2378-TCDF	62	24 - 169
13C12-12378-PeCDF	68	24 - 185
13C12-23478-PeCDF	56	21 - 178
13C12-123478-HxCDF	62	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	62	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	90	28 - 143
13C12-1234789-HpCDF	48	26 - 138
13C12-OCDF	42	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-655-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488115
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 07:45 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65505 SDG#: PH217-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Action Limit	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-655-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488115
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 07:45 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65505 SDG#: PH217-03

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	8a SVOCs by EPA 8270D	SW-846 8270D	1	14163SLC026	06/15/2014 21:43	Holly Berry	1
12969	7a SVOC SIM 8270D	SW-846 8270D SIM	1	14163SLB026	06/17/2014 10:40	Mark A Clark	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	14163SLC026	06/12/2014 17:00	JoElla L Rice	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14163SLB026	06/12/2014 17:00	JoElla L Rice	1
10132	24a Energetics by 8330A	SW-846 8330A	1	141610011A	06/14/2014 07:44	James H Place	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	141560024A	06/07/2014 04:52	Lisa A Reinert	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141580001A	06/09/2014 15:33	Richard A Shober	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141580004A	06/10/2014 19:05	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141580012A	06/10/2014 06:43	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141580012A	06/09/2014 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141580004A	06/08/2014 08:50	Katheryne V Sponheimer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	141560024A	06/06/2014 10:00	William H Saadeh	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141580001A	06/09/2014 06:15	Maria Davenport	1
11137	Energetics Extraction	SW-846 8330	1	141610011A	06/11/2014 07:30	Kerrie A Freeburn	1
12934	26a Glycols by EPA 8015C	SW-846 8015C Feb 2007 Rev 3	1	141620008A	06/12/2014 16:48	Tyler O Griffin	1
10318	27a Terphenyls by 8015B	SW-846 8015B	1	141600033A	06/13/2014 14:58	Glorines Suarez-Rivera	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141600037A	06/12/2014 18:37	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141600038A	06/13/2014 06:30	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141600038A	06/10/2014 16:55	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141600037A	06/10/2014 16:55	JoElla L Rice	1
10303	Terphenyls soil prep	SW-846 3550B	1	141600033A	06/10/2014 10:00	Denise L Trimby	1
12933	Glycols Sonication Extraction	SW-846 3550C	1	141620008A	06/11/2014 18:45	David V Hershey Jr	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14162002	06/13/2014 19:40	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14162002	06/11/2014 11:30	Brett M Weidman	1
01643	Aluminum	SW-846 6010C	1	141600637001	06/11/2014 08:37	Eric L Eby	1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-655-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488115
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 07:45 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65505 SDG#: PH217-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06944	Antimony	SW-846 6010C	1	141600637001	06/11/2014 08:37	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141600637001	06/11/2014 08:37	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141600637001	06/11/2014 08:37	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141600637001	06/11/2014 08:37	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141600637001	06/11/2014 08:37	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141600637001	06/11/2014 12:28	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141600637001	06/11/2014 08:37	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141600637001	06/11/2014 08:37	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141600637001	06/11/2014 08:37	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141600637001	06/11/2014 08:37	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141600637001	06/11/2014 08:37	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141600637001	06/11/2014 08:37	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141600637001	06/11/2014 08:37	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141600637001	06/11/2014 08:37	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141600637001	06/11/2014 08:37	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141600637001	06/11/2014 08:37	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141600637001	06/11/2014 08:37	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141600637001	06/11/2014 08:37	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141600637001	06/11/2014 08:37	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141600637001	06/11/2014 08:37	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141600637001	06/11/2014 08:37	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141600637001	06/11/2014 08:37	Eric L Eby	1
06971	Vanadium	SW-846 6010C	1	141600637001	06/11/2014 08:37	Eric L Eby	1
06972	Zinc	SW-846 6010C	1	141600637001	06/11/2014 08:37	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141600637001	06/11/2014 08:37	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141600637001B	06/11/2014 05:46	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141600637001A	06/11/2014 05:46	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141600637001A	06/11/2014 05:46	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141600637001A	06/11/2014 05:46	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141600638001	06/11/2014 09:00	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141600637001	06/10/2014 11:56	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141600638001	06/10/2014 13:25	James L Mertz	1
05892	2a Chromium VI by EPA 7199	SW-846 7199	2	14160243201A	06/11/2014 19:33	Clinton M Wilson	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14156039402A	06/05/2014 20:00	Luz M Groff	1
02432	Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	14160243201A	06/09/2014 20:00	Daniel S Smith	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14169162401A	06/18/2014 20:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-655-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488116
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 08:00 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65550 SDG#: PH217-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270D			ug/kg		ug/kg	ug/kg	ug/kg	
10726	Aniline	62-53-3	340	U	340	170		1
10726	Benzidine	92-87-5	1,700	U	1,700	720		1
10726	Benzoic acid	65-85-0	520	U	520	170		1
10726	Benzyl alcohol	100-51-6	340	U	340	170		1
10726	1,1'-Biphenyl	92-52-4	34	U	34	17		1
10726	4-Bromophenyl-phenylether	101-55-3	34	U	34	17		1
10726	2-butoxy-Ethanol	111-76-2	180	U	180	180		1
	2-butoxy-Ethanol was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.							
10726	Carbazole	86-74-8	34	U	34	17		1
10726	4-Chloro-3-methylphenol	59-50-7	34	U	34	17		1
10726	4-Chloroaniline	106-47-8	34	U	34	17		1
10726	bis(2-Chloroethoxy)methane	111-91-1	34	U	34	17		1
10726	bis(2-Chloroethyl)ether	111-44-4	34	U	34	17		1
10726	bis(2-Chloroisopropyl)ether	39638-32-9	34	U	34	17		1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.							
10726	2-Chloronaphthalene	91-58-7	34	U	34	7		1
10726	2-Chlorophenol	95-57-8	34	U	34	17		1
10726	4-Chlorophenyl-phenylether	7005-72-3	34	U	34	17		1
10726	Dibenzofuran	132-64-9	34	U	34	17		1
10726	1,2-Dichlorobenzene	95-50-1	34	U	34	17		1
10726	1,3-Dichlorobenzene	541-73-1	34	U	34	17		1
10726	1,4-Dichlorobenzene	106-46-7	34	U	34	17		1
10726	3,3'-Dichlorobenzidine	91-94-1	340	U	340	100		1
10726	2,4-Dichlorophenol	120-83-2	34	U	34	17		1
10726	2,6-Dichlorophenol	87-65-0	34	U	34	17		1
10726	2,4-Dimethylphenol	105-67-9	34	U	34	17		1
10726	3,5-Dimethylphenol	108-68-9	170	U	170	34		1
10726	4,6-Dinitro-2-methylphenol	534-52-1	520	U	520	170		1
10726	2,4-Dinitrophenol	51-28-5	680	U	680	310		1
10726	1,2-Diphenylhydrazine	122-66-7	34	U	34	17		1
10726	Hexachlorobenzene	118-74-1	18	U	18	3		1
10726	Hexachlorobutadiene	87-68-3	34	U	34	17		1
10726	Hexachlorocyclopentadiene	77-47-4	520	U	520	170		1
10726	Hexachloroethane	67-72-1	170	U	170	34		1
10726	Isophorone	78-59-1	34	U	34	17		1
10726	2-Methylphenol	95-48-7	34	U	34	17		1
10726	4-Methylphenol	106-44-5	34	U	34	17		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
10726	NDPA as diphenylamine	n.a.	170	U	170	34		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10726	2-Nitroaniline	88-74-4	34	U	34	17		1
10726	3-Nitroaniline	99-09-2	170	U	170	69		1
10726	4-Nitroaniline	100-01-6	170	U	170	69		1

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Sample Description: SL-655-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488116
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 08:00 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65550 SDG#: PH217-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		ug/kg		ug/kg	ug/kg	ug/kg	
10726	Nitrobenzene	98-95-3	34	U	34	17		1
10726	2-Nitrophenol	88-75-5	34	U	34	17		1
10726	4-Nitrophenol	100-02-7	520	U	520	170		1
10726	N-Nitroso-di-n-propylamine	621-64-7	34	U	34	17		1
10726	N-Nitrosodiphenylamine	86-30-6	34	U	34	17		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10726	Pentachlorophenol	87-86-5	180	U	180	34		1
10726	Phenol	108-95-2	34	U	34	17		1
10726	2-phenoxy-Ethanol	122-99-6	180	U	180	180		1
	2-phenoxy-Ethanol was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.							
10726	Pyridine	110-86-1	170	U	170	69		1
10726	1,2,3,4-Tetrahydronaphthalene	119-64-2	170	U	170	34		1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.							
10726	1,2,4-Trichlorobenzene	120-82-1	34	U	34	17		1
10726	2,4,5-Trichlorophenol	95-95-4	34	U	34	17		1
10726	2,4,6-Trichlorophenol	88-06-2	34	U	34	17		1
	The QC limits for 1,2,3,4-tetrahydronaphthalene are advisory.							
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/kg		ug/kg	ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69		1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34		1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34		1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69		1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69		1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69		1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.4		1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69		1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69		1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2		1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2		1
12969	Chrysene	218-01-9	1.7	U	1.7	0.34		1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69		1
12969	Diethylphthalate	84-66-2	19	U	19	6.2		1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.2		1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.69		1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69		1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69		1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69		1
12969	Morpholine	110-91-8	21	U	21	21		1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.69		1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69		1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2		1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69		1
12969	Pyrene	129-00-0	1.7	U	1.7	0.69		1

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Sample Description: SL-655-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488116
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 08:00 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65550 SDG#: PH217-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: N-Nitrosodimethylamine							
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1	U	1	0.2		23.54
Explosives	**SW-846 8330A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	310	U	310	150	10000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	310	U	310	100	10000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	410	U	410	210	10000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	410	U	410	210	10000000	1
10132	1,3-Dinitrobenzene	99-65-0	310	U	310	100	10000000	1
10132	2,4-Dinitrotoluene	121-14-2	310	U	310	100	10000000	1
10132	2,6-Dinitrotoluene	606-20-2	310	U	310	100	10000000	1
10132	HMX	2691-41-0	410	U	410	210	10000000	1
10132	Nitrobenzene	98-95-3	310	U	310	100	10000000	1
10132	Nitroglycerin	55-63-0	2,100	U	2,100	1,000	10000000	1
10132	2-Nitrotoluene	88-72-2	310	U	310	210	10000000	1
10132	3-Nitrotoluene	99-08-1	310	U	310	260	10000000	1
10132	4-Nitrotoluene	99-99-0	310	U	310	210	10000000	1
10132	PETN	78-11-5	2,100	U	2,100	1,000	10000000	1
10132	RDX	121-82-4	310	U	310	130	10000000	1
10132	Tetryl	479-45-8	310	U	310	170	10000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	310	U	310	100	10000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	310	U	310	100	10000000	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: 1,3-Dinitrobenzene

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Sample Description: SL-655-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488116
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 08:00 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65550 SDG#: PH217-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Herbicides	**SW-846 8151A**		ug/kg		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	37	U	37	12		1
10401	Dalapon	75-99-0	93	U	93	45		1
10401	2,4-DB	94-82-6	18	U	18	6.4		1
10401	Dicamba	1918-00-9	12	U	12	4.1		1
10401	Dinoseb	88-85-7	25	U	25	9.3		1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.							
10401	2,4-DP (Dichlorprop)	120-36-5	18	U	18	9.3		1
10401	MCPA	94-74-6	2,600	U	2,600	790		1
10401	MCPP (Mecoprop)	93-65-2	2,600	U	2,600	770		1
10401	2,4,5-T	93-76-5	1.8	U	1.8	0.85		1
10401	2,4,5-TP	93-72-1	1.8	U	1.8	0.77		1
Perchlorate	**SW-846 6850 1/2007**		ug/kg		ug/kg	ug/kg	ug/kg	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.2	U	5.2	2.2		1
Pesticides/PCBs	**SW-846 8081B**		ug/kg		ug/kg	ug/kg	ug/kg	
10590	Aldrin	309-00-2	0.85	U	0.85	0.17		1
10590	Alpha BHC	319-84-6	0.85	U	0.85	0.17		1
10590	Beta BHC	319-85-7	1.9	U	1.9	0.98		1
10590	Gamma BHC - Lindane	58-89-9	0.85	U	0.85	0.17		1
10590	Chlordane	57-74-9	17	U	17	4.1		1
10590	p,p-DDD	72-54-8	1.7	U	1.7	0.34		1
10590	p,p-DDE	72-55-9	1.7	U	1.7	0.34		1
10590	p,p-DDT	50-29-3	1.7	U	1.7	0.36		1
10590	Delta BHC	319-86-8	0.85	U	0.85	0.46		1
10590	Dieldrin	60-57-1	1.7	U	1.7	0.34		1
10590	Endosulfan I	959-98-8	0.85	U	0.85	0.22		1
10590	Endosulfan II	33213-65-9	1.7	U	1.7	0.34		1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.34		1
10590	Endrin	72-20-8	1.7	U	1.7	0.34		1
10590	Endrin Aldehyde	7421-93-4	1.7	U	1.7	0.34		1
10590	Endrin Ketone	53494-70-5	1.8	U	1.8	0.61		1
10590	Heptachlor	76-44-8	0.85	U	0.85	0.17		1
10590	Heptachlor Epoxide	1024-57-3	0.85	U	0.85	0.17		1
10590	Methoxychlor	72-43-5	6.8	U	6.8	1.7		1
10590	Mirex	2385-85-5	1.7	U	1.7	0.36		1
10590	Toxaphene	8001-35-2	34	U	34	14		1
Pesticides/PCBs	**SW-846 8082A**		ug/kg		ug/kg	ug/kg	ug/kg	
13099	Aroclor 5432	63496-31-1	34	U	34	10		1
13099	Aroclor 5442	12642-23-8	34	U	34	10		1
13099	Aroclor 5460	11126-42-4	34	U	34	10		1
13099	PCB-1016	12674-11-2	18	U	18	3.4		1
13099	PCB-1221	11104-28-2	18	U	18	5.3		1
13099	PCB-1232	11141-16-5	18	U	18	4.2		1
13099	PCB-1242	53469-21-9	18	U	18	4.2		1
13099	PCB-1248	12672-29-6	18	U	18	3.4		1
13099	PCB-1254	11097-69-1	18	U	18	4.5		1
13099	PCB-1260	11096-82-5	18	U	18	4.0		1

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Sample Description: SL-655-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488116
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 08:00 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65550 SDG#: PH217-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
13099	PCB-1262	37324-23-5	18	U	18	3.4		1
13099	PCB-1268	11100-14-4	18	U	18	3.4		1
	For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.							
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12934	Diethylene glycol	111-46-6	10	U	10	5.2		1
12934	Ethylene glycol	107-21-1	10	U	10	5.2		1
12934	Propylene glycol	57-55-6	10	U	10	5.2		1
12934	Triethylene glycol	112-27-6	10	U	10	5.2		1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	0.18	U	0.18	0.069		1
10318	o-Terphenyl	84-15-1	0.18	U	0.18	0.069		1
10318	p-Terphenyl	92-94-4	0.18	U	0.18	0.069		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1		1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1		1
12952	EFH (C21-C30)	n.a.	5.2	U	5.2	2.1		1
12952	EFH (C30-C40)	n.a.	10	U	10	4.1		1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1		1
13197	EFH C12-C14 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
13197	EFH C15-C20 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
13197	EFH C21-C30 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.1		1
13197	EFH C8-C11 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	10,100		39.4	7.09		1
06944	Antimony	7440-36-0	3.94	U	3.94	0.728		1
06935	Arsenic	7440-38-2	1.72	J	3.94	0.689		1
06946	Barium	7440-39-3	62.1		0.984	0.0325		1
06947	Beryllium	7440-41-7	0.443	J	0.984	0.0659		1
07914	Boron	7440-42-8	4.67	J	9.84	0.826		1
06949	Cadmium	7440-43-9	0.189	J	0.984	0.0748		1
01650	Calcium	7440-70-2	2,350		19.7	3.29		1
06951	Chromium	7440-47-3	9.86		2.95	0.157		1
06952	Cobalt	7440-48-4	3.34		0.984	0.0974		1
06953	Copper	7440-50-8	4.23		1.97	0.285		1
01654	Iron	7439-89-6	17,300		39.4	3.56		1

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Sample Description: SL-655-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488116
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 08:00 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65550 SDG#: PH217-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06955	Lead	7439-92-1	6.97		2.95	0.492		1
01656	Lithium	7439-93-2	21.8		3.9	0.33		1
01657	Magnesium	7439-95-4	3,350		9.84	1.64		1
06958	Manganese	7439-96-5	217		0.984	0.0817		1
06960	Molybdenum	7439-98-7	1.97	U	1.97	0.167		1
06961	Nickel	7440-02-0	5.42		1.97	0.128		1
10145	Phosphorus	7723-14-0	281		9.84	2.84		1
01662	Potassium	7440-09-7	2,800		98.4	8.21		1
01667	Sodium	7440-23-5	134		98.4	16.4		1
06969	Tin	7440-31-5	3.09	J	9.84	0.216		1
06970	Titanium	7440-32-6	909		0.984	0.167		1
06971	Vanadium	7440-62-2	21.2		0.984	0.128		1
06972	Zinc	7440-66-6	53.2		3.94	0.197		1
10146	Zirconium	7440-67-7	1.72	J	4.92	0.826		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.261	J	0.394	0.0984		2
06142	Silver	7440-22-4	0.197	U	0.197	0.0256		2
06144	Strontium	7440-24-6	14.2		0.394	0.0669		2
06145	Thallium	7440-28-0	0.265		0.197	0.0295		2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0171	U	0.0171	0.0103		1
Wet Chemistry	**SW-846 7199**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05892	2a Chromium VI by EPA 7199	18540-29-9	0.42	U	0.42	0.15		1
	SW-846 9045D modified		**Std. Units**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 22.1 C.	n.a.	8.57		0.0100	0.0100		1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	3.2		0.10	0.10		1

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SSFL Phase 3 Subarea 5C

LL Sample # SW 7488116
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Project Name: SSFL Phase 3 Sampling

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65550 SDG#: PH217-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.01	U	1.01	0.0352		1
11031	12378-PeCDD	40321-76-4	5.03	U	5.03	0.0268		1
11031	123478-HxCDD	39227-28-6	5.03	U	5.03	0.0210		1
11031	123678-HxCDD	57653-85-7	0.0616	JB	5.03	0.0224		1
11031	123789-HxCDD	19408-74-3	0.0345	JBQ	5.03	0.0225		1
11031	1234678-HpCDD	35822-46-9	0.795	JB	5.03	0.0331		1
11031	OCDD	3268-87-9	5.01	JB	10.1	0.0380		1
11031	2378-TCDF	51207-31-9	1.01	U	1.01	0.0283		1
11031	12378-PeCDF	57117-41-6	0.0566	JBQ	5.03	0.0180		1
11031	23478-PeCDF	57117-31-4	0.0618	JB	5.03	0.0192		1
11031	123478-HxCDF	70648-26-9	0.0652	JBQ	5.03	0.0239		1
11031	123678-HxCDF	57117-44-9	0.0538	JBQ	5.03	0.0203		1
11031	123789-HxCDF	72918-21-9	0.0438	JB	5.03	0.0249		1
11031	234678-HxCDF	60851-34-5	0.0562	JBQ	5.03	0.0223		1
11031	1234678-HpCDF	67562-39-4	0.194	JBQ	5.03	0.0197		1
11031	1234789-HpCDF	55673-89-7	0.0770	JB	5.03	0.0441		1
11031	OCDF	39001-02-0	0.198	JBQ	10.1	0.0463		1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0393					1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	53	25 - 164
13C12-12378-PeCDD	58	25 - 181
13C12-123478-HxCDD	66	32 - 141
13C12-123678-HxCDD	69	28 - 130
13C12-123789-HxCDD	65	28 - 130
13C12-1234678-HpCDD	64	23 - 140
13C12-OCDD	53	17 - 157
13C12-2378-TCDF	48	24 - 169
13C12-12378-PeCDF	60	24 - 185
13C12-23478-PeCDF	51	21 - 178
13C12-123478-HxCDF	53	26 - 152
13C12-123678-HxCDF	64	26 - 123
13C12-234678-HxCDF	56	28 - 136
13C12-123789-HxCDF	57	29 - 147
13C12-1234678-HpCDF	79	28 - 143
13C12-1234789-HpCDF	42	26 - 138
13C12-OCDF	39	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-655-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488116
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 08:00 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65550 SDG#: PH217-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Action Limit	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-655-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488116
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 08:00 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65550 SDG#: PH217-04

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	8a SVOCs by EPA 8270D	SW-846 8270D	1	14163SLC026	06/15/2014 22:08	Holly Berry	1
12969	7a SVOC SIM 8270D	SW-846 8270D SIM	1	14163SLB026	06/17/2014 11:32	Mark A Clark	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	14163SLC026	06/12/2014 17:00	JoElla L Rice	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14163SLB026	06/12/2014 17:00	JoElla L Rice	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14164A16A	06/13/2014 19:40	Marie D Beamenderfer	23.54
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201415634714	06/05/2014 15:27	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201415634714	06/05/2014 15:27	Mitchell R Washel	n.a.
10132	24a Energetics by 8330A	SW-846 8330A	1	141610011A	06/14/2014 09:51	James H Place	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	141560024A	06/07/2014 05:19	Lisa A Reinert	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141580001A	06/09/2014 16:11	Richard A Shober	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141580004A	06/10/2014 19:19	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141580012A	06/10/2014 08:52	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141580012A	06/09/2014 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141580004A	06/08/2014 08:50	Katheryne V Sponheimer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	141560024A	06/06/2014 10:00	William H Saadeh	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141580001A	06/09/2014 06:15	Maria Davenport	1
11137	Energetics Extraction	SW-846 8330	1	141610011A	06/11/2014 07:30	Kerrie A Freeburn	1
12934	26a Glycols by EPA 8015C	SW-846 8015C Feb 2007 Rev 3	1	141620008A	06/12/2014 17:03	Tyler O Griffin	1
10318	27a Terphenyls by 8015B	SW-846 8015B	1	141600033A	06/13/2014 14:36	Glorines Suarez-Rivera	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141600037A	06/12/2014 18:58	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141600038A	06/13/2014 06:51	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141600038A	06/10/2014 16:55	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141600037A	06/10/2014 16:55	JoElla L Rice	1
10303	Terphenyls soil prep	SW-846 3550B	1	141600033A	06/10/2014 10:00	Denise L Trimby	1
12933	Glycols Sonication Extraction	SW-846 3550C	1	141620008A	06/11/2014 18:45	David V Hershey Jr	1

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Sample Description: SL-655-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488116
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 08:00 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

65550 SDG#: PH217-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14162002	06/13/2014 20:36	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14162002	06/11/2014 11:30	Brett M Weidman	1
01643	Aluminum	SW-846 6010C	1	141600637001	06/11/2014 09:00	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141600637001	06/11/2014 09:00	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141600637001	06/11/2014 09:00	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141600637001	06/11/2014 09:00	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141600637001	06/11/2014 09:00	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141600637001	06/11/2014 09:00	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141600637001	06/11/2014 12:44	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141600637001	06/11/2014 09:00	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141600637001	06/11/2014 09:00	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141600637001	06/11/2014 09:00	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141600637001	06/11/2014 09:00	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141600637001	06/11/2014 09:00	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141600637001	06/11/2014 09:00	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141600637001	06/11/2014 09:00	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141600637001	06/11/2014 09:00	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141600637001	06/11/2014 09:00	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141600637001	06/11/2014 09:00	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141600637001	06/11/2014 09:00	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141600637001	06/11/2014 09:00	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141600637001	06/11/2014 09:00	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141600637001	06/11/2014 09:00	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141600637001	06/11/2014 09:00	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141600637001	06/11/2014 09:00	Eric L Eby	1
06971	Vanadium	SW-846 6010C	1	141600637001	06/11/2014 09:00	Eric L Eby	1
06972	Zinc	SW-846 6010C	1	141600637001	06/11/2014 09:00	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141600637001	06/11/2014 09:00	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141600637001B	06/11/2014 06:00	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141600637001A	06/11/2014 06:00	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141600637001A	06/11/2014 06:00	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141600637001A	06/11/2014 06:00	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141600638001	06/11/2014 09:10	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141600637001	06/10/2014 11:56	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141600638001	06/10/2014 13:25	James L Mertz	1
05892	2a Chromium VI by EPA 7199	SW-846 7199	1	14160243201A	06/11/2014 19:40	Clinton M Wilson	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14156039402A	06/05/2014 20:00	Luz M Groff	1
02432	Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	14160243201A	06/09/2014 20:00	Daniel S Smith	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14169162401A	06/18/2014 20:08	Scott W Freisher	1

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Sample Description: SL-646-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488117
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 11:30 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

64605 SDG#: PH217-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270D			ug/kg		ug/kg	ug/kg	ug/kg	
10726	Aniline	62-53-3	340	U	340	170		1
10726	Benzidine	92-87-5	1,700	U	1,700	720		1
10726	Benzoic acid	65-85-0	510	U	510	170		1
10726	Benzyl alcohol	100-51-6	340	U	340	170		1
10726	1,1'-Biphenyl	92-52-4	34	U	34	17		1
10726	4-Bromophenyl-phenylether	101-55-3	34	U	34	17		1
10726	2-butoxy-Ethanol	111-76-2	170	U	170	170		1
	2-butoxy-Ethanol was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.							
10726	Carbazole	86-74-8	34	U	34	17		1
10726	4-Chloro-3-methylphenol	59-50-7	34	U	34	17		1
10726	4-Chloroaniline	106-47-8	34	U	34	17		1
10726	bis(2-Chloroethoxy)methane	111-91-1	34	U	34	17		1
10726	bis(2-Chloroethyl)ether	111-44-4	34	U	34	17		1
10726	bis(2-Chloroisopropyl)ether	39638-32-9	34	U	34	17		1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.							
10726	2-Chloronaphthalene	91-58-7	34	U	34	7		1
10726	2-Chlorophenol	95-57-8	34	U	34	17		1
10726	4-Chlorophenyl-phenylether	7005-72-3	34	U	34	17		1
10726	Dibenzofuran	132-64-9	34	U	34	17		1
10726	1,2-Dichlorobenzene	95-50-1	34	U	34	17		1
10726	1,3-Dichlorobenzene	541-73-1	34	U	34	17		1
10726	1,4-Dichlorobenzene	106-46-7	34	U	34	17		1
10726	3,3'-Dichlorobenzidine	91-94-1	340	U	340	100		1
10726	2,4-Dichlorophenol	120-83-2	34	U	34	17		1
10726	2,6-Dichlorophenol	87-65-0	34	U	34	17		1
10726	2,4-Dimethylphenol	105-67-9	34	U	34	17		1
10726	3,5-Dimethylphenol	108-68-9	170	U	170	34		1
10726	4,6-Dinitro-2-methylphenol	534-52-1	510	U	510	170		1
10726	2,4-Dinitrophenol	51-28-5	670	U	670	310		1
10726	1,2-Diphenylhydrazine	122-66-7	34	U	34	17		1
10726	Hexachlorobenzene	118-74-1	17	U	17	3		1
10726	Hexachlorobutadiene	87-68-3	34	U	34	17		1
10726	Hexachlorocyclopentadiene	77-47-4	510	U	510	170		1
10726	Hexachloroethane	67-72-1	170	U	170	34		1
10726	Isophorone	78-59-1	34	U	34	17		1
10726	2-Methylphenol	95-48-7	34	U	34	17		1
10726	4-Methylphenol	106-44-5	34	U	34	17		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
10726	NDPA as diphenylamine	n.a.	170	U	170	34		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10726	2-Nitroaniline	88-74-4	34	U	34	17		1
10726	3-Nitroaniline	99-09-2	170	U	170	68		1
10726	4-Nitroaniline	100-01-6	170	U	170	68		1

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Sample Description: SL-646-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488117
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 11:30 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

64605 SDG#: PH217-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270D			ug/kg		ug/kg	ug/kg	ug/kg	
10726	Nitrobenzene	98-95-3	34	U	34	17		1
10726	2-Nitrophenol	88-75-5	34	U	34	17		1
10726	4-Nitrophenol	100-02-7	510	U	510	170		1
10726	N-Nitroso-di-n-propylamine	621-64-7	34	U	34	17		1
10726	N-Nitrosodiphenylamine	86-30-6	34	U	34	17		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10726	Pentachlorophenol	87-86-5	170	U	170	34		1
10726	Phenol	108-95-2	34	U	34	17		1
10726	2-phenoxy-Ethanol	122-99-6	170	U	170	170		1
	2-phenoxy-Ethanol was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.							
10726	Pyridine	110-86-1	170	U	170	68		1
10726	1,2,3,4-Tetrahydronaphthalene	119-64-2	170	U	170	34		1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.							
10726	1,2,4-Trichlorobenzene	120-82-1	34	U	34	17		1
10726	2,4,5-Trichlorophenol	95-95-4	34	U	34	17		1
10726	2,4,6-Trichlorophenol	88-06-2	34	U	34	17		1
	The QC limits for 1,2,3,4-tetrahydronaphthalene are advisory.							
GC/MS Semivolatiles SW-846 8270D SIM			ug/kg		ug/kg	ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68		1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34		1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34		1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.68		1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.68		1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.68		1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4		1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.68		1
12969	Benzo(k)fluoranthene	207-08-9	1.4	J	1.7	0.68		1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1		1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1		1
12969	Chrysene	218-01-9	0.72	J	1.7	0.34		1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68		1
12969	Diethylphthalate	84-66-2	18	U	18	6.1		1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.1		1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.68		1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.68		1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68		1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.68		1
12969	Morpholine	110-91-8	20	U	20	20		1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.68		1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68		1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1		1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.68		1
12969	Pyrene	129-00-0	1.7	U	1.7	0.68		1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-646-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488117
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 11:30 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

64605 SDG#: PH217-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: N-Nitrosodimethylamine							
Explosives	**SW-846 8330A**		ug/kg		ug/kg	ug/kg	ug/kg	
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	310	U	310	150	10000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	310	U	310	100	10000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	410	U	410	200	10000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	410	U	410	200	10000000	1
10132	1,3-Dinitrobenzene	99-65-0	310	U	310	100	10000000	1
10132	2,4-Dinitrotoluene	121-14-2	310	U	310	100	10000000	1
10132	2,6-Dinitrotoluene	606-20-2	310	U	310	100	10000000	1
10132	HMX	2691-41-0	410	U	410	200	10000000	1
10132	Nitrobenzene	98-95-3	310	U	310	100	10000000	1
10132	Nitroglycerin	55-63-0	2,000	U	2,000	1,000	10000000	1
10132	2-Nitrotoluene	88-72-2	310	U	310	200	10000000	1
10132	3-Nitrotoluene	99-08-1	310	U	310	260	10000000	1
10132	4-Nitrotoluene	99-99-0	310	U	310	200	10000000	1
10132	PETN	78-11-5	2,000	U	2,000	1,000	10000000	1
10132	RDX	121-82-4	310	U	310	130	10000000	1
10132	Tetryl	479-45-8	310	U	310	160	10000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	310	U	310	100	10000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	310	U	310	100	10000000	1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: 1,3-Dinitrobenzene							
Herbicides	**SW-846 8151A**		ug/kg		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	37	U	37	12		1
10401	Dalapon	75-99-0	92	U	92	45		1
10401	2,4-DB	94-82-6	15	J	17	6.3		1

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Sample Description: SL-646-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488117
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 11:30 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

64605 SDG#: PH217-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10401	Dicamba	1918-00-9	12	U	12	4.1		1
10401	Dinoseb	88-85-7	25	U	25	9.2		1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.							
10401	2,4-DP (Dichlorprop)	120-36-5	17	U	17	9.2		1
10401	MCPA	94-74-6	2,600	U	2,600	780		1
10401	MCPP (Mecoprop)	93-65-2	2,600	U	2,600	770		1
10401	2,4,5-T	93-76-5	1.7	U	1.7	0.84		1
10401	2,4,5-TP	93-72-1	1.7	U	1.7	0.77		1
Perchlorate	**SW-846 6850 1/2007**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.1	U	5.1	2.1		1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.85	U	0.85	0.17		1
10590	Alpha BHC	319-84-6	0.85	U	0.85	0.17		1
10590	Beta BHC	319-85-7	1.9	U	1.9	0.98		1
10590	Gamma BHC - Lindane	58-89-9	0.85	U	0.85	0.17		1
10590	Chlordane	57-74-9	17	U	17	4.1		1
10590	p,p-DDD	72-54-8	1.7	U	1.7	0.34		1
10590	p,p-DDE	72-55-9	1.7	U	1.7	0.34		1
10590	p,p-DDT	50-29-3	1.7	U	1.7	0.49		1
10590	Delta BHC	319-86-8	0.85	U	0.85	0.46		1
10590	Dieldrin	60-57-1	1.7	U	1.7	0.34		1
10590	Endosulfan I	959-98-8	0.85	U	0.85	0.22		1
10590	Endosulfan II	33213-65-9	1.7	U	1.7	0.34		1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.34		1
10590	Endrin	72-20-8	1.7	U	1.7	0.34		1
10590	Endrin Aldehyde	7421-93-4	1.7	U	1.7	0.34		1
10590	Endrin Ketone	53494-70-5	1.8	U	1.8	0.61		1
10590	Heptachlor	76-44-8	0.85	U	0.85	0.17		1
10590	Heptachlor Epoxide	1024-57-3	0.85	U	0.85	0.17		1
10590	Methoxychlor	72-43-5	6.9	U	6.9	1.7		1
10590	Mirex	2385-85-5	1.7	U	1.7	0.36		1
10590	Toxaphene	8001-35-2	34	U	34	14		1
	Reporting limits were raised due to interference from the sample matrix.							
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10		1
13099	Aroclor 5442	12642-23-8	34	U	34	10		1
13099	Aroclor 5460	11126-42-4	34	U	34	10		1
13099	PCB-1016	12674-11-2	17	U	17	3.4		1
13099	PCB-1221	11104-28-2	17	U	17	5.2		1
13099	PCB-1232	11141-16-5	17	U	17	4.2		1
13099	PCB-1242	53469-21-9	17	U	17	4.2		1
13099	PCB-1248	12672-29-6	17	U	17	3.4		1
13099	PCB-1254	11097-69-1	17	U	17	4.5		1
13099	PCB-1260	11096-82-5	7.5	J	17	4.0		1
13099	PCB-1262	37324-23-5	17	U	17	3.4		1
13099	PCB-1268	11100-14-4	17	U	17	3.4		1

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Sample Description: SL-646-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488117
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 11:30 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

64605 SDG#: PH217-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
	For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.							
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12934	Diethylene glycol	111-46-6	10	U	10	5.1		1
12934	Ethylene glycol	107-21-1	10	U	10	5.1		1
12934	Propylene glycol	57-55-6	10	U	10	5.1		1
12934	Triethylene glycol	112-27-6	10	U	10	5.1		1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	0.17	U	0.17	0.068		1
10318	o-Terphenyl	84-15-1	0.17	U	0.17	0.068		1
10318	p-Terphenyl	92-94-4	0.17	U	0.17	0.068		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0		1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0		1
12952	EFH (C21-C30)	n.a.	5.6		5.1	2.0		1
12952	EFH (C30-C40)	n.a.	11		10	4.1		1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0		1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.0		1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.0		1
13197	EFH C21-C30 w/ SiGel	n.a.	5.1	U	5.1	2.0		1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.1		1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.0		1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,900		39.0	7.02		1
06944	Antimony	7440-36-0	3.90	U	3.90	0.721		1
06935	Arsenic	7440-38-2	2.19	J	3.90	0.682		1
06946	Barium	7440-39-3	88.9		0.974	0.0321		1
06947	Beryllium	7440-41-7	0.518	J	0.974	0.0652		1
07914	Boron	7440-42-8	4.90	J	9.74	0.818		1
06949	Cadmium	7440-43-9	0.228	J	0.974	0.0740		1
01650	Calcium	7440-70-2	2,790		19.5	3.25		1
06951	Chromium	7440-47-3	17.3		2.92	0.156		1
06952	Cobalt	7440-48-4	4.99		0.974	0.0964		1
06953	Copper	7440-50-8	7.46		1.95	0.282		1
01654	Iron	7439-89-6	21,100		39.0	3.53		1
06955	Lead	7439-92-1	9.58		2.92	0.487		1
01656	Lithium	7439-93-2	23.2		3.9	0.33		1
01657	Magnesium	7439-95-4	4,760		9.74	1.63		1
06958	Manganese	7439-96-5	277		0.974	0.0808		1

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Sample Description: SL-646-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488117
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 11:30 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

64605 SDG#: PH217-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06960	Molybdenum	7439-98-7	0.205	J	1.95	0.166		1
06961	Nickel	7440-02-0	9.58		1.95	0.127		1
10145	Phosphorus	7723-14-0	463		9.74	2.81		1
01662	Potassium	7440-09-7	3,640		97.4	8.12		1
01667	Sodium	7440-23-5	68.9	J	97.4	16.3		1
06969	Tin	7440-31-5	3.48	J	9.74	0.214		1
06970	Titanium	7440-32-6	1,210		0.974	0.166		1
06971	Vanadium	7440-62-2	33.9		0.974	0.127		1
06972	Zinc	7440-66-6	59.3		3.90	0.195		1
10146	Zirconium	7440-67-7	2.44	J	4.87	0.818		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.271	J	0.390	0.0974		2
06142	Silver	7440-22-4	0.195	U	0.195	0.0253		2
06144	Strontium	7440-24-6	16.3		0.390	0.0662		2
06145	Thallium	7440-28-0	0.295		0.195	0.0292		2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0161	U	0.0161	0.0097		1
Wet Chemistry	**SW-846 7199**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05892	2a Chromium VI by EPA 7199	18540-29-9	0.35	J	0.42	0.15		1
	SW-846 9045D modified		**Std. Units**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.59		0.0100	0.0100		1
	The pH was measured in water at 21.9 C.							
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.2		0.10	0.10		1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.							

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Sample Description: SL-646-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488117
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 11:30 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

64605 SDG#: PH217-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.997	U	0.997	0.0245		1
11031	12378-PeCDD	40321-76-4	4.98	U	4.98	0.0309		1
11031	123478-HxCDD	39227-28-6	0.0387	JQ	4.98	0.0311		1
11031	123678-HxCDD	57653-85-7	0.181	JB	4.98	0.0334		1
11031	123789-HxCDD	19408-74-3	0.125	JBQ	4.98	0.0332		1
11031	1234678-HpCDD	35822-46-9	3.24	JB	4.98	0.0342		1
11031	OCDD	3268-87-9	31.9	B	9.97	0.0331		1
11031	2378-TCDF	51207-31-9	0.0959	JQ	0.997	0.0284		1
11031	12378-PeCDF	57117-41-6	0.256	JB	4.98	0.0187		1
11031	23478-PeCDF	57117-31-4	0.0600	JBQ	4.98	0.0196		1
11031	123478-HxCDF	70648-26-9	0.123	JBQ	4.98	0.0268		1
11031	123678-HxCDF	57117-44-9	0.129	JBQ	4.98	0.0231		1
11031	123789-HxCDF	72918-21-9	0.0486	JBQ	4.98	0.0279		1
11031	234678-HxCDF	60851-34-5	0.0930	JB	4.98	0.0245		1
11031	1234678-HpCDF	67562-39-4	0.602	JB	4.98	0.0155		1
11031	1234789-HpCDF	55673-89-7	0.0588	JB	4.98	0.0342		1
11031	OCDF	39001-02-0	1.26	JBQ	9.97	0.0383		1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0837					1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	74	23 - 140
13C12-OCDD	61	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	66	26 - 152
13C12-123678-HxCDF	78	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	94	28 - 143
13C12-1234789-HpCDF	50	26 - 138
13C12-OCDF	43	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

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Sample Description: SL-646-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488117
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 11:30 by AP

Submitted: 06/05/2014 09:15
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CDM Federal Programs Corp.
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Suite 400
Fairfax VA 22030

64605 SDG#: PH217-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Action Limit	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

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Sample Description: SL-646-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488117
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64605 SDG#: PH217-05

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	8a SVOCs by EPA 8270D	SW-846 8270D	1	14163SLC026	06/15/2014 23:25	Holly Berry	1
12969	7a SVOC SIM 8270D	SW-846 8270D SIM	1	14163SLB026	06/17/2014 12:26	Mark A Clark	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	14163SLC026	06/12/2014 17:00	JoElla L Rice	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14163SLB026	06/12/2014 17:00	JoElla L Rice	1
10132	24a Energetics by 8330A	SW-846 8330A	1	141610011A	06/14/2014 10:34	James H Place	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	141560024A	06/07/2014 05:46	Lisa A Reinert	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141580001A	06/09/2014 16:24	Richard A Shober	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141580004A	06/10/2014 19:32	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141580012A	06/10/2014 09:10	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141580012A	06/09/2014 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141580004A	06/08/2014 08:50	Katheryne V Sponheimer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	141560024A	06/06/2014 10:00	William H Saadeh	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141580001A	06/09/2014 06:15	Maria Davenport	1
11137	Energetics Extraction	SW-846 8330	1	141610011A	06/11/2014 07:30	Kerrie A Freeburn	1
12934	26a Glycols by EPA 8015C	SW-846 8015C Feb 2007 Rev 3	1	141620008A	06/12/2014 17:19	Tyler O Griffin	1
10318	27a Terphenyls by 8015B	SW-846 8015B	1	141600033A	06/13/2014 16:06	Glorines Suarez-Rivera	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141600037A	06/12/2014 19:20	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141600038A	06/13/2014 07:13	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141600038A	06/10/2014 16:55	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141600037A	06/10/2014 16:55	JoElla L Rice	1
10303	Terphenyls soil prep	SW-846 3550B	1	141600033A	06/10/2014 10:00	Denise L Trimby	1
12933	Glycols Sonication Extraction	SW-846 3550C	1	141620008A	06/11/2014 18:45	David V Hershey Jr	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14162002	06/13/2014 21:33	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14162002	06/11/2014 11:30	Brett M Weidman	1
01643	Aluminum	SW-846 6010C	1	141600637001	06/11/2014 09:04	Eric L Eby	1

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Sample Description: SL-646-SA5C-TR-0.5 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488117
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 11:30 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

64605 SDG#: PH217-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06944	Antimony	SW-846 6010C	1	141600637001	06/11/2014 09:04	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141600637001	06/11/2014 09:04	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141600637001	06/11/2014 09:04	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141600637001	06/11/2014 09:04	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141600637001	06/11/2014 09:04	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141600637001	06/11/2014 12:48	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141600637001	06/11/2014 09:04	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141600637001	06/11/2014 09:04	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141600637001	06/11/2014 09:04	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141600637001	06/11/2014 09:04	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141600637001	06/11/2014 09:04	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141600637001	06/11/2014 09:04	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141600637001	06/11/2014 09:04	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141600637001	06/11/2014 09:04	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141600637001	06/11/2014 09:04	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141600637001	06/11/2014 09:04	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141600637001	06/11/2014 09:04	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141600637001	06/11/2014 09:04	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141600637001	06/11/2014 09:04	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141600637001	06/11/2014 09:04	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141600637001	06/11/2014 09:04	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141600637001	06/11/2014 09:04	Eric L Eby	1
06971	Vanadium	SW-846 6010C	1	141600637001	06/11/2014 09:04	Eric L Eby	1
06972	Zinc	SW-846 6010C	1	141600637001	06/11/2014 09:04	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141600637001	06/11/2014 09:04	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141600637001B	06/11/2014 06:03	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141600637001A	06/11/2014 06:03	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141600637001A	06/11/2014 06:03	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141600637001A	06/11/2014 06:03	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141600638001	06/11/2014 09:12	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141600637001	06/10/2014 11:56	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141600638001	06/10/2014 13:25	James L Mertz	1
05892	2a Chromium VI by EPA 7199	SW-846 7199	2	14160243201A	06/11/2014 21:22	Clinton M Wilson	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14156039402A	06/05/2014 20:00	Luz M Groff	1
02432	Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	14160243201A	06/09/2014 20:00	Daniel S Smith	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14169162401A	06/18/2014 20:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-646-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488118
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 11:45 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

64650 SDG#: PH217-06*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270D			ug/kg		ug/kg	ug/kg	ug/kg	
10726	Aniline	62-53-3	350	U	350	170		1
10726	Benzidine	92-87-5	1,700	U	1,700	730		1
10726	Benzoic acid	65-85-0	520	U	520	170		1
10726	Benzyl alcohol	100-51-6	350	U	350	170		1
10726	1,1'-Biphenyl	92-52-4	35	U	35	17		1
10726	4-Bromophenyl-phenylether	101-55-3	35	U	35	17		1
10726	2-butoxy-Ethanol	111-76-2	180	U	180	180		1
	2-butoxy-Ethanol was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.							
10726	Carbazole	86-74-8	35	U	35	17		1
10726	4-Chloro-3-methylphenol	59-50-7	35	U	35	17		1
10726	4-Chloroaniline	106-47-8	35	U	35	17		1
10726	bis(2-Chloroethoxy)methane	111-91-1	35	U	35	17		1
10726	bis(2-Chloroethyl)ether	111-44-4	35	U	35	17		1
10726	bis(2-Chloroisopropyl)ether	39638-32-9	35	U	35	17		1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.							
10726	2-Chloronaphthalene	91-58-7	34	U	34	7		1
10726	2-Chlorophenol	95-57-8	35	U	35	17		1
10726	4-Chlorophenyl-phenylether	7005-72-3	35	U	35	17		1
10726	Dibenzofuran	132-64-9	35	U	35	17		1
10726	1,2-Dichlorobenzene	95-50-1	35	U	35	17		1
10726	1,3-Dichlorobenzene	541-73-1	35	U	35	17		1
10726	1,4-Dichlorobenzene	106-46-7	35	U	35	17		1
10726	3,3'-Dichlorobenzidine	91-94-1	350	U	350	100		1
10726	2,4-Dichlorophenol	120-83-2	35	U	35	17		1
10726	2,6-Dichlorophenol	87-65-0	35	U	35	17		1
10726	2,4-Dimethylphenol	105-67-9	35	U	35	17		1
10726	3,5-Dimethylphenol	108-68-9	170	U	170	35		1
10726	4,6-Dinitro-2-methylphenol	534-52-1	520	U	520	170		1
10726	2,4-Dinitrophenol	51-28-5	690	U	690	310		1
10726	1,2-Diphenylhydrazine	122-66-7	35	U	35	17		1
10726	Hexachlorobenzene	118-74-1	18	U	18	3		1
10726	Hexachlorobutadiene	87-68-3	35	U	35	17		1
10726	Hexachlorocyclopentadiene	77-47-4	520	U	520	170		1
10726	Hexachloroethane	67-72-1	170	U	170	35		1
10726	Isophorone	78-59-1	35	U	35	17		1
10726	2-Methylphenol	95-48-7	35	U	35	17		1
10726	4-Methylphenol	106-44-5	35	U	35	17		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
10726	NDPA as diphenylamine	n.a.	170	U	170	35		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10726	2-Nitroaniline	88-74-4	35	U	35	17		1
10726	3-Nitroaniline	99-09-2	170	U	170	70		1
10726	4-Nitroaniline	100-01-6	170	U	170	70		1

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Sample Description: SL-646-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488118
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 11:45 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

64650 SDG#: PH217-06*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		ug/kg		ug/kg	ug/kg	ug/kg	
10726	Nitrobenzene	98-95-3	35	U	35	17		1
10726	2-Nitrophenol	88-75-5	35	U	35	17		1
10726	4-Nitrophenol	100-02-7	520	U	520	170		1
10726	N-Nitroso-di-n-propylamine	621-64-7	35	U	35	17		1
10726	N-Nitrosodiphenylamine	86-30-6	35	U	35	17		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10726	Pentachlorophenol	87-86-5	180	U	180	35		1
10726	Phenol	108-95-2	35	U	35	17		1
10726	2-phenoxy-Ethanol	122-99-6	180	U	180	180		1
	2-phenoxy-Ethanol was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.							
10726	Pyridine	110-86-1	170	U	170	70		1
10726	1,2,3,4-Tetrahydronaphthalene	119-64-2	170	U	170	35		1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.							
10726	1,2,4-Trichlorobenzene	120-82-1	35	U	35	17		1
10726	2,4,5-Trichlorophenol	95-95-4	35	U	35	17		1
10726	2,4,6-Trichlorophenol	88-06-2	35	U	35	17		1
	The QC limits for 1,2,3,4-tetrahydronaphthalene are advisory.							
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/kg		ug/kg	ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70		1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35		1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35		1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.70		1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.70		1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.70		1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5		1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.70		1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.70		1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3		1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3		1
12969	Chrysene	218-01-9	1.7	U	1.7	0.35		1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.70		1
12969	Diethylphthalate	84-66-2	19	U	19	6.3		1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3		1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.70		1
12969	Fluorene	86-73-7	1.7	U	1.7	0.70		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.70		1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.70		1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.70		1
12969	Morpholine	110-91-8	21	U	21	21		1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.70		1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70		1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3		1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.70		1
12969	Pyrene	129-00-0	1.7	U	1.7	0.70		1

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Sample Description: SL-646-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488118
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 11:45 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

64650 SDG#: PH217-06*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: N-Nitrosodimethylamine							
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2		25.83
Explosives	**SW-846 8330A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10132	4-Amino-2,6-Dinitrotoluene	19406-51-0	310	U	310	160	10000000	1
10132	2-Amino-4,6-Dinitrotoluene	35572-78-2	310	U	310	100	10000000	1
10132	2,6-Diamino-4-nitrotoluene	59229-75-3	420	U	420	210	10000000	1
10132	2,4-Diamino-6-nitrotoluene	6629-29-4	420	U	420	210	10000000	1
10132	1,3-Dinitrobenzene	99-65-0	310	U	310	100	10000000	1
10132	2,4-Dinitrotoluene	121-14-2	310	U	310	100	10000000	1
10132	2,6-Dinitrotoluene	606-20-2	310	U	310	100	10000000	1
10132	HMX	2691-41-0	420	U	420	210	10000000	1
10132	Nitrobenzene	98-95-3	310	U	310	100	10000000	1
10132	Nitroglycerin	55-63-0	2,100	U	2,100	1,000	10000000	1
10132	2-Nitrotoluene	88-72-2	310	U	310	210	10000000	1
10132	3-Nitrotoluene	99-08-1	310	U	310	260	10000000	1
10132	4-Nitrotoluene	99-99-0	310	U	310	210	10000000	1
10132	PETN	78-11-5	2,100	U	2,100	1,000	10000000	1
10132	RDX	121-82-4	310	U	310	140	10000000	1
10132	Tetryl	479-45-8	310	U	310	170	10000000	1
10132	1,3,5-Trinitrobenzene	99-35-4	310	U	310	100	10000000	1
10132	2,4,6-Trinitrotoluene	118-96-7	310	U	310	100	10000000	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: 1,3-Dinitrobenzene

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-646-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488118
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 11:45 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

64650 SDG#: PH217-06*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Herbicides	**SW-846 8151A**		ug/kg		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	38	U	38	13		1
10401	Dalapon	75-99-0	94	U	94	46		1
10401	2,4-DB	94-82-6	18	U	18	6.5		1
10401	Dicamba	1918-00-9	13	U	13	4.2		1
10401	Dinoseb	88-85-7	25	U	25	9.4		1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.							
10401	2,4-DP (Dichlorprop)	120-36-5	18	U	18	9.4		1
10401	MCPA	94-74-6	2,600	U	2,600	790		1
10401	MCPP (Mecoprop)	93-65-2	2,600	U	2,600	780		1
10401	2,4,5-T	93-76-5	1.8	U	1.8	0.86		1
10401	2,4,5-TP	93-72-1	1.8	U	1.8	0.78		1
Perchlorate	**SW-846 6850 1/2007**		ug/kg		ug/kg	ug/kg	ug/kg	
06557	6a Perchlorate (Method 6850)	14797-73-0	5.2	U	5.2	2.2		1
Pesticides/PCBs	**SW-846 8081B**		ug/kg		ug/kg	ug/kg	ug/kg	
10590	Aldrin	309-00-2	0.87	U	0.87	0.18		1
10590	Alpha BHC	319-84-6	0.87	U	0.87	0.18		1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0		1
10590	Gamma BHC - Lindane	58-89-9	0.87	U	0.87	0.18		1
10590	Chlordane	57-74-9	18	U	18	4.2		1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.34		1
10590	p,p-DDE	72-55-9	1.8	U	1.8	0.34		1
10590	p,p-DDT	50-29-3	1.8	U	1.8	0.37		1
10590	Delta BHC	319-86-8	0.87	U	0.87	0.47		1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.34		1
10590	Endosulfan I	959-98-8	0.87	U	0.87	0.23		1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.34		1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.34		1
10590	Endrin	72-20-8	1.8	U	1.8	0.34		1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.34		1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.63		1
10590	Heptachlor	76-44-8	0.87	U	0.87	0.18		1
10590	Heptachlor Epoxide	1024-57-3	0.87	U	0.87	0.18		1
10590	Methoxychlor	72-43-5	7.0	U	7.0	1.8		1
10590	Mirex	2385-85-5	1.8	U	1.8	0.37		1
10590	Toxaphene	8001-35-2	34	U	34	15		1
Pesticides/PCBs	**SW-846 8082A**		ug/kg		ug/kg	ug/kg	ug/kg	
13099	Aroclor 5432	63496-31-1	34	U	34	10		1
13099	Aroclor 5442	12642-23-8	34	U	34	10		1
13099	Aroclor 5460	11126-42-4	34	U	34	10		1
13099	PCB-1016	12674-11-2	18	U	18	3.4		1
13099	PCB-1221	11104-28-2	18	U	18	5.3		1
13099	PCB-1232	11141-16-5	18	U	18	4.3		1
13099	PCB-1242	53469-21-9	18	U	18	4.3		1
13099	PCB-1248	12672-29-6	18	U	18	3.4		1
13099	PCB-1254	11097-69-1	18	U	18	4.6		1
13099	PCB-1260	11096-82-5	18	U	18	4.1		1

*=This limit was used in the evaluation of the final result
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Sample Description: SL-646-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488118
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 11:45 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

64650 SDG#: PH217-06*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
13099	PCB-1262	37324-23-5	18	U	18	3.4		1
13099	PCB-1268	11100-14-4	18	U	18	3.4		1
	For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.							
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12934	Diethylene glycol	111-46-6	10	U	10	5.2		1
12934	Ethylene glycol	107-21-1	10	U	10	5.2		1
12934	Propylene glycol	57-55-6	10	U	10	5.2		1
12934	Triethylene glycol	112-27-6	10	U	10	5.2		1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
10318	m-Terphenyl	92-06-8	0.18	U	0.18	0.070		1
10318	o-Terphenyl	84-15-1	0.18	U	0.18	0.070		1
10318	p-Terphenyl	92-94-4	0.18	U	0.18	0.070		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1		1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1		1
12952	EFH (C21-C30)	n.a.	2.3	J	5.2	2.1		1
12952	EFH (C30-C40)	n.a.	10	U	10	4.2		1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1		1
13197	EFH C12-C14 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
13197	EFH C15-C20 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
13197	EFH C21-C30 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.2		1
13197	EFH C8-C11 w/ SiGel	n.a.	5.2	U	5.2	2.1		1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	27,200		41.8	7.53		1
06944	Antimony	7440-36-0	4.18	U	4.18	0.773		1
06935	Arsenic	7440-38-2	1.66	J	4.18	0.731		1
06946	Barium	7440-39-3	98.7		1.04	0.0345		1
06947	Beryllium	7440-41-7	0.923	J	1.04	0.0700		1
07914	Boron	7440-42-8	5.47	J	10.4	0.878		1
06949	Cadmium	7440-43-9	0.167	J	1.04	0.0794		1
01650	Calcium	7440-70-2	2,200		20.9	3.49		1
06951	Chromium	7440-47-3	19.0		3.13	0.167		1
06952	Cobalt	7440-48-4	5.15		1.04	0.103		1
06953	Copper	7440-50-8	6.20		2.09	0.303		1
01654	Iron	7439-89-6	24,000		41.8	3.78		1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-646-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488118
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 11:45 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

64650 SDG#: PH217-06*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06955	Lead	7439-92-1	8.50		3.13	0.522		1
01656	Lithium	7439-93-2	22.4		4.2	0.36		1
01657	Magnesium	7439-95-4	5,230		10.4	1.75		1
06958	Manganese	7439-96-5	226		1.04	0.0867		1
06960	Molybdenum	7439-98-7	2.09	U	2.09	0.178		1
06961	Nickel	7440-02-0	9.18		2.09	0.136		1
10145	Phosphorus	7723-14-0	234		10.4	3.02		1
01662	Potassium	7440-09-7	3,120		104	8.71		1
01667	Sodium	7440-23-5	102	J	104	17.5		1
06969	Tin	7440-31-5	3.76	J	10.4	0.230		1
06970	Titanium	7440-32-6	1,440		1.04	0.178		1
06971	Vanadium	7440-62-2	38.1		1.04	0.136		1
06972	Zinc	7440-66-6	55.3		4.18	0.209		1
10146	Zirconium	7440-67-7	2.29	J	5.22	0.878		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.264	J	0.418	0.104		2
06142	Silver	7440-22-4	0.0389	J	0.209	0.0272		2
06144	Strontium	7440-24-6	25.0		0.418	0.0711		2
06145	Thallium	7440-28-0	0.269		0.209	0.0313		2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0103	J	0.0166	0.0099		1
Wet Chemistry	**SW-846 7199**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05892	2a Chromium VI by EPA 7199	18540-29-9	0.41	U	0.41	0.14		1
	SW-846 9045D modified		**Std. Units**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 22 C.	n.a.	7.09		0.0100	0.0100		1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	4.3		0.10	0.10		1

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Sample Description: SL-646-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488118
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 11:45 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

64650 SDG#: PH217-06*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.03	U	1.03	0.0248		1
11031	12378-PeCDD	40321-76-4	5.17	U	5.17	0.0242		1
11031	123478-HxCDD	39227-28-6	5.17	U	5.17	0.0175		1
11031	123678-HxCDD	57653-85-7	0.0445	JBQ	5.17	0.0189		1
11031	123789-HxCDD	19408-74-3	0.0280	JBQ	5.17	0.0179		1
11031	1234678-HpCDD	35822-46-9	0.166	JBQ	5.17	0.0205		1
11031	OCDD	3268-87-9	1.62	JB	10.3	0.0283		1
11031	2378-TCDF	51207-31-9	1.03	U	1.03	0.0233		1
11031	12378-PeCDF	57117-41-6	5.17	U	5.17	0.0122		1
11031	23478-PeCDF	57117-31-4	0.0392	JBQ	5.17	0.0135		1
11031	123478-HxCDF	70648-26-9	0.0301	JBQ	5.17	0.0146		1
11031	123678-HxCDF	57117-44-9	0.0294	JBQ	5.17	0.0122		1
11031	123789-HxCDF	72918-21-9	0.0532	JBQ	5.17	0.0157		1
11031	234678-HxCDF	60851-34-5	0.0166	JBQ	5.17	0.0133		1
11031	1234678-HpCDF	67562-39-4	0.0589	JBQ	5.17	0.00736		1
11031	1234789-HpCDF	55673-89-7	5.17	U	5.17	0.0154		1
11031	OCDF	39001-02-0	0.113	JBQ	10.3	0.0283		1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.000486					1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	84	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	86	32 - 141
13C12-123678-HxCDD	89	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	65	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	89	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	90	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	100	28 - 143
13C12-1234789-HpCDF	56	26 - 138
13C12-OCDF	50	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-646-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488118
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 11:45 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

64650 SDG#: PH217-06*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Action Limit	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-646-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488118
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 11:45 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

64650 SDG#: PH217-06*

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	8a SVOCs by EPA 8270D	SW-846 8270D	1	14163SLC026	06/15/2014 23:51	Holly Berry	1
12969	7a SVOC SIM 8270D	SW-846 8270D SIM	1	14163SLB026	06/17/2014 13:23	Mark A Clark	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	14163SLC026	06/12/2014 17:00	JoElla L Rice	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14163SLB026	06/12/2014 17:00	JoElla L Rice	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14164A16A	06/13/2014 20:18	Marie D Beamenderfer	25.83
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201415634714	06/05/2014 15:25	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201415634714	06/05/2014 15:25	Mitchell R Washel	n.a.
10132	24a Energetics by 8330A	SW-846 8330A	1	141610011A	06/14/2014 11:16	James H Place	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	141560024A	06/07/2014 06:12	Lisa A Reinert	1
06557	6a Perchlorate (Method 6850)	SW-846 6850 1/2007	1	141580001A	06/09/2014 16:37	Richard A Shober	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141580004A	06/10/2014 19:46	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141580012A	06/10/2014 09:29	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141580012A	06/09/2014 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141580004A	06/08/2014 08:50	Katheryne V Sponheimer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	141560024A	06/06/2014 10:00	William H Saadeh	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	141580001A	06/09/2014 06:15	Maria Davenport	1
11137	Energetics Extraction	SW-846 8330	1	141610011A	06/11/2014 07:30	Kerrie A Freeburn	1
12934	26a Glycols by EPA 8015C	SW-846 8015C Feb 2007 Rev 3	1	141620008A	06/12/2014 17:34	Tyler O Griffin	1
10318	27a Terphenyls by 8015B	SW-846 8015B	1	141600033A	06/13/2014 14:14	Glorines Suarez-Rivera	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141600037A	06/12/2014 19:42	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141600038A	06/13/2014 07:35	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141600038A	06/10/2014 16:55	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141600037A	06/10/2014 16:55	JoElla L Rice	1
10303	Terphenyls soil prep	SW-846 3550B	1	141600033A	06/10/2014 10:00	Denise L Trimby	1
12933	Glycols Sonication Extraction	SW-846 3550C	1	141620008A	06/11/2014 18:45	David V Hershey Jr	1

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Sample Description: SL-646-SA5C-TR-5.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7488118
LL Group # 1479557
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/04/2014 11:45 by AP

Submitted: 06/05/2014 09:15
Reported: 07/07/2014 12:04

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

64650 SDG#: PH217-06*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14162002	06/13/2014 22:30	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14162002	06/11/2014 11:30	Brett M Weidman	1
01643	Aluminum	SW-846 6010C	1	141600637001	06/11/2014 09:15	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141600637001	06/11/2014 09:15	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141600637001	06/11/2014 09:15	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141600637001	06/11/2014 09:15	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141600637001	06/11/2014 09:15	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141600637001	06/11/2014 09:15	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	141600637001	06/11/2014 12:52	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141600637001	06/11/2014 09:15	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141600637001	06/11/2014 09:15	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141600637001	06/11/2014 09:15	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141600637001	06/11/2014 09:15	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141600637001	06/11/2014 09:15	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141600637001	06/11/2014 09:15	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141600637001	06/11/2014 09:15	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141600637001	06/11/2014 09:15	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141600637001	06/11/2014 09:15	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141600637001	06/11/2014 09:15	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141600637001	06/11/2014 09:15	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141600637001	06/11/2014 09:15	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141600637001	06/11/2014 09:15	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141600637001	06/11/2014 09:15	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141600637001	06/11/2014 09:15	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141600637001	06/11/2014 09:15	Eric L Eby	1
06971	Vanadium	SW-846 6010C	1	141600637001	06/11/2014 09:15	Eric L Eby	1
06972	Zinc	SW-846 6010C	1	141600637001	06/11/2014 09:15	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141600637001	06/11/2014 09:15	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141600637001B	06/11/2014 06:10	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141600637001A	06/11/2014 06:10	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141600637001A	06/11/2014 06:10	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141600637001A	06/11/2014 06:10	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141600638001	06/11/2014 09:14	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141600637001	06/10/2014 11:56	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141600638001	06/10/2014 13:25	James L Mertz	1
05892	2a Chromium VI by EPA 7199	SW-846 7199	1	14160243201A	06/11/2014 21:30	Clinton M Wilson	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14156039402A	06/05/2014 20:00	Luz M Groff	1
02432	Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	14160243201A	06/09/2014 20:00	Daniel S Smith	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14169162401A	06/18/2014 20:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479557
Reported: 07/07/14 at 12:04 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14161WAH026	Sample number(s): 7488113									
Acenaphthene	0.050	U	0.050	0.010	ug/l	98	98	83-119	0	30
Acenaphthylene	0.050	U	0.050	0.010	ug/l	93	92	81-130	2	30
Anthracene	0.050	U	0.050	0.010	ug/l	98	97	83-125	1	30
Benzo(a)anthracene	0.050	U	0.050	0.010	ug/l	102	102	79-122	0	30
Benzo(a)pyrene	0.050	U	0.050	0.010	ug/l	99	98	80-121	1	30
Benzo(b)fluoranthene	0.050	U	0.050	0.010	ug/l	103	104	79-136	1	30
Benzo(e)pyrene	0.050	U	0.050	0.010	ug/l	98	98	67-118	0	30
Benzo(g,h,i)perylene	0.050	U	0.050	0.010	ug/l	100	99	72-132	1	30
Benzo(k)fluoranthene	0.050	U	0.050	0.010	ug/l	105	101	81-131	3	30
Butylbenzylphthalate	1.0	U	1.0	0.050	ug/l	85	85	40-138	1	30
Di-n-butylphthalate	1.0	U	1.0	0.050	ug/l	102	105	64-141	2	30
Chrysene	0.050	U	0.050	0.010	ug/l	104	99	84-118	6	30
Dibenz(a,h)anthracene	0.050	U	0.050	0.010	ug/l	100	95	66-133	5	30
Diethylphthalate	0.069	J	1.0	0.050	ug/l	97	95	64-137	2	30
Dimethylphthalate	1.0	U	1.0	0.050	ug/l	79	79	23-139	0	30
Bis(2-Ethylhexyl)phthalate	0.096	J	1.0	0.050	ug/l	93	639*	70-143	149*	30
Fluoranthene	0.050	U	0.050	0.010	ug/l	102	99	84-124	2	30
Fluorene	0.050	U	0.050	0.010	ug/l	96	96	82-119	0	30
Indeno(1,2,3-cd)pyrene	0.050	U	0.050	0.010	ug/l	99	96	68-132	3	30
1-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	87	86	86-130	1	30
2-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	84	82	81-131	2	30
Naphthalene	0.050	U	0.050	0.030	ug/l	86	85	82-122	2	30
N-Nitrosodimethylamine	0.050	U	0.050	0.010	ug/l	68	66	56-96	4	30
Di-n-octylphthalate	1.0	U	1.0	0.050	ug/l	85	78	57-145	9	30
Phenanthrene	0.050	U	0.050	0.030	ug/l	97	97	83-116	0	30
Pyrene	0.050	U	0.050	0.010	ug/l	98	96	78-125	2	30
Batch number: 14161WAI026	Sample number(s): 7488113									
Acenaphthene	0.5	U	0.5	0.1	ug/l	93	87	80-112	7	30
Acenaphthylene	0.5	U	0.5	0.1	ug/l	99	91	84-125	9	30
Aniline	1	U	1.	0.5	ug/l	80	84	43-94	4	30
Anthracene	0.5	U	0.5	0.1	ug/l	100	92	82-116	7	30
Benzidine	60	U	60.	20	ug/l	0*	65	20-94	200*	30
Benzo(a)anthracene	0.5	U	0.5	0.1	ug/l	108	97	81-126	11	30
Benzo(a)pyrene	0.5	U	0.5	0.1	ug/l	101	89	82-116	13	30
Benzo(b)fluoranthene	0.5	U	0.5	0.1	ug/l	102	93	82-121	10	30
Benzo(g,h,i)perylene	0.5	U	0.5	0.1	ug/l	100	90	76-128	11	30
Benzo(k)fluoranthene	0.5	U	0.5	0.1	ug/l	101	90	81-122	11	30
Benzoic acid	15	U	15.	6	ug/l	137*	117*	10-97	16	30
Benzyl alcohol	15	U	15.	10	ug/l	88	88	66-112	1	30
1,1'-Biphenyl	1	U	1.	0.5	ug/l	89	82	78-109	8	30
4-Bromophenyl-phenylether	1	U	1.	0.5	ug/l	100	92	82-118	8	30
Butylbenzylphthalate	5	U	5.	2	ug/l	94	91	79-119	4	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479557
Reported: 07/07/14 at 12:04 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Di-n-butylphthalate	5	U	5.	2	ug/l	99	93	80-119	7	30
Carbazole	1	U	1.	0.5	ug/l	99	95	84-117	5	30
4-Chloro-3-methylphenol	1	U	1.	0.5	ug/l	99	91	80-123	9	30
4-Chloroaniline	1	U	1.	0.5	ug/l	92	95	55-113	3	30
bis(2-Chloroethoxy)methane	1	U	1.	0.5	ug/l	96	96	77-115	0	30
bis(2-Chloroethyl)ether	1	U	1.	0.5	ug/l	95	95	78-112	0	30
bis(2-Chloroisopropyl)ether	1	U	1.	0.5	ug/l	99	96	56-119	3	30
2-Chloronaphthalene	1	U	1.	0.4	ug/l	91	84	71-120	7	30
2-Chlorophenol	1	U	1.	0.5	ug/l	91	83	76-111	9	30
4-Chlorophenyl-phenylether	1	U	1.	0.5	ug/l	98	91	77-114	8	30
Chrysene	0.5	U	0.5	0.1	ug/l	105	93	81-120	11	30
Dibenz(a,h)anthracene	0.5	U	0.5	0.1	ug/l	103	92	83-124	11	30
Dibenzofuran	1	U	1.	0.5	ug/l	95	89	81-110	7	30
1,2-Dichlorobenzene	1	U	1.	0.5	ug/l	84	78	69-107	7	30
1,3-Dichlorobenzene	1	U	1.	0.5	ug/l	78	72	69-107	7	30
1,4-Dichlorobenzene	1	U	1.	0.5	ug/l	79	73	66-111	7	30
3,3'-Dichlorobenzidine	5	U	5.	2	ug/l	80	84	47-108	5	30
2,4-Dichlorophenol	1	U	1.	0.5	ug/l	97	88	84-119	11	30
2,6-Dichlorophenol	1	U	1.	0.5	ug/l	104	103	80-116	1	30
Diethylphthalate	5	U	5.	2	ug/l	94	89	70-118	6	30
2,4-Dimethylphenol	1	U	1.	0.5	ug/l	93	91	81-114	3	30
3,5-Dimethylphenol	10	U	10.	3	ug/l	102	95	70-130	7	30
Dimethylphthalate	5	U	5.	2	ug/l	78	79	43-128	1	30
4,6-Dinitro-2-methylphenol	15	U	15.	5	ug/l	102	92	56-145	11	30
2,4-Dinitrophenol	30	U	30.	10	ug/l	98	89	32-148	9	30
1,2-Diphenylhydrazine	1	U	1.	0.5	ug/l	100	94	74-124	5	30
bis(2-Ethylhexyl)phthalate	5	U	5.	2	ug/l	109	90	78-124	19	30
Fluoranthene	0.5	U	0.5	0.1	ug/l	103	94	82-121	9	30
Fluorene	0.5	U	0.5	0.1	ug/l	98	92	80-117	7	30
Hexachlorobenzene	0.5	U	0.5	0.1	ug/l	95	85	80-119	10	30
Hexachlorobutadiene	1	U	1.	0.5	ug/l	70	60*	61-120	16	30
Hexachlorocyclopentadiene	15	U	15.	5	ug/l	65	53	28-133	20	30
Hexachloroethane	5	U	5.	1	ug/l	72	64	55-109	12	30
Indeno(1,2,3-cd)pyrene	0.5	U	0.5	0.1	ug/l	101	88	80-126	13	30
Isophorone	1	U	1.	0.5	ug/l	106	105	82-119	1	30
1-Methylnaphthalene	0.5	U	0.5	0.1	ug/l	92	84	83-116	10	30
2-Methylnaphthalene	0.5	U	0.5	0.1	ug/l	85	80	75-106	6	30
2-Methylphenol	1	U	1.	0.5	ug/l	89	84	72-111	6	30
4-Methylphenol	1	U	1.	0.5	ug/l	85	80	63-110	6	30
Naphthalene	0.5	U	0.5	0.1	ug/l	87	82	75-108	6	30
NDPA as diphenylamine	5	U	5.	2	ug/l	98	92	70-130	6	30
2-Nitroaniline	1	U	1.	0.5	ug/l	96	97	84-122	0	30
3-Nitroaniline	1	U	1.	0.5	ug/l	101	100	70-118	1	30
4-Nitroaniline	1	U	1.	0.5	ug/l	87	91	66-110	5	30
Nitrobenzene	1	U	1.	0.5	ug/l	99	97	77-119	1	30
2-Nitrophenol	1	U	1.	0.5	ug/l	103	97	81-128	6	30
4-Nitrophenol	30	U	30.	10	ug/l	59	54	25-95	9	30
N-Nitroso-di-n-propylamine	1	U	1.	0.5	ug/l	99	99	71-117	0	30
N-Nitrosodimethylamine	5	U	5.	2	ug/l	74	72	38-98	3	30
N-Nitrosodiphenylamine	1	U	1.	0.5	ug/l	98	92	80-115	6	30
Di-n-octylphthalate	5	U	5.	2	ug/l	110	98	78-129	11	30
Pentachlorophenol	5	U	5.	1	ug/l	113	106	54-124	6	30
Phenanthrene	0.5	U	0.5	0.1	ug/l	95	88	81-114	8	30
Phenol	1	U	1.	0.5	ug/l	51	49	31-79	4	30
Pyrene	0.5	U	0.5	0.1	ug/l	94	86	81-112	8	30
Pyridine	5	U	5.	2	ug/l	49	65	22-96	29	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479557
Reported: 07/07/14 at 12:04 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,2,4-Trichlorobenzene	1	U	1.	0.5	ug/l	83	75*	77-111	9	30
2,4,5-Trichlorophenol	1	U	1.	0.5	ug/l	103	92	81-121	11	30
2,4,6-Trichlorophenol	1	U	1.	0.5	ug/l	106	95	84-119	10	30
Batch number: 14163SLB026	Sample number(s): 7488115-7488118									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	103		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	94		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	96		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	100		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	94		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	102		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	88		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	97		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	99		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	89		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	90		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	99		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	101		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	97		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	96		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	89		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	99		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	103		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	97		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	95		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	97		78-121		
Morpholine	20	U	20.	20	ug/kg					
Naphthalene	1.7	U	1.7	0.67	ug/kg	94		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	68*		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	90		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	93		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	89		80-119		
Batch number: 14163SLC026	Sample number(s): 7488115-7488118									
Aniline	330 U		330.	170	ug/kg	74		43-110		
Benzidine	1,700 U		1,700.	700	ug/kg	43		21-78		
Benzoic acid	500 U		500.	170	ug/kg	92		41-122		
Benzyl alcohol	330 U		330.	170	ug/kg	95		81-121		
1,1'-Biphenyl	33	U	33.	17	ug/kg	86		76-117		
4-Bromophenyl-phenylether	33	U	33.	17	ug/kg	92		84-120		
2-butoxy-Ethanol	170 U		170.	170	ug/kg					
Carbazole	33	U	33.	17	ug/kg	85		84-119		
4-Chloro-3-methylphenol	33	U	33.	17	ug/kg	91		86-128		
4-Chloroaniline	33	U	33.	17	ug/kg	41		10-105		
bis(2-Chloroethoxy)methane	33	U	33.	17	ug/kg	84		71-121		
bis(2-Chloroethyl)ether	33	U	33.	17	ug/kg	85		77-115		
bis(2-Chloroisopropyl)ether	33	U	33.	17	ug/kg	83		56-129		
2-Chloronaphthalene	33	U	33.	7	ug/kg	80		63-146		
2-Chlorophenol	33	U	33.	17	ug/kg	91		80-122		
4-Chlorophenyl-phenylether	33	U	33.	17	ug/kg	92		83-115		
Dibenzofuran	33	U	33.	17	ug/kg	87		85-115		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479557
Reported: 07/07/14 at 12:04 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,2-Dichlorobenzene	33	U	33.	17	ug/kg	87		79-112		
1,3-Dichlorobenzene	33	U	33.	17	ug/kg	87		79-113		
1,4-Dichlorobenzene	33	U	33.	17	ug/kg	87		79-112		
3,3'-Dichlorobenzidine	330 U		330.	100	ug/kg	53		10-125		
2,4-Dichlorophenol	33	U	33.	17	ug/kg	95		81-123		
2,6-Dichlorophenol	33	U	33.	17	ug/kg	93	80	77-113	15	30
2,4-Dimethylphenol	33	U	33.	17	ug/kg	90		83-120		
3,5-Dimethylphenol	170 U		170.	33	ug/kg	116		70-130		
4,6-Dinitro-2-methylphenol	500 U		500.	170	ug/kg	93		67-131		
2,4-Dinitrophenol	660 U		660.	300	ug/kg	92		35-141		
1,2-Diphenylhydrazine	33	U	33.	17	ug/kg	86		77-111		
Hexachlorobenzene	17	U	17.	3	ug/kg	98		80-121		
Hexachlorobutadiene	33	U	33.	17	ug/kg	95		78-121		
Hexachlorocyclopentadiene	500 U		500.	170	ug/kg	97		66-159		
Hexachloroethane	170 U		170.	33	ug/kg	83		78-114		
Isophorone	33	U	33.	17	ug/kg	90		77-119		
2-Methylphenol	33	U	33.	17	ug/kg	93		82-125		
4-Methylphenol	33	U	33.	17	ug/kg	88		78-126		
NDPA as diphenylamine	170 U		170.	33	ug/kg	89		70-130		
2-Nitroaniline	33	U	33.	17	ug/kg	94		84-126		
3-Nitroaniline	170 U		170.	67	ug/kg	82		66-128		
4-Nitroaniline	170 U		170.	67	ug/kg	68		57-106		
Nitrobenzene	33	U	33.	17	ug/kg	85		73-118		
2-Nitrophenol	33	U	33.	17	ug/kg	92		83-125		
4-Nitrophenol	500 U		500.	170	ug/kg	79		58-128		
N-Nitroso-di-n-propylamine	33	U	33.	17	ug/kg	81		70-119		
N-Nitrosodiphenylamine	33	U	33.	17	ug/kg	90		83-118		
Pentachlorophenol	170 U		170.	33	ug/kg	91		57-128		
Phenol	33	U	33.	17	ug/kg	90		76-124		
2-phenoxy-Ethanol	170 U		170.	170	ug/kg					
Pyridine	170 U		170.	67	ug/kg	75		51-109		
1,2,3,4-Tetrahydronaphthalene	170 U		170.	33	ug/kg	40*		70-130		
1,2,4-Trichlorobenzene	33	U	33.	17	ug/kg	94		84-119		
2,4,5-Trichlorophenol	33	U	33.	17	ug/kg	95		86-123		
2,4,6-Trichlorophenol	33	U	33.	17	ug/kg	99		81-123		
Batch number: 14157A94A	Sample number(s): 7488113									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	104	104	80-133	1	30
Batch number: 14163A94A	Sample number(s): 7488114									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	98	101	80-133	3	30

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Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14164A16A	Sample number(s): 7488116,7488118								
11a TPH by EPA 8015B GRO	1.0 U	1.0	0.2	mg/kg	77		67-120		
Batch number: 141610009A	Sample number(s): 7488113								
4-Amino-2,6-Dinitrotoluene	0.60 U	0.60	0.30	ug/l	84	90	80-148	7	30
2-Amino-4,6-Dinitrotoluene	0.60 U	0.60	0.20	ug/l	78	81	77-115	3	30
2,6-Diamino-4-nitrotoluene	0.60 U	0.60	0.20	ug/l	80	78	73-121	2	30
2,4-Diamino-6-nitrotoluene	0.60 U	0.60	0.20	ug/l	79	77	72-119	2	30
1,3-Dinitrobenzene	0.60 U	0.60	0.20	ug/l	90	91	85-117	1	30
2,4-Dinitrotoluene	0.60 U	0.60	0.20	ug/l	90	91	83-115	1	30
2,6-Dinitrotoluene	0.60 U	0.60	0.20	ug/l	83	88	77-145	5	30
HMX	2.0 U	2.0	0.65	ug/l	88	96	67-115	9	30
Nitrobenzene	0.60 U	0.60	0.20	ug/l	85	88	80-115	3	30
Nitroglycerin	15 U	15.	5.2	ug/l	87	86	81-115	1	30
2-Nitrotoluene	0.60 U	0.60	0.20	ug/l	84	86	74-115	3	30
3-Nitrotoluene	1.2 U	1.2	0.40	ug/l	91	93	83-118	2	30
4-Nitrotoluene	1.2 U	1.2	0.60	ug/l	83	85	76-120	2	30
PETN	18 U	18.	6.0	ug/l	91	93	81-115	3	30
RDX	0.60 U	0.60	0.20	ug/l	83	88	76-120	6	30
Tetryl	0.60 U	0.60	0.40	ug/l	72	79	47-150	9	30
1,3,5-Trinitrobenzene	0.60 U	0.60	0.20	ug/l	148*	154*	83-115	4	30
2,4,6-Trinitrotoluene	0.60 U	0.60	0.20	ug/l	85	88	84-117	3	30
Batch number: 141610011A	Sample number(s): 7488115-7488118								
4-Amino-2,6-Dinitrotoluene	300 U	300.	150	ug/kg	103		81-133		
2-Amino-4,6-Dinitrotoluene	300 U	300.	100	ug/kg	84		79-120		
2,6-Diamino-4-nitrotoluene	400 U	400.	200	ug/kg	100	89	59-133	11	30
2,4-Diamino-6-nitrotoluene	400 U	400.	200	ug/kg	99	89	58-132	11	30
1,3-Dinitrobenzene	300 U	300.	100	ug/kg	90*		94-124		
2,4-Dinitrotoluene	300 U	300.	100	ug/kg	91		83-125		
2,6-Dinitrotoluene	300 U	300.	100	ug/kg	91		72-137		
HMX	400 U	400.	200	ug/kg	68		65-121		
Nitrobenzene	300 U	300.	100	ug/kg	89		81-116		
Nitroglycerin	2,000 U	2,000.	1,000	ug/kg	72		70-118		
2-Nitrotoluene	300 U	300.	200	ug/kg	93		86-113		
3-Nitrotoluene	300 U	300.	250	ug/kg	88		85-135		
4-Nitrotoluene	300 U	300.	200	ug/kg	85		80-122		
PETN	2,000 U	2,000.	1,000	ug/kg	115		64-121		
RDX	300 U	300.	130	ug/kg	85		84-122		
Tetryl	300 U	300.	160	ug/kg	84		67-152		

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Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,3,5-Trinitrobenzene	300 U		300.	100	ug/kg	96		83-119		
2,4,6-Trinitrotoluene	300 U		300.	100	ug/kg	89		82-133		
Batch number: 141560024A	Sample number(s): 7488115-7488118									
2,4-D	36	U	36.	12	ug/kg	129		68-160		
Dalapon	90	U	90.	44	ug/kg	75		13-128		
2,4-DB	17	U	17.	6.2	ug/kg	129		73-159		
Dicamba	12	U	12.	4.0	ug/kg	125		64-128		
Dinoseb	24	U	24.	9.0	ug/kg	9*		10-56		
2,4-DP (Dichlorprop)	17	U	17.	9.0	ug/kg	174		86-178		
MCPA	2,500 U		2,500.	760	ug/kg	102		61-123		
MCPP (Mecoprop)	2,500 U		2,500.	750	ug/kg	105		59-128		
2,4,5-T	1.7	U	1.7	0.82	ug/kg	139		69-157		
2,4,5-TP	1.7	U	1.7	0.75	ug/kg	137		78-146		
Batch number: 141600003A	Sample number(s): 7488113									
2,4-D	0.50	U	0.50	0.16	ug/l	125	137	68-155	9	30
Dalapon	1.3	U	1.3	0.25	ug/l	51	51	27-127	1	30
2,4-DB	1.0	U	1.0	0.30	ug/l	101	102	60-172	1	30
Dicamba	0.30	U	0.30	0.080	ug/l	123	129	65-142	5	30
Dinoseb	0.50	U	0.50	0.12	ug/l	132	134	16-163	2	30
2,4-DP (Dichlorprop)	0.50	U	0.50	0.16	ug/l					
MCPA	200 U		200.	50	ug/l	120	129*	65-128	7	30
MCPP	200 U		200.	50	ug/l	123	128	61-145	4	30
2,4,5-T	0.050	U	0.050	0.015	ug/l	117	120	67-163	3	30
2,4,5-TP	0.050	U	0.050	0.010	ug/l	121	133	71-162	9	30
Batch number: 141580001A	Sample number(s): 7488115-7488118									
6a Perchlorate (Method 6850)	5.0	U	5.0	2.1	ug/kg	104		85-115		
Batch number: 141600002A	Sample number(s): 7488113									
6b Perchlorate (Method 6850)	1.0	U	1.0	0.20	ug/l	95		85-115		
Batch number: 141580004A	Sample number(s): 7488115-7488118									
Aldrin	0.83	U	0.83	0.17	ug/kg	87		60-118		
Alpha BHC	0.83	U	0.83	0.17	ug/kg	86		55-135		
Beta BHC	1.9	U	1.9	0.96	ug/kg	93		67-129		
Gamma BHC - Lindane	0.83	U	0.83	0.17	ug/kg	92		56-138		
Chlordane	17	U	17.	4.0	ug/kg					
p,p-DDD	1.7	U	1.7	0.33	ug/kg	96		69-141		
p,p-DDE	1.7	U	1.7	0.33	ug/kg	89		69-130		
p,p-DDT	1.7	U	1.7	0.35	ug/kg	85		64-139		
Delta BHC	0.83	U	0.83	0.45	ug/kg	100		59-137		
Dieldrin	1.7	U	1.7	0.33	ug/kg	97		68-134		
Endosulfan I	0.83	U	0.83	0.22	ug/kg	77		56-128		
Endosulfan II	1.7	U	1.7	0.33	ug/kg	90		68-128		
Endosulfan Sulfate	1.7	U	1.7	0.33	ug/kg	101		71-132		
Endrin	1.7	U	1.7	0.33	ug/kg	85		70-132		
Endrin Aldehyde	1.7	U	1.7	0.33	ug/kg	94		61-125		
Endrin Ketone	1.8	U	1.8	0.60	ug/kg	97		69-126		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479557
Reported: 07/07/14 at 12:04 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Heptachlor	0.83	U	0.83	0.17	ug/kg	76		57-130		
Heptachlor Epoxide	0.83	U	0.83	0.17	ug/kg	96		69-125		
Methoxychlor	6.7	U	6.7	1.7	ug/kg	88		67-136		
Mirex	1.7	U	1.7	0.35	ug/kg					
Toxaphene	33	U	33.	14	ug/kg					
Batch number: 141580012A	Sample number(s): 7488115-7488118									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	88	95	36-106	7	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	112		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	112		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141610003A	Sample number(s): 7488113									
Aroclor 5432	0.40	U	0.40	0.080	ug/l					
Aroclor 5442	0.40	U	0.40	0.080	ug/l	80	61	34-115	28	30
Aroclor 5460	0.40	U	0.40	0.088	ug/l					
PCB-1016	0.40	U	0.40	0.080	ug/l	99	101	60-117	2	30
PCB-1221	0.40	U	0.40	0.080	ug/l					
PCB-1232	0.40	U	0.40	0.16	ug/l					
PCB-1242	0.40	U	0.40	0.080	ug/l					
PCB-1248	0.40	U	0.40	0.080	ug/l					
PCB-1254	0.40	U	0.40	0.080	ug/l					
PCB-1260	0.40	U	0.40	0.12	ug/l	102	103	67-128	0	30
PCB-1262	0.40	U	0.40	0.16	ug/l					
PCB-1268	0.40	U	0.40	0.13	ug/l					
Batch number: 141610004A	Sample number(s): 7488113									
Aldrin	0.0080	U	0.0080	0.0016	ug/l	43	35*	37-137	19	30
Alpha BHC	0.0080	U	0.0080	0.0024	ug/l	94	94	44-148	0	30
Beta BHC	0.0038	J	0.0080	0.0027	ug/l	93	91	48-147	3	30
Gamma BHC - Lindane	0.0080	U	0.0080	0.0016	ug/l	96	94	44-146	1	30
Chlordane	0.40	U	0.40	0.13	ug/l					
p,p-DDD	0.016	U	0.016	0.0040	ug/l	99	87	44-152	13	30
p,p-DDE	0.016	U	0.016	0.0040	ug/l	75	64	44-146	17	30
p,p-DDT	0.016	U	0.016	0.0042	ug/l	94	80	44-146	16	30
Delta BHC	0.0080	U	0.0080	0.0027	ug/l	102	96	47-146	5	30
Dieldrin	0.016	U	0.016	0.0042	ug/l	97	89	45-146	9	30
Endosulfan I	0.0080	U	0.0080	0.0034	ug/l	79	71	39-140	11	30
Endosulfan II	0.016	U	0.016	0.012	ug/l	92	83	45-139	10	30
Endosulfan Sulfate	0.016	U	0.016	0.0046	ug/l	100	93	48-139	7	30
Endrin	0.016	U	0.016	0.0065	ug/l	96	86	43-139	11	30
Endrin Aldehyde	0.080	U	0.080	0.016	ug/l	93	88	43-144	5	20
Endrin Ketone	0.016	U	0.016	0.0040	ug/l	96	91	42-152	5	30
Heptachlor	0.0080	U	0.0080	0.0016	ug/l	69	59	36-146	16	30
Heptachlor Epoxide	0.0080	U	0.0080	0.0018	ug/l	97	90	49-142	7	30
Methoxychlor	0.080	U	0.080	0.024	ug/l	81	74	40-150	10	30
Mirex	0.040	U	0.040	0.0080	ug/l					
Toxaphene	0.80	U	0.80	0.24	ug/l					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479557
Reported: 07/07/14 at 12:04 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 141600045A	Sample number(s): 7488113									
Diethylene glycol	10	U	10.	8.0	mg/l	87		46-143		
Ethylene glycol	10	U	10.	8.0	mg/l	77		63-128		
Propylene glycol	10	U	10.	8.0	mg/l	80		62-136		
Triethylene glycol	10	U	10.	8.0	mg/l	81		31-136		
Batch number: 141620008A	Sample number(s): 7488115-7488118									
Diethylene glycol	10	U	10.	5.0	mg/kg	92		54-149		
Ethylene glycol	10	U	10.	5.0	mg/kg	89		76-122		
Propylene glycol	10	U	10.	5.0	mg/kg	92		67-131		
Triethylene glycol	10	U	10.	5.0	mg/kg	87		34-145		
Batch number: 141600016A	Sample number(s): 7488113									
m-Terphenyl	0.0050	U	0.0050	0.0020	mg/l	94	95	61-108	0	20
o-Terphenyl	0.0050	U	0.0050	0.0020	mg/l	94	94	75-125	0	20
p-Terphenyl	0.0050	U	0.0050	0.0020	mg/l	87	87	63-110	1	20
Batch number: 141600033A	Sample number(s): 7488115-7488118									
m-Terphenyl	0.17	U	0.17	0.067	mg/kg	85		64-111		
o-Terphenyl	0.17	U	0.17	0.067	mg/kg	83		75-125		
p-Terphenyl	0.17	U	0.17	0.067	mg/kg	78		69-109		
Batch number: 141600037A	Sample number(s): 7488115-7488118									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	84		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	86		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	85		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	58		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	71		60-115		
Batch number: 141600038A	Sample number(s): 7488115-7488118									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	74*		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	77*		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	78		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	65		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	56*		60-115		
Batch number: 141600042A	Sample number(s): 7488113									
EFH (C12-C14)	0.10	U	0.10	0.050	mg/l	59*	50*	67-109	16	30
EFH (C15-C20)	0.10	U	0.10	0.050	mg/l	92	88	71-119	4	30
EFH (C21-C30)	0.10	U	0.10	0.050	mg/l	91	88	75-117	3	30
EFH (C30 - C40)	0.50	U	0.50	0.10	mg/l	78	61	44-134	24	30
EFH (C8-C11)	0.10	U	0.10	0.050	mg/l	21*	15*	55-86	32*	30
Batch number: 141600043A	Sample number(s): 7488113									
EFH C12-C14 w/ SiGel	0.10	U	0.10	0.050	mg/l	52*	44*	67-109	16	30
EFH C15-C20 w/ SiGel	0.10	U	0.10	0.050	mg/l	82	78	71-119	5	30
EFH C21-C30 w/ SiGel	0.10	U	0.10	0.050	mg/l	85	81	75-117	5	30
EFH C30-C40 w/ SiGel	0.50	U	0.50	0.10	mg/l	83	69	44-134	17	30
EFH C8-C11 w/ SiGel	0.10	U	0.10	0.050	mg/l	16*	12*	55-86	34*	30
Batch number: 141600637001	Sample number(s): 7488115-7488118									
Aluminum	40.0	U	40.0	7.21	mg/kg	104		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	104		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	99		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	99		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479557
Reported: 07/07/14 at 12:04 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Beryllium	1.00	U	1.00	0.0670	mg/kg	102		80-120		
Boron	10.0	U	10.0	0.840	mg/kg	98		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	100		80-120		
Calcium	9.52	J	20.0	3.34	mg/kg	104		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	100		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	103		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	101		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	104		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	102		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	102		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	101		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	102		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	102		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	106		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	102		80-120		
Potassium	100 U		100.	8.34	mg/kg	102		80-120		
Sodium	100 U		100.	16.7	mg/kg	101		80-120		
Tin	1.47	J	10.0	0.220	mg/kg	102		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	101		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	100		80-120		
Zinc	0.541	J	4.00	0.200	mg/kg	101		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	102		80-120		
Batch number: 141600637001A	Sample number(s): 7488115-7488118									
Silver	0.200	U	0.200	0.0260	mg/kg	106		80-120		
Strontium	0.400	U	0.400	0.0680	mg/kg	106		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	111		80-120		
Batch number: 141600637001B	Sample number(s): 7488115-7488118									
Selenium	0.400	U	0.400	0.100	mg/kg	103		80-120		
Batch number: 141600638001	Sample number(s): 7488115-7488118									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	93		85-120		
Batch number: 141640635001	Sample number(s): 7488113									
Aluminum	0.400	U	0.400	0.0828	mg/l	109	106	90-112	3	20
Antimony	0.0400	U	0.0400	0.0053	mg/l	100	98	88-111	1	20
Arsenic	0.0400	U	0.0400	0.0068	mg/l	110	108	90-113	1	20
Barium	0.0100	U	0.0100	0.00033	mg/l	108	107	90-110	1	20
Beryllium	0.0100	U	0.0100	0.00067	mg/l	108	106	90-111	2	20
Boron	0.100	U	0.100	0.0084	mg/l	100	99	90-110	2	20
Cadmium	0.0100	U	0.0100	0.00076	mg/l	110	108	90-112	2	20
Calcium	0.400	U	0.400	0.0334	mg/l	109	106	90-112	2	20
Chromium	0.0300	U	0.0300	0.0016	mg/l	106	103	90-110	3	20
Cobalt	0.0100	U	0.0100	0.0013	mg/l	111	109	90-114	2	20
Copper	0.0200	U	0.0200	0.0027	mg/l	107	104	90-112	2	20
Iron	0.400	U	0.400	0.0430	mg/l	109	107	90-112	2	20
Lead	0.0300	U	0.0300	0.0047	mg/l	110	108	88-116	2	20
Lithium	0.0400	U	0.0400	0.0047	mg/l	108	105	90-110	3	20
Magnesium	0.200	U	0.200	0.0167	mg/l	108	106	89-110	2	20
Manganese	0.0014	J	0.0100	0.00083	mg/l	105	107	90-110	2	20
Molybdenum	0.0200	U	0.0200	0.0017	mg/l	108	106	90-110	2	20
Nickel	0.0016	J	0.0200	0.0015	mg/l	113	111	90-117	2	20
Phosphorus	0.200	U	0.200	0.0418	mg/l	107	104	90-110	3	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479557
Reported: 07/07/14 at 12:04 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Potassium	1.00	U	1.00	0.0980	mg/l	105	102	90-110	3	20
Sodium	2.00	U	2.00	0.167	mg/l	105	102	87-114	3	20
Tin	0.0400	U	0.0400	0.0029	mg/l	106	103	90-110	2	20
Titanium	0.0200	U	0.0200	0.0017	mg/l	108	106	90-113	2	20
Vanadium	0.0100	U	0.0100	0.0020	mg/l	110	108	90-110	2	20
Zinc	0.0047	J	0.0400	0.0020	mg/l	107	106	90-110	2	20
Zirconium	0.0094	J	0.100	0.0084	mg/l	107	104	90-110	3	20
Batch number: 141640639001A	Sample number(s): 7488113									
Silver	0.0010	U	0.0010	0.00011	mg/l	103	103	90-115	1	20
Strontium	0.0020	U	0.0020	0.00034	mg/l	103	102	90-110	1	20
Thallium	0.0010	U	0.0010	0.00015	mg/l	105	101	90-115	3	20
Batch number: 141640639001B	Sample number(s): 7488113									
Selenium	0.0040	U	0.0040	0.00050	mg/l	101	101	90-114	0	20
Batch number: 141645713003	Sample number(s): 7488113									
3b Mercury 7470A	0.00020	U	0.00020	0.00006 0	mg/l	98	94	90-115	4	20
Batch number: 14156987301A	Sample number(s): 7488113									
2b Chromium VI by EPA 7199	10.0	U	10.0	5.0	ug/l	107	105	90-110	2	20
Batch number: 14160243201A	Sample number(s): 7488115-7488118									
2a Chromium VI by EPA 7199	0.40	U	0.40	0.14	mg/kg	95		80-120		
Batch number: 14156004101A	Sample number(s): 7488113									
28b pH (9040B and 9040C)						100		90-110		
Batch number: 14156039402A	Sample number(s): 7488115-7488118									
15a pH by 9045D						100		95-105		
Batch number: 14169162401A	Sample number(s): 7488115-7488118									
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14162001	Sample number(s): 7488113									
2378-TCDD	2.00	U	2.00	0.252	pg/l	101		60-150		
12378-PeCDD	0.241	J	10.0	0.194	pg/l	97		60-150		
123478-HxCDD	0.280	J	10.0	0.164	pg/l	96		60-150		
123678-HxCDD	10.0	U	10.0	0.171	pg/l	94		60-150		
123789-HxCDD	0.251	J	10.0	0.161	pg/l	98		60-150		
1234678-HpCDD	0.811	J	10.0	0.181	pg/l	97		60-150		
OCDD	1.29	J	20.0	0.220	pg/l	94		60-150		
2378-TCDF	2.00	U	2.00	0.174	pg/l	93		60-150		
12378-PeCDF	0.172	J	10.0	0.107	pg/l	96		60-150		
23478-PeCDF	0.109	J	10.0	0.0990	pg/l	98		60-150		
123478-HxCDF	0.176	J	10.0	0.105	pg/l	100		60-150		
123678-HxCDF	0.258	J	10.0	0.0950	pg/l	99		60-150		
123789-HxCDF	0.465	J	10.0	0.109	pg/l	97		60-150		
234678-HxCDF	0.399	J	10.0	0.0930	pg/l	98		60-150		
1234678-HpCDF	0.621	J	10.0	0.0768	pg/l	99		60-150		
1234789-HpCDF	0.299	J	10.0	0.111	pg/l	97		60-150		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479557
Reported: 07/07/14 at 12:04 PM

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
OCDF	1.27	J	20.0	0.252	pg/l	96		60-150		
Batch number: 14162002	Sample number(s): 7488115-7488118									
2378-TCDD	1.00	U	1.00	0.0358	ng/kg	99		67-158		
12378-PeCDD	0.102	J	5.00	0.0327	ng/kg	97		70-142		
123478-HxCDD	5.00	U	5.00	0.0173	ng/kg	97		70-164		
123678-HxCDD	0.0387	J	5.00	0.0180	ng/kg	93		76-134		
123789-HxCDD	0.0242	J	5.00	0.0184	ng/kg	97		64-162		
1234678-HpCDD	0.0740	J	5.00	0.0246	ng/kg	96		70-140		
OCDD	0.176	J	10.0	0.0333	ng/kg	91		78-144		
2378-TCDF	1.00	U	1.00	0.0294	ng/kg	100		75-158		
12378-PeCDF	0.130	J	5.00	0.0164	ng/kg	96		80-134		
23478-PeCDF	0.0960	J	5.00	0.0179	ng/kg	95		68-160		
123478-HxCDF	0.122	J	5.00	0.0189	ng/kg	98		72-134		
123678-HxCDF	0.0571	J	5.00	0.0164	ng/kg	100		84-130		
123789-HxCDF	0.0757	J	5.00	0.0204	ng/kg	96		78-130		
234678-HxCDF	0.0354	J	5.00	0.0181	ng/kg	96		70-156		
1234678-HpCDF	0.0797	J	5.00	0.00952	ng/kg	94		82-122		
1234789-HpCDF	0.0398	J	5.00	0.0205	ng/kg	97		78-138		
OCDF	0.0869	J	10.0	0.0448	ng/kg	97		63-170		
Batch number: 14162001	Sample number(s): 7488113									
TEQ WHO 2005 - EDLx0.0	0.250				pg/l					
Batch number: 14162002	Sample number(s): 7488115-7488118									
TEQ WHO 2005 - EDLx0.0	0.0448				ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14163SLB026	Sample number(s): 7488115-7488118 UNSPK: P492863								
Acenaphthene	88	80	48-127	10	30				
Acenaphthylene	82	75	60-128	10	30				
Anthracene	83	75	52-126	11	30				
Benzo(a)anthracene	86	79	44-143	8	30				
Benzo(a)pyrene	82	74	49-137	10	30				
Benzo(b)fluoranthene	105	95	26-142	10	30				
Benzo(e)pyrene	84	77	63-111	9	30				
Benzo(g,h,i)perylene	42	38	33-141	11	30				
Benzo(k)fluoranthene	102	97	49-144	4	30				
Butylbenzylphthalate	101	81	64-156	18	30				
Di-n-butylphthalate	87	81	52-147	7	30				
Chrysene	88	80	43-141	9	30				
Dibenz(a,h)anthracene	51	46	25-145	9	30				
Diethylphthalate	87	79	66-140	9	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479557
Reported: 07/07/14 at 12:04 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Dimethylphthalate	86	78	70-123	10	30				
Bis(2-Ethylhexyl)phthalate	51	64	48-164	11	30				
Fluoranthene	89	82	38-153	8	30				
Fluorene	89	82	57-130	9	30				
Indeno(1,2,3-cd)pyrene	49	44	26-139	10	30				
1-Methylnaphthalene	85	77	59-139	9	30				
2-Methylnaphthalene	87	79	46-147	10	30				
Naphthalene	86	78	52-136	9	30				
N-Nitrosodimethylamine	61	55	39-134	10	30				
Di-n-octylphthalate	115	109	52-162	6	30				
Phenanthrene	85	77	50-137	10	30				
Pyrene	75	69	26-143	8	30				
Batch number: 14163SLC026	Sample number(s): 7488115-7488118 UNSPK: 7488116								
Aniline	67	63	10-131	6	30				
Benzidine	23*	14*	35-141	52*	30				
Benzoic acid	67	74	23-170	10	30				
Benzyl alcohol	98	94	32-145	4	30				
1,1'-Biphenyl	88	84	64-120	4	30				
4-Bromophenyl-phenylether	94	91	66-122	3	30				
Carbazole	87	84	63-126	4	30				
4-Chloro-3-methylphenol	91	88	61-131	3	30				
4-Chloroaniline	52	41	11-114	24	30				
bis(2-Chloroethoxy)methane	85	82	58-122	4	30				
bis(2-Chloroethyl)ether	86	83	66-122	3	30				
bis(2-Chloroisopropyl)ether	83	81	50-115	2	30				
2-Chloronaphthalene	80	79	50-140	1	30				
2-Chlorophenol	90	89	71-130	1	30				
4-Chlorophenyl-phenylether	98	91	65-117	7	30				
Dibenzofuran	94	85	65-124	10	30				
1,2-Dichlorobenzene	89	85	72-114	5	30				
1,3-Dichlorobenzene	87	82	67-118	6	30				
1,4-Dichlorobenzene	88	83	68-119	6	30				
3,3'-Dichlorobenzidine	58	56	10-143	4	30				
2,4-Dichlorophenol	96	94	54-135	2	30				
2,4-Dimethylphenol	89	84	62-132	6	30				
3,5-Dimethylphenol	116	114	70-130	1	30				
4,6-Dinitro-2-methylphenol	95	91	10-148	4	30				
2,4-Dinitrophenol	86	86	20-143	0	30				
1,2-Diphenylhydrazine	88	84	51-145	4	30				
Hexachlorobenzene	99	97	46-132	2	30				
Hexachlorobutadiene	97	90	65-125	7	30				
Hexachlorocyclopentadiene	100	95	10-153	6	30				
Hexachloroethane	82	80	24-138	3	30				
Isophorone	92	88	68-119	4	30				
2-Methylphenol	91	90	62-133	1	30				
4-Methylphenol	86	85	59-132	1	30				
NDPA as diphenylamine	90	87	70-130	4	30				
2-Nitroaniline	92	92	64-131	1	30				
3-Nitroaniline	84	81	31-145	4	30				
4-Nitroaniline	77	68	30-131	12	30				
Nitrobenzene	86	81	63-125	6	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479557
Reported: 07/07/14 at 12:04 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
2-Nitrophenol	93	89	45-146	5	30				
4-Nitrophenol	84	74	25-142	14	30				
N-Nitroso-di-n-propylamine	82	81	58-126	1	30				
N-Nitrosodiphenylamine	92	88	59-135	4	30				
Pentachlorophenol	96	90	23-145	6	30				
Phenol	88	87	61-130	1	30				
Pyridine	74	76	16-108	3	30				
1,2,3,4-Tetrahydronaphthalene	30*	37*	70-130	19	30				
1,2,4-Trichlorobenzene	95	91	66-116	5	30				
2,4,5-Trichlorophenol	94	92	64-131	3	30				
2,4,6-Trichlorophenol	97	94	60-136	3	30				
Batch number: 14164A16A	Sample number(s): 7488116,7488118 UNSPK: P494363								
11a TPH by EPA 8015B GRO	80	80	69-123	6	30				
Batch number: 141610011A	Sample number(s): 7488115-7488118 UNSPK: 7488115								
4-Amino-2,6-Dinitrotoluene	110	97	85-118	13	50				
2-Amino-4,6-Dinitrotoluene	92	81	69-113	12	50				
1,3-Dinitrobenzene	99	89	89-119	10	50				
2,4-Dinitrotoluene	99	89	81-111	11	50				
2,6-Dinitrotoluene	98	86	86-114	13	50				
HMX	73	64*	72-107	13	50				
Nitrobenzene	97	86	86-108	12	50				
Nitroglycerin	199*	174*	73-116	13	50				
2-Nitrotoluene	99	89	79-112	10	50				
3-Nitrotoluene	94	86	72-119	9	50				
4-Nitrotoluene	92	82*	90-118	11	50				
PETN	179*	162*	71-133	10	50				
RDX	87	77	75-108	12	50				
Tetryl	86	77	58-125	11	50				
1,3,5-Trinitrobenzene	101	90	58-135	11	50				
2,4,6-Trinitrotoluene	97	86*	92-114	12	50				
Batch number: 141560024A	Sample number(s): 7488115-7488118 UNSPK: P485078								
2,4-D	138	133	42-143	3	35				
Dalapon	80	79	16-98	1	50				
2,4-DB	130	128	10-179	1	50				
Dicamba	123	124	47-150	0	50				
Dinoseb	20	22	10-115	10	35				
2,4-DP (Dichlorprop)	168	167	32-171	1	50				
MCPA	112	107	54-138	5	50				
MCPP (Mecoprop)	108	106	46-138	2	50				
2,4,5-T	155	149	12-172	3	35				
2,4,5-TP	137	139	65-156	2	35				
Batch number: 141580001A	Sample number(s): 7488115-7488118 UNSPK: 7488115								
6a Perchlorate (Method 6850)	104	102	80-120	2	20				
Batch number: 141600002A	Sample number(s): 7488113 UNSPK: 7488113								
6b Perchlorate (Method 6850)	97	97	80-120	0	20				
Batch number: 141580004A	Sample number(s): 7488115-7488118 UNSPK: P485078								

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479557
Reported: 07/07/14 at 12:04 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Aldrin	97	91	16-126	5	50				
Alpha BHC	82	82	14-140	1	50				
Beta BHC	102	95	42-133	7	50				
Gamma BHC - Lindane	100	95	30-137	5	50				
p,p-DDD	103	100	43-149	2	50				
p,p-DDE	99	94	35-152	4	50				
p,p-DDT	98	92	12-193	6	50				
Delta BHC	109	102	13-153	6	50				
Dieldrin	104	100	41-153	4	50				
Endosulfan I	82	79	26-146	3	50				
Endosulfan II	97	92	34-141	5	50				
Endosulfan Sulfate	111	106	10-181	3	50				
Endrin	93	88	30-152	4	50				
Endrin Aldehyde	100	95	23-138	4	50				
Endrin Ketone	105	101	30-148	3	50				
Heptachlor	84	80	16-152	5	50				
Heptachlor Epoxide	102	98	33-144	4	50				
Methoxychlor	100	94	41-161	6	50				
Batch number: 141580012A	Sample number(s): 7488115-7488118 UNSPK: 7488115								
PCB-1016	116	114	41-135	1	50				
PCB-1260	120	120	40-134	0	50				
Batch number: 141600045A	Sample number(s): 7488113 UNSPK: 7488113								
Diethylene glycol	86	102	50-166	18	20				
Ethylene glycol	84	104	50-155	22*	20				
Propylene glycol	86	110	54-145	24*	20				
Triethylene glycol	80	98	50-133	21*	20				
Batch number: 141620008A	Sample number(s): 7488115-7488118 UNSPK: 7488115								
Diethylene glycol	12*	15*	59-109	22*	20				
Ethylene glycol	64	78	63-107	20	20				
Propylene glycol	76	92	63-107	19	20				
Triethylene glycol	0*	4*	66-122	200*	20				
Batch number: 141600033A	Sample number(s): 7488115-7488118 UNSPK: 7488115								
m-Terphenyl	339*	93	75-125	105*	20				
o-Terphenyl	83	81	75-125	2	20				
p-Terphenyl	181*	80	75-125	61*	20				
Batch number: 141600037A	Sample number(s): 7488115-7488118 UNSPK: P489904								
EFH (C12-C14)	94	90	49-123	4	20				
EFH (C15-C20)	91	92	49-123	1	20				
EFH (C21-C30)	100	101	49-123	0	20				
EFH (C30-C40)	134*	156*	49-123	5	20				
EFH (C8-C11)	94	101	49-123	7	20				
Batch number: 141600038A	Sample number(s): 7488115-7488118 UNSPK: P489904								
EFH C12-C14 w/ SiGel	71	76	49-123	6	20				
EFH C15-C20 w/ SiGel	75	79	49-123	5	20				
EFH C21-C30 w/ SiGel	77	83	49-123	6	20				
EFH C30-C40 w/ SiGel	77	87	49-123	10	20				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479557
Reported: 07/07/14 at 12:04 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
EFH C8-C11 w/ SiGel	54	58	49-123	8	20				
Batch number: 141600637001	Sample number(s): 7488115-7488118 UNSPK: 7488115 BKG: 7488115								
Aluminum	2266 (2)	2288 (2)	75-125	1	20	17,900	18,700	5	20
Antimony	34*	35*	75-125	5	20	3.85 U	3.92 U	0 (1)	20
Arsenic	103	100	75-125	0	20	2.25 J	2.75 J	20 (1)	20
Barium	103	105	75-125	3	20	102	107	5	20
Beryllium	103	103	75-125	3	20	0.698 J	0.751 J	7 (1)	20
Boron	99	99	75-125	3	20	7.62 J	7.18 J	6 (1)	20
Cadmium	94	93	75-125	2	20	0.283 J	0.244 J	15 (1)	20
Calcium	111 (2)	103 (2)	75-125	0	20	3,180	3,190	0	20
Chromium	109	106	75-125	0	20	20.5	21.5	5	20
Cobalt	93	92	75-125	2	20	5.97	6.34	6	20
Copper	106	106	75-125	2	20	9.57	9.78	2 (1)	20
Iron	1070 (2)	177 (2)	75-125	4	20	21,800	23,200	6	20
Lead	90	88	75-125	0	20	9.34	10.0	7 (1)	20
Lithium	102	102	75-125	3	20	19.4	20.1	4	20
Magnesium	184 (2)	131 (2)	75-125	2	20	4,130	4,210	2	20
Manganese	104 (2)	96 (2)	75-125	1	20	317	346	9	20
Molybdenum	93	92	75-125	3	20	0.438 J	0.276 J	45* (1)	20
Nickel	96	95	75-125	1	20	11.7	11.9	2	20
Phosphorus	89	76	75-125	3	20	229	230	0	20
Potassium	125	121	75-125	0	20	2,790	2,770	1	20
Sodium	99	100	75-125	3	20	78.9 J	79.0 J	0 (1)	20
Tin	87	86	75-125	2	20	3.21 J	3.28 J	2 (1)	20
Titanium	337 (2)	359 (2)	75-125	2	20	991	1,020	3	20
Vanadium	110	110	75-125	2	20	38.8	41.4	6	20
Zinc	94	91	75-125	0	20	49.1	48.3	2	20
Zirconium	97	97	75-125	3	20	3.68 J	4.36 J	17 (1)	20
Batch number: 141600637001A	Sample number(s): 7488115-7488118 UNSPK: 7488115 BKG: 7488115								
Silver	107	105	75-125	1	20	0.0373 J	0.0429 J	14 (1)	20
Strontium	92	86	75-125	1	20	21.7	24.5	12	20
Thallium	110	104	75-125	1	20	0.288	0.341	17 (1)	20
Batch number: 141600637001B	Sample number(s): 7488115-7488118 UNSPK: 7488115 BKG: 7488115								
Selenium	101	96	75-125	2	20	0.288 J	0.324 J	12 (1)	20
Batch number: 141600638001	Sample number(s): 7488115-7488118 UNSPK: 7488115 BKG: 7488115								
3a Mercury 7471A	102	103	65-135	3	20	0.0155 U	0.0164 U	0 (1)	20
Batch number: 14160243201A	Sample number(s): 7488115-7488118 UNSPK: 7488116 BKG: 7488116								
2a Chromium VI by EPA 7199	88		75-125			0.40 U	0.41 U	0 (1)	20
Batch number: 14156004101A	Sample number(s): 7488113 BKG: P486472								
28b pH (9040B and 9040C)						7.6	7.7	0	3
Batch number: 14156039402A	Sample number(s): 7488115-7488118 BKG: 7488115								
15a pH by 9045D						7.77	7.75	0	3

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479557
Reported: 07/07/14 at 12:04 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14169162401A	Sample number(s): 7488115-7488118					BKG: P494357			
14a Moisture Content by 160.3						6.6	7.9	18	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7b SVOC SIM EPA 8270D
Batch number: 14161WAH026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7488113	106	111	95
Blank	105	110	90
LCS	103	111	87
LCSD	102	110	87
Limits:	59-128	62-141	70-134

Analysis Name: 8b SVOCs by EPA 8270D
Batch number: 14161WAI026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
7488113	47	69	91	97	93	103
Blank	51	75	104	115	105	119
LCS	50	68	93	97	92	101
LCSD	47	63	88	95	86	87
Limits:	20-110	20-110	30-110	40-130	45-130	45-130

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14163SLB026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7488115	81	87	74
7488116	98	104	87
7488117	96	101	87
7488118	89	98	81
Blank	94	101	87
LCS	100	106	92
MS	90	97	85
MSD	82	91	77
Limits:	59-115	61-118	70-127

Analysis Name: 8a SVOCs by EPA 8270D

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479557
Reported: 07/07/14 at 12:04 PM

Surrogate Quality Control

Batch number: 14163SLC026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
7488115	87	97	92	86	87	100
7488116	67	78	78	69	75	86
7488117	74	84	86	72	79	84
7488118	75	87	88	76	76	91
Blank	75	88	87	79	83	95
LCS	82	95	93	80	87	91
LCSD	77	87	89			
MS	83	97	98	83	89	97
MSD	82	95	95	80	87	95
Limits:	25-120	25-130	35-130	40-130	45-130	45-130

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14157A94A

	Trifluorotoluene-F
7488113	90
Blank	86
LCS	94
LCSD	93
Limits:	63-135

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14163A94A

	Trifluorotoluene-F
7488114	86
Blank	85
LCS	92
LCSD	94
Limits:	63-135

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 14164A16A

	Trifluorotoluene-F
7488116	95
7488118	88
Blank	101
LCS	94
MS	81
MSD	75
Limits:	50-142

Analysis Name: 21a Herbicides by EPA 8151A
Batch number: 141560024A

	2,4-Dichlorophenylacetic acid
7488115	89

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479557
Reported: 07/07/14 at 12:04 PM

Surrogate Quality Control

7488116	98	
7488117	96	
7488118	90	
Blank	61	
LCS	115	
MS	111	
MSD	109	
Limits:	50-150	

Analysis Name: 20a Pesticides by EPA 8081B
Batch number: 141580004A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7488115	85	98
7488116	84	98
7488117	88	103
7488118	77	90
Blank	98	105
LCS	89	99
MS	98	108
MSD	93	105
Limits:	50-130	20-120

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141580012A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7488115	126*	119
7488116	122*	111
7488117	120	114
7488118	126*	121*
Blank	123*	116
LCS	118	112
LCSD	124*	116
MS	121*	115
MSD	120	115
Limits:	45-120	45-120

Analysis Name: 24b Herbicides by EPA 8151A
Batch number: 141600003A

	2,4-Dichlorophenylacetic acid
7488113	87
Blank	84
LCS	104
LCSD	111
Limits:	50-150

Analysis Name: 21b PCBs and PCTs 8082A
Batch number: 141610003A

	Tetrachloro-m-xylene	Decachlorobiphenyl

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479557
Reported: 07/07/14 at 12:04 PM

Surrogate Quality Control

7488113	90	84
Blank	91	86
LCS	99	90
LCSD	100	87
Limits:	45-120	45-120

Analysis Name: 22b Pesticides by EPA 8081B
Batch number: 141610004A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7488113	115	106
Blank	101	95
LCS	84	80
LCSD	74	61
Limits:	60-140	20-120

Analysis Name: 18b Energetics by 8330A
Batch number: 141610009A

	2-Nitro-m-xylene
7488113	107
Blank	94
LCS	111
LCSD	80
Limits:	80-146

Analysis Name: 24a Energetics by 8330A
Batch number: 141610011A

	2-Nitro-m-xylene
7488115	106
7488116	104
7488117	117
7488118	95
Blank	109
LCS	101
LCSD	95
MS	102
MSD	93
Limits:	80-146

Analysis Name: 23b Terphenyls by 8015B
Batch number: 141600016A

	n-Triacontane-d62
7488113	98
Blank	107
LCS	103
LCSD	101
Limits:	36-160

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479557
Reported: 07/07/14 at 12:04 PM

Surrogate Quality Control

Analysis Name: 27a Terphenyls by 8015B
Batch number: 141600033A

	n-Triacontane-d62
7488115	97
7488116	98
7488117	90
7488118	102
Blank	91
LCS	97
MS	95
MSD	99
Limits:	19-152

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141600037A

	Chlorobenzene	Orthoterphenyl
7488115	83	88
7488116	88	94
7488117	91	97
7488118	94	92
Blank	70	84
LCS	82	84
MS	84	90
MSD	82	86
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141600038A

	Chlorobenzene	Orthoterphenyl
7488115	64	72
7488116	70	77
7488117	73	84
7488118	68	76
Blank	65	83
LCS	67	76
MS	66	74
MSD	74	86
Limits:	37-125	66-123

Analysis Name: 10b TPH by EPA 8015B (DRO)
Batch number: 141600042A

	Chlorobenzene	Orthoterphenyl
7488113	76	81
Blank	75	78
LCS	81	84
LCSD	76	80
Limits:	45-126	69-119

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479557
Reported: 07/07/14 at 12:04 PM

Surrogate Quality Control

Analysis Name: 10b TPH-DRO (w/Si Gel)
Batch number: 141600043A

	Chlorobenzene	Orthoterphenyl
7488113	68	84
Blank	67	81
LCS	68	77
LCSD	62	73
Limits:	45-126	69-119

Analysis Name: 20b Glycols by EPA 8015C
Batch number: 141600045A

	Tetramethylene glycol
7488113	99
Blank	98
LCS	110
MS	108
MSD	120
Limits:	58-141

Analysis Name: 26a Glycols by EPA 8015C
Batch number: 141620008A

	Tetramethylene glycol
7488115	90
7488116	90
7488117	90
7488118	88
Blank	72*
LCS	98
MS	95
MSD	92
Limits:	75-116

Analysis Name: 17b Dioxin/Furan by EPA 1613B
Batch number: 14162001

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7488113	91	85	86	87	85	77
Blank	83	93	95	97	95	84
OPR	76	91	89	90	88	80
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7488113	60	84	91	87	87	91
Blank	70	85	97	95	96	101
OPR	67	76	90	91	86	89
Limits:	17-157	24-169	24-185	21-178	26-152	26-123

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479557
Reported: 07/07/14 at 12:04 PM

Surrogate Quality Control

	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF
7488113	86	99	85	67	55
Blank	98	99	95	75	63
OPR	87	86	85	72	60
Limits:	28-136	29-147	28-143	26-138	17-157

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 14162002

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7488115	70	62	72	75	72	70
7488116	53	58	66	69	65	64
7488117	78	71	79	81	77	74
7488118	84	78	86	89	85	79
Blank	57	63	67	70	66	61
OPR	68	71	76	76	75	67
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7488115	59	62	68	56	62	73
7488116	53	48	60	51	53	64
7488117	61	64	75	64	66	78
7488118	65	70	89	72	75	90
Blank	48	53	69	58	62	74
OPR	53	58	75	67	66	77
Limits:	17-157	24-169	24-185	21-178	26-152	26-123

	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF
7488115	62	68	90	48	42
7488116	56	57	79	42	39
7488117	68	70	94	50	43
7488118	77	77	100	56	50
Blank	61	64	79	44	35
OPR	68	69	84	50	40
Limits:	28-136	29-147	28-143	26-138	17-157

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

A-13013
G-1479557
S-7488113-18

CDM Smith

DateShipped: 6/4/2014
CarrierName: FedEx
AirbillNo: 770197160010

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140604-06
Cooler #: 3
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
EB3-060414	6/4/14 10:30	WQ	None	6 - 1 L Amber	10 day									X							X				X					X											
EB3-060414	6/4/14 10:30	WQ	HCl	2 - 1 L Amber	10 day																					X																

Special Instructions: For all EFH, silica gel cleanup required on half the extract. Analyze both for EFH.

Sampler: Andrew Paw

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	06/04/14	1600									
										6-5-14	915

Trench Sampling 1 of 3

SSFL Phase 3 Chain of Custody

A-13013
G-1479557
S-7488113-18

CDM Smith

DateShipped: 6/4/2014
CarrierName: FedEx
AirbillNo: 770197160010

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140604-07
Cooler #: 4
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
EB3-060414	6/4/14 10:30	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	X		X																																
EB3-060414	6/4/14 10:30	WQ	None	4 - 250 mL Amber	10 day					X		X			X							X																			
EB3-060414	6/4/14 10:30	WQ	None	3 - 40 mL Vial	10 day												X									X														
EB3-060414	6/4/14 10:30	WQ	None	2 - 250 mL Poly	10 day														X	X																				
EB3-060414	6/4/14 10:30	WQ	HCl	1 - 1 L Amber	10 day																								X											
EB3-060414	6/4/14 10:30	WQ	HCl	3 - 40 mL Vial	10 day																				X															

Special Instructions:

Sampler: Andy Pam

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Stephanie Meyer	06/04/14	1600									
									Ben Bun	6-5-14	915

Trench Sampling 2 of 3

SSFL Phase 3 Chain of Custody

CDM Smith

A-13013
G-1479557
S-7488113-18

DateShipped: 6/4/2014
CarrierName: FedEx
AirbillNo: 770197160010

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140604-08
Cooler #: 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
TB2-060414	6/4/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																			X																	
SL-655-SA5C-TR-0.5	6/4/14 07:45	SO	None	2 - 16 oz glass	10 day	X	X			X		X		X	X		X	X		X	X	X			X	X		X		X										
SL-655-SA5C-TR-5.0	6/4/14 08:00	SO	None	2 - 16 oz glass	10 day	X	X			X		X		X	X		X	X		X	X	X			X	X		X		X										
SL-655-SA5C-TR-5.0	6/4/14 08:00	SO	None	2 - Encore	10 day																			X																	
SL-646-SA5C-TR-0.5	6/4/14 11:30	SO	None	2 - 16 oz glass	10 day	X	X			X		X		X	X		X	X		X	X	X			X	X		X		X										
SL-646-SA5C-TR-5.0	6/4/14 11:45	SO	None	2 - 16 oz glass	10 day	X	X			X		X		X	X		X	X		X	X	X			X	X		X		X										
SL-646-SA5C-TR-5.0	6/4/14 11:45	SO	None	2 - Encore	10 day																			X																	

For all EFH, silica gel cleanup required on half the extract. Analyze both for EFH.

Special Instructions:

Sampler: Andrew Payne

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Stefan Mysepo	06/04/14	1000									
									Burl Shaw	6.5.14	915

Trench Sampling 3 of 3

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Sample Administration Receipt Documentation Log

Doc Log ID: 16484

Group Number(s): 1479557

Client: CDM

SSFL

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	06/05/2014 9:15
Number of Packages:	4	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Brandy Barclay (2299) at 11:15 on 06/05/2014

Samples Chilled Details: SSFL

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT146	1.2	DT	Wet	Y	Bagged	N	N
2	DT146	1.5	DT	Wet	Y	Bagged	N	N
3	DT146	1.5	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

July 07, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 06/06/2014
Group Number: 1479940
SDG: PH219
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB2-060514 Water	7489860
SVL-552-SA5A-SB-1.5-2.0 Soil	7489861
SVL-554-SA5A-SB-1.5-2.0 Soil	7489862
SVL-529-SA5A-SB-4.0-4.5 Soil	7489863

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: TB2-060514 Water
SSFL Phase 3 Subarea 5A

LL Sample # WW 7489860
LL Group # 1479940
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 08:00

Submitted: 06/06/2014 09:15
Reported: 07/07/2014 12:13

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB265 SDG#: PH219-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	1	U	1	0.5	1
10335	Benzene	71-43-2	1	U	1	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	1	U	1	0.5	1
10335	Bromoform	75-25-2	4	U	4	0.5	1
10335	Bromomethane	74-83-9	1	U	1	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	1	U	1	0.5	1
10335	Chlorobenzene	108-90-7	1	U	1	0.5	1
10335	Chloroethane	75-00-3	1	U	1	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	1	U	1	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	1	U	1	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	1	U	1	0.5	1
10335	1,2-Dibromoethane	106-93-4	1	U	1	0.5	1
10335	Dibromomethane	74-95-3	1	U	1	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	1	U	1	0.5	1
10335	1,1-Dichloroethane	75-34-3	1	U	1	0.5	1
10335	1,2-Dichloroethane	107-06-2	1	U	1	0.5	1
10335	1,1-Dichloroethene	75-35-4	1	U	1	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	1	U	1	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	1	U	1	0.5	1
10335	1,2-Dichloropropane	78-87-5	1	U	1	0.5	1
10335	1,3-Dichloropropane	142-28-9	1	U	1	0.5	1
10335	2,2-Dichloropropane	594-20-7	1	U	1	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	1	U	1	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	1	U	1	0.5	1
10335	Ethyl t-butyl ether	637-92-3	1	U	1	0.5	1
10335	Ethylbenzene	100-41-4	1	U	1	0.5	1
10335	Freon 113	76-13-1	10	U	10	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: TB2-060514 Water
SSFL Phase 3 Subarea 5A

LL Sample # WW 7489860
LL Group # 1479940
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 08:00

Submitted: 06/06/2014 09:15
Reported: 07/07/2014 12:13

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB265 SDG#: PH219-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	1	U	1	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	1	U	1	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	1	U	1	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	3	U	3	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	1	U	1	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	1	U	1	0.5	1
10335	Tetrachloroethene	127-18-4	1	U	1	0.5	1
10335	Toluene	108-88-3	1	U	1	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	1	U	1	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	1	U	1	0.5	1
10335	Trichloroethene	79-01-6	1	U	1	0.5	1
10335	Trichlorofluoromethane	75-69-4	1	U	1	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	1	U	1	0.5	1
10335	m+p-Xylene	179601-23-1	1	U	1	0.5	1
10335	o-Xylene	95-47-6	1	U	1	0.5	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141621AA	06/11/2014 10:42	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141621AA	06/11/2014 10:42	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-552-SA5A-SB-1.5-2.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7489861
LL Group # 1479940
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 11:38 by VV

Submitted: 06/06/2014 09:15
Reported: 07/07/2014 12:13

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55215 SDG#: PH219-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	22	U	22	8	1.05
10237	Acrolein	107-02-8	110	U	110	22	1.05
10237	Acrylonitrile	107-13-1	22	U	22	4	1.05
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	1.05
10237	Benzene	71-43-2	5	U	5	0.5	1.05
10237	Bromobenzene	108-86-1	5	U	5	1	1.05
10237	Bromochloromethane	74-97-5	5	U	5	1	1.05
10237	Bromodichloromethane	75-27-4	5	U	5	1	1.05
10237	Bromoform	75-25-2	5	U	5	1	1.05
10237	Bromomethane	74-83-9	5	U	5	2	1.05
10237	2-Butanone	78-93-3	11	U	11	4	1.05
10237	t-Butyl alcohol	75-65-0	55	U	55	22	1.05
10237	n-Butylbenzene	104-51-8	5	U	5	1	1.05
10237	sec-Butylbenzene	135-98-8	5	U	5	1	1.05
10237	tert-Butylbenzene	98-06-6	5	U	5	1	1.05
10237	Carbon Disulfide	75-15-0	5	U	5	1	1.05
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	1.05
10237	Chlorobenzene	108-90-7	5	U	5	1	1.05
10237	Chloroethane	75-00-3	5	U	5	2	1.05
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	1.05
10237	Chloroform	67-66-3	5	U	5	1	1.05
10237	1-Chlorohexane	544-10-5	5	U	5	1	1.05
10237	Chloromethane	74-87-3	5	U	5	2	1.05
10237	2-Chlorotoluene	95-49-8	5	U	5	1	1.05
10237	4-Chlorotoluene	106-43-4	5	U	5	1	1.05
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	1.05
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1.05
10237	Dibromochloromethane	124-48-1	5	U	5	1	1.05
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	1.05
10237	Dibromomethane	74-95-3	5	U	5	1	1.05
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1.05
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1.05
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1.05
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	1.05
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	1.05
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	1.05
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	1.05
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	1.05
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	1.05
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	1.05
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	1.05
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	1.05
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	1.05
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	1.05
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	1.05
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	1.05
10237	Ethylbenzene	100-41-4	5	U	5	1	1.05
10237	Freon 113	76-13-1	5	U	5	2	1.05
10237	Freon 133a	75-88-7	5	U	5	2	1.05
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	1.05
10237	2-Hexanone	591-78-6	11	U	11	3	1.05

*=This limit was used in the evaluation of the final result

Sample Description: SVL-552-SA5A-SB-1.5-2.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7489861
LL Group # 1479940
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 11:38 by VV

Submitted: 06/06/2014 09:15
Reported: 07/07/2014 12:13

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55215 SDG#: PH219-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	1.05
10237	Isopropylbenzene	98-82-8	5	U	5	1	1.05
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	1.05
10237	Methyl Iodide	74-88-4	5	U	5	3	1.05
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1.05
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	1.05
10237	Methylene Chloride	75-09-2	5	U	5	2	1.05
10237	n-Propylbenzene	103-65-1	5	U	5	1	1.05
10237	Styrene	100-42-5	5	U	5	1	1.05
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	1.05
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	1.05
10237	Tetrachloroethene	127-18-4	5	U	5	1	1.05
10237	Toluene	108-88-3	5	U	5	1	1.05
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1.05
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1.05
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	1.05
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	1.05
10237	Trichloroethene	79-01-6	5	U	5	1	1.05
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	1.05
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1.05
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1.05
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1.05
10237	Vinyl Acetate	108-05-4	11	U	11	2	1.05
10237	Vinyl Chloride	75-01-4	5	U	5	1	1.05
10237	m+p-Xylene	179601-23-1	5	U	5	1	1.05
10237	o-Xylene	95-47-6	5	U	5	1	1.05
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	4.3		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141612AA	06/10/2014 22:37	Chelsea B Stong	1.05
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201415734733	06/06/2014 15:37	Lisa J Cooke	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-552-SA5A-SB-1.5-2.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7489861
LL Group # 1479940
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 11:38 by VV

Submitted: 06/06/2014 09:15
Reported: 07/07/2014 12:13

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55215 SDG#: PH219-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201415734733	06/06/2014 15:37	Lisa J Cooke	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201415734733	06/06/2014 15:12	Lisa J Cooke	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14162162401B	06/11/2014 20:09	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-554-SA5A-SB-1.5-2.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7489862
LL Group # 1479940
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 12:46 by VV

Submitted: 06/06/2014 09:15
Reported: 07/07/2014 12:13

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55415 SDG#: PH219-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	22	U	22	8	1.04
10237	Acrolein	107-02-8	110	U	110	22	1.04
10237	Acrylonitrile	107-13-1	22	U	22	4	1.04
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	1.04
10237	Benzene	71-43-2	5	U	5	0.5	1.04
10237	Bromobenzene	108-86-1	5	U	5	1	1.04
10237	Bromochloromethane	74-97-5	5	U	5	1	1.04
10237	Bromodichloromethane	75-27-4	5	U	5	1	1.04
10237	Bromoform	75-25-2	5	U	5	1	1.04
10237	Bromomethane	74-83-9	5	U	5	2	1.04
10237	2-Butanone	78-93-3	11	U	11	4	1.04
10237	t-Butyl alcohol	75-65-0	54	U	54	22	1.04
10237	n-Butylbenzene	104-51-8	5	U	5	1	1.04
10237	sec-Butylbenzene	135-98-8	5	U	5	1	1.04
10237	tert-Butylbenzene	98-06-6	5	U	5	1	1.04
10237	Carbon Disulfide	75-15-0	5	U	5	1	1.04
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	1.04
10237	Chlorobenzene	108-90-7	5	U	5	1	1.04
10237	Chloroethane	75-00-3	5	U	5	2	1.04
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	1.04
10237	Chloroform	67-66-3	5	U	5	1	1.04
10237	1-Chlorohexane	544-10-5	5	U	5	1	1.04
10237	Chloromethane	74-87-3	5	U	5	2	1.04
10237	2-Chlorotoluene	95-49-8	5	U	5	1	1.04
10237	4-Chlorotoluene	106-43-4	5	U	5	1	1.04
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	1.04
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1.04
10237	Dibromochloromethane	124-48-1	5	U	5	1	1.04
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	1.04
10237	Dibromomethane	74-95-3	5	U	5	1	1.04
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1.04
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1.04
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1.04
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	1.04
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	1.04
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	1.04
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	1.04
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	1.04
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	1.04
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	1.04
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	1.04
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	1.04
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	1.04
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	1.04
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	1.04
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	1.04
10237	Ethylbenzene	100-41-4	5	U	5	1	1.04
10237	Freon 113	76-13-1	5	U	5	2	1.04
10237	Freon 133a	75-88-7	5	U	5	2	1.04
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	1.04
10237	2-Hexanone	591-78-6	11	U	11	3	1.04

*=This limit was used in the evaluation of the final result

Sample Description: SVL-554-SA5A-SB-1.5-2.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7489862
LL Group # 1479940
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 12:46 by VV

Submitted: 06/06/2014 09:15
Reported: 07/07/2014 12:13

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55415 SDG#: PH219-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	1.04
10237	Isopropylbenzene	98-82-8	5	U	5	1	1.04
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	1.04
10237	Methyl Iodide	74-88-4	5	U	5	3	1.04
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1.04
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	1.04
10237	Methylene Chloride	75-09-2	5	U	5	2	1.04
10237	n-Propylbenzene	103-65-1	5	U	5	1	1.04
10237	Styrene	100-42-5	5	U	5	1	1.04
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	1.04
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	1.04
10237	Tetrachloroethene	127-18-4	5	U	5	1	1.04
10237	Toluene	108-88-3	5	U	5	1	1.04
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1.04
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1.04
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	1.04
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	1.04
10237	Trichloroethene	79-01-6	5	U	5	1	1.04
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	1.04
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1.04
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1.04
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1.04
10237	Vinyl Acetate	108-05-4	11	U	11	2	1.04
10237	Vinyl Chloride	75-01-4	5	U	5	1	1.04
10237	m+p-Xylene	179601-23-1	5	U	5	1	1.04
10237	o-Xylene	95-47-6	5	U	5	1	1.04
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	4.1		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141612AA	06/10/2014 23:00	Chelsea B Stong	1.04
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201415734733	06/06/2014 15:37	Lisa J Cooke	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-554-SA5A-SB-1.5-2.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7489862
LL Group # 1479940
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 12:46 by VV

Submitted: 06/06/2014 09:15
Reported: 07/07/2014 12:13

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55415 SDG#: PH219-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201415734733	06/06/2014 15:37	Lisa J Cooke	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201415734733	06/06/2014 15:14	Lisa J Cooke	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14162162401B	06/11/2014 20:09	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-529-SA5A-SB-4.0-4.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7489863
LL Group # 1479940
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 15:04 by VV

Submitted: 06/06/2014 09:15
Reported: 07/07/2014 12:13

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52940 SDG#: PH219-04*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	21	U	21	7	1.01
10237	Acrolein	107-02-8	110	U	110	21	1.01
10237	Acrylonitrile	107-13-1	21	U	21	4	1.01
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	1.01
10237	Benzene	71-43-2	5	U	5	0.5	1.01
10237	Bromobenzene	108-86-1	5	U	5	1	1.01
10237	Bromochloromethane	74-97-5	5	U	5	1	1.01
10237	Bromodichloromethane	75-27-4	5	U	5	1	1.01
10237	Bromoform	75-25-2	5	U	5	1	1.01
10237	Bromomethane	74-83-9	5	U	5	2	1.01
10237	2-Butanone	78-93-3	11	U	11	4	1.01
10237	t-Butyl alcohol	75-65-0	53	U	53	21	1.01
10237	n-Butylbenzene	104-51-8	5	U	5	1	1.01
10237	sec-Butylbenzene	135-98-8	5	U	5	1	1.01
10237	tert-Butylbenzene	98-06-6	5	U	5	1	1.01
10237	Carbon Disulfide	75-15-0	5	U	5	1	1.01
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	1.01
10237	Chlorobenzene	108-90-7	5	U	5	1	1.01
10237	Chloroethane	75-00-3	5	U	5	2	1.01
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	1.01
10237	Chloroform	67-66-3	5	U	5	1	1.01
10237	1-Chlorohexane	544-10-5	5	U	5	1	1.01
10237	Chloromethane	74-87-3	5	U	5	2	1.01
10237	2-Chlorotoluene	95-49-8	5	U	5	1	1.01
10237	4-Chlorotoluene	106-43-4	5	U	5	1	1.01
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	1.01
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1.01
10237	Dibromochloromethane	124-48-1	5	U	5	1	1.01
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	1.01
10237	Dibromomethane	74-95-3	5	U	5	1	1.01
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1.01
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1.01
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1.01
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	1.01
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	1.01
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	1.01
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	1.01
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	1.01
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	1.01
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	1.01
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	1.01
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	1.01
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	1.01
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	1.01
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	1.01
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	1.01
10237	Ethylbenzene	100-41-4	5	U	5	1	1.01
10237	Freon 113	76-13-1	5	U	5	2	1.01
10237	Freon 133a	75-88-7	5	U	5	2	1.01
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	1.01
10237	2-Hexanone	591-78-6	11	U	11	3	1.01

*=This limit was used in the evaluation of the final result

Sample Description: SVL-529-SA5A-SB-4.0-4.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7489863
LL Group # 1479940
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 15:04 by VV

Submitted: 06/06/2014 09:15
Reported: 07/07/2014 12:13

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52940 SDG#: PH219-04*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	1.01
10237	Isopropylbenzene	98-82-8	5	U	5	1	1.01
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	1.01
10237	Methyl Iodide	74-88-4	5	U	5	3	1.01
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1.01
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	1.01
10237	Methylene Chloride	75-09-2	5	U	5	2	1.01
10237	n-Propylbenzene	103-65-1	5	U	5	1	1.01
10237	Styrene	100-42-5	5	U	5	1	1.01
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	1.01
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	1.01
10237	Tetrachloroethene	127-18-4	5	U	5	1	1.01
10237	Toluene	108-88-3	5	U	5	1	1.01
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1.01
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1.01
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	1.01
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	1.01
10237	Trichloroethene	79-01-6	5	U	5	1	1.01
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	1.01
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1.01
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1.01
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1.01
10237	Vinyl Acetate	108-05-4	11	U	11	2	1.01
10237	Vinyl Chloride	75-01-4	5	U	5	1	1.01
10237	m+p-Xylene	179601-23-1	5	U	5	1	1.01
10237	o-Xylene	95-47-6	5	U	5	1	1.01
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	4.5		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141612AA	06/10/2014 23:22	Chelsea B Stong	1.01
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201415734733	06/06/2014 15:37	Lisa J Cooke	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-529-SA5A-SB-4.0-4.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7489863
LL Group # 1479940
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 15:04 by VV

Submitted: 06/06/2014 09:15
Reported: 07/07/2014 12:13

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52940 SDG#: PH219-04*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201415734733	06/06/2014 15:37	Lisa J Cooke	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201415734733	06/06/2014 15:16	Lisa J Cooke	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14162162401B	06/11/2014 20:09	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479940
Reported: 07/07/14 at 12:13 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B141612AA	Sample number(s): 7489861-7489863									
Acetone	20	U	20.	7	ug/kg	106		41-149		
Acrolein	100 U		100.	20	ug/kg	88		50-137		
Acrylonitrile	20	U	20.	4	ug/kg	103		58-123		
t-Amyl methyl ether	5	U	5.	1	ug/kg	99		63-130		
Benzene	5	U	5.	0.5	ug/kg	106		80-120		
Bromobenzene	5	U	5.	1	ug/kg	99		78-120		
Bromochloromethane	5	U	5.	1	ug/kg	113		75-129		
Bromodichloromethane	5	U	5.	1	ug/kg	102		75-120		
Bromoform	5	U	5.	1	ug/kg	99		70-126		
Bromomethane	5	U	5.	2	ug/kg	106		32-162		
2-Butanone	10	U	10.	4	ug/kg	101		47-136		
t-Butyl alcohol	50	U	50.	20	ug/kg	121		66-133		
n-Butylbenzene	5	U	5.	1	ug/kg	97		72-120		
sec-Butylbenzene	5	U	5.	1	ug/kg	96		69-120		
tert-Butylbenzene	5	U	5.	1	ug/kg	97		75-120		
Carbon Disulfide	5	U	5.	1	ug/kg	107		63-128		
Carbon Tetrachloride	5	U	5.	1	ug/kg	110		69-130		
Chlorobenzene	5	U	5.	1	ug/kg	104		80-120		
Chloroethane	5	U	5.	2	ug/kg	100		17-171		
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/kg	87		52-134		
Chloroform	5	U	5.	1	ug/kg	111		80-120		
1-Chlorohexane	5	U	5.	1	ug/kg	81		70-130		
Chloromethane	5	U	5.	2	ug/kg	103		56-120		
2-Chlorotoluene	5	U	5.	1	ug/kg	98		78-120		
4-Chlorotoluene	5	U	5.	1	ug/kg	100		79-120		
Chlorotrifluoroethene	5	U	5.	2	ug/kg	79		22-131		
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/kg	99		50-132		
Dibromochloromethane	5	U	5.	1	ug/kg	105		77-120		
1,2-Dibromoethane	5	U	5.	1	ug/kg	104		80-120		
Dibromomethane	5	U	5.	1	ug/kg	106		75-120		
1,2-Dichlorobenzene	5	U	5.	1	ug/kg	100		80-120		
1,3-Dichlorobenzene	5	U	5.	1	ug/kg	97		80-120		
1,4-Dichlorobenzene	5	U	5.	1	ug/kg	99		80-120		
Dichlorodifluoromethane	5	U	5.	2	ug/kg	107		26-137		
1,1-Dichloroethane	5	U	5.	1	ug/kg	105		71-122		
1,2-Dichloroethane	5	U	5.	1	ug/kg	109		66-136		
1,1-Dichloroethene	5	U	5.	1	ug/kg	116		73-129		
cis-1,2-Dichloroethene	5	U	5.	1	ug/kg	109		80-120		
trans-1,2-Dichloroethene	5	U	5.	1	ug/kg	113		79-120		
1,2-Dichloropropane	5	U	5.	1	ug/kg	101		77-120		
1,3-Dichloropropane	5	U	5.	1	ug/kg	99		73-120		
2,2-Dichloropropane	5	U	5.	1	ug/kg	110		72-123		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479940
Reported: 07/07/14 at 12:13 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/kg	112		77-120		
cis-1,3-Dichloropropene	5	U	5.	1	ug/kg	102		74-120		
trans-1,3-Dichloropropene	5	U	5.	1	ug/kg	100		69-120		
Ethyl t-butyl ether	5	U	5.	1	ug/kg	103		59-134		
Ethylbenzene	5	U	5.	1	ug/kg	103		80-120		
Freon 113	5	U	5.	2	ug/kg	105		64-137		
Freon 133a	5	U	5.	2	ug/kg	104		78-120		
Hexachlorobutadiene	5	U	5.	2	ug/kg	94		46-130		
2-Hexanone	10	U	10.	3	ug/kg	95		40-129		
di-Isopropyl ether	5	U	5.	1	ug/kg	104		68-128		
Isopropylbenzene	5	U	5.	1	ug/kg	103		76-120		
p-Isopropyltoluene	5	U	5.	1	ug/kg	93		69-120		
Methyl Iodide	5	U	5.	3	ug/kg	115		72-130		
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/kg	108		69-126		
4-Methyl-2-pentanone	10	U	10.	3	ug/kg	102		43-133		
Methylene Chloride	5	U	5.	2	ug/kg	117		80-124		
n-Propylbenzene	5	U	5.	1	ug/kg	100		77-120		
Styrene	5	U	5.	1	ug/kg	102		76-120		
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/kg	103		80-120		
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/kg	99		71-123		
Tetrachloroethene	5	U	5.	1	ug/kg	98		78-120		
Toluene	5	U	5.	1	ug/kg	102		80-120		
1,2,3-Trichlorobenzene	5	U	5.	1	ug/kg	94		64-120		
1,2,4-Trichlorobenzene	5	U	5.	1	ug/kg	96		68-120		
1,1,1-Trichloroethane	5	U	5.	1	ug/kg	101		63-135		
1,1,2-Trichloroethane	5	U	5.	1	ug/kg	104		80-120		
Trichloroethene	5	U	5.	1	ug/kg	108		80-120		
Trichlorofluoromethane	5	U	5.	2	ug/kg	103		58-133		
1,2,3-Trichloropropane	5	U	5.	1	ug/kg	104		71-123		
1,2,4-Trimethylbenzene	5	U	5.	1	ug/kg	99		79-120		
1,3,5-Trimethylbenzene	5	U	5.	1	ug/kg	99		78-120		
Vinyl Acetate	10	U	10.	2	ug/kg	65		40-127		
Vinyl Chloride	5	U	5.	1	ug/kg	107		59-120		
m+p-Xylene	5	U	5.	1	ug/kg	104		80-120		
o-Xylene	5	U	5.	1	ug/kg	101		80-120		
Batch number: Y141621AA	Sample number(s): 7489860									
Acetone	20	U	20.	6	ug/l	93	93	43-149	1	30
Acrolein	100 U		100.	40	ug/l	73	74	52-129	0	30
Acrylonitrile	20	U	20.	4	ug/l	93	93	62-120	1	30
t-Amyl methyl ether	1	U	1.	0.5	ug/l	94	95	75-120	2	30
Benzene	1	U	1.	0.5	ug/l	95	98	78-120	2	30
Bromobenzene	5	U	5.	1	ug/l	99	99	80-120	1	30
Bromochloromethane	5	U	5.	1	ug/l	99	100	80-121	1	30
Bromodichloromethane	1	U	1.	0.5	ug/l	94	96	73-120	2	30
Bromoform	4	U	4.	0.5	ug/l	87	87	61-120	1	30
Bromomethane	1	U	1.	0.5	ug/l	101	103	58-120	1	30
2-Butanone	10	U	10.	3	ug/l	89	89	54-133	0	30
t-Butyl alcohol	50	U	50.	5	ug/l	98	97	75-120	0	30
n-Butylbenzene	5	U	5.	1	ug/l	89	91	68-120	3	30
sec-Butylbenzene	5	U	5.	1	ug/l	93	95	80-120	2	30
tert-Butylbenzene	5	U	5.	1	ug/l	95	96	73-120	1	30
Carbon Disulfide	5	U	5.	1	ug/l	90	91	58-126	0	30
Carbon Tetrachloride	1	U	1.	0.5	ug/l	103	104	74-130	1	30
Chlorobenzene	1	U	1.	0.5	ug/l	96	98	80-120	2	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479940
Reported: 07/07/14 at 12:13 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroethane	1	U	1.	0.5	ug/l	93	97	56-120	5	30
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/l	105	108	54-126	3	30
Chloroform	1	U	1.	0.5	ug/l	100	100	80-122	0	30
1-Chlorohexane	5	U	5.	1	ug/l	81	84	80-120	3	30
Chloromethane	1	U	1.	0.5	ug/l	101	106	63-120	5	30
2-Chlorotoluene	5	U	5.	1	ug/l	93	95	80-120	2	30
4-Chlorotoluene	5	U	5.	1	ug/l	94	95	80-120	1	30
Chlorotrifluoroethene	5	U	5.	2	ug/l	55	54	47-120	1	30
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/l	86	86	56-120	0	30
Dibromochloromethane	1	U	1.	0.5	ug/l	96	97	72-120	1	30
1,2-Dibromoethane	1	U	1.	0.5	ug/l	100	100	76-120	1	30
Dibromomethane	1	U	1.	0.5	ug/l	94	95	80-120	1	30
1,2-Dichlorobenzene	5	U	5.	1	ug/l	95	96	80-120	1	30
1,3-Dichlorobenzene	5	U	5.	1	ug/l	96	97	80-120	1	30
1,4-Dichlorobenzene	5	U	5.	1	ug/l	97	98	80-120	2	30
Dichlorodifluoromethane	1	U	1.	0.5	ug/l	103	103	48-132	1	30
1,1-Dichloroethane	1	U	1.	0.5	ug/l	92	98	80-120	6	30
1,2-Dichloroethane	1	U	1.	0.5	ug/l	100	103	65-135	3	30
1,1-Dichloroethene	1	U	1.	0.5	ug/l	109	111	76-124	2	30
cis-1,2-Dichloroethene	1	U	1.	0.5	ug/l	97	98	80-120	1	30
trans-1,2-Dichloroethene	1	U	1.	0.5	ug/l	113	115	80-120	2	30
1,2-Dichloropropane	1	U	1.	0.5	ug/l	91	94	80-120	3	30
1,3-Dichloropropane	1	U	1.	0.5	ug/l	93	93	80-120	1	30
2,2-Dichloropropane	1	U	1.	0.5	ug/l	98	97	67-124	1	30
1,1-Dichloropropene	5	U	5.	1	ug/l	101	103	80-120	3	30
cis-1,3-Dichloropropene	1	U	1.	0.5	ug/l	90	92	80-120	2	30
trans-1,3-Dichloropropene	1	U	1.	0.5	ug/l	91	92	76-120	0	30
Ethyl t-butyl ether	1	U	1.	0.5	ug/l	94	97	74-120	2	30
Ethylbenzene	1	U	1.	0.5	ug/l	95	96	79-120	1	30
Freon 113	10	U	10.	2	ug/l	98	98	67-127	1	30
Freon 133a	5	U	5.	2	ug/l	98	100	46-152	2	30
Hexachlorobutadiene	5	U	5.	2	ug/l	87	91	51-125	4	30
2-Hexanone	10	U	10.	3	ug/l	88	88	44-126	0	30
di-Isopropyl ether	1	U	1.	0.5	ug/l	94	95	65-120	1	30
Isopropylbenzene	5	U	5.	1	ug/l	96	97	77-120	1	30
p-Isopropyltoluene	5	U	5.	1	ug/l	93	93	80-120	1	30
Methyl Iodide	1	U	1.	0.5	ug/l	107	109	75-128	2	30
Methyl Tertiary Butyl Ether	1	U	1.	0.5	ug/l	108	108	75-120	1	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	90	91	51-124	1	30
Methylene Chloride	3	U	3.	2	ug/l	107	109	80-120	2	30
n-Propylbenzene	5	U	5.	1	ug/l	94	96	80-120	2	30
Styrene	5	U	5.	1	ug/l	96	97	80-120	1	30
1,1,1,2-Tetrachloroethane	1	U	1.	0.5	ug/l	98	99	80-120	1	30
1,1,2,2-Tetrachloroethane	1	U	1.	0.5	ug/l	89	89	70-120	1	30
Tetrachloroethene	1	U	1.	0.5	ug/l	103	107	80-120	4	30
Toluene	1	U	1.	0.5	ug/l	96	96	80-120	0	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	90	94	58-126	3	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	94	96	65-120	2	30
1,1,1-Trichloroethane	1	U	1.	0.5	ug/l	89	90	66-126	1	30
1,1,2-Trichloroethane	1	U	1.	0.5	ug/l	94	95	80-120	1	30
Trichloroethene	1	U	1.	0.5	ug/l	100	102	80-120	3	30
Trichlorofluoromethane	1	U	1.	0.5	ug/l	100	100	65-130	1	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	94	94	76-120	0	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	96	97	74-120	2	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	96	97	74-120	1	30
Vinyl Acetate	10	U	10.	2	ug/l	77	76	56-135	1	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479940
Reported: 07/07/14 at 12:13 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vinyl Chloride	1	U	1.	0.5	ug/l	99	103	63-120	3	30
m+p-Xylene	1	U	1.	0.5	ug/l	94	97	80-120	3	30
o-Xylene	1	U	1.	0.5	ug/l	94	96	80-120	2	30
Batch number: 14162162401B	Sample number(s): 7489861-7489863									
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: B141612AA	Sample number(s): 7489861-7489863 UNSPK: P488099								
Acetone	89	96	31-195	6	30				
Acrolein	85	89	10-165	4	30				
Acrylonitrile	87	85	48-139	4	30				
t-Amyl methyl ether	94	97	50-132	2	30				
Benzene	105	105	55-143	1	30				
Bromobenzene	103	103	43-139	1	30				
Bromochloromethane	124	115	60-137	9	30				
Bromodichloromethane	97	97	53-136	1	30				
Bromoform	93	91	50-144	4	30				
Bromomethane	111	112	42-168	0	30				
2-Butanone	81	86	37-163	4	30				
t-Butyl alcohol	126	123	47-153	4	30				
n-Butylbenzene	97	99	30-146	1	30				
sec-Butylbenzene	103	104	33-157	1	30				
tert-Butylbenzene	105	107	41-152	0	30				
Carbon Disulfide	112	111	48-146	2	30				
Carbon Tetrachloride	114	114	51-165	1	30				
Chlorobenzene	105	103	49-135	3	30				
Chloroethane	107	106	39-152	3	30				
2-Chloroethyl Vinyl Ether	70	78	32-139	9	30				
Chloroform	108	108	61-142	1	30				
1-Chlorohexane	94	98	70-130	2	30				
Chloromethane	109	112	36-143	1	30				
2-Chlorotoluene	104	103	42-146	2	30				
4-Chlorotoluene	105	105	39-145	2	30				
Chlorotrifluoroethene	91	108	70-130	16	30				
1,2-Dibromo-3-chloropropane	85	88	34-165	1	30				
Dibromochloromethane	105	98	51-128	8	30				
1,2-Dibromoethane	100	99	54-129	2	30				
Dibromomethane	94	98	57-130	2	30				
1,2-Dichlorobenzene	97	100	36-133	2	30				
1,3-Dichlorobenzene	101	103	34-134	1	30				
1,4-Dichlorobenzene	101	101	35-136	1	30				
Dichlorodifluoromethane	123	123	26-151	1	30				
1,1-Dichloroethane	103	103	63-142	1	30				
1,2-Dichloroethane	103	106	54-143	2	30				
1,1-Dichloroethene	121	119	61-149	3	30				
cis-1,2-Dichloroethene	106	108	67-135	0	30				

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479940
Reported: 07/07/14 at 12:13 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
trans-1,2-Dichloroethene	120	112	64-144	8	30				
1,2-Dichloropropane	98	98	54-144	1	30				
1,3-Dichloropropane	96	95	51-140	2	30				
2,2-Dichloropropane	109	111	53-147	0	30				
1,1-Dichloropropene	113	114	54-145	1	30				
cis-1,3-Dichloropropene	94	96	45-137	1	30				
trans-1,3-Dichloropropene	100	98	51-134	3	30				
Ethyl t-butyl ether	95	97	58-124	1	30				
Ethylbenzene	109	106	44-141	4	30				
Freon 113	114	111	56-156	4	30				
Freon 133a	111	132*	61-131	17	30				
Hexachlorobutadiene	90	84	10-155	8	30				
2-Hexanone	80	81	32-160	0	30				
di-Isopropyl ether	98	99	59-133	0	30				
Isopropylbenzene	106	103	38-144	4	30				
p-Isopropyltoluene	102	98	29-152	5	30				
Methyl Iodide	116	115	52-139	2	30				
Methyl Tertiary Butyl Ether	98	99	55-129	0	30				
4-Methyl-2-pentanone	80	84	46-139	4	30				
Methylene Chloride	112	117	60-149	4	30				
n-Propylbenzene	106	107	39-157	0	30				
Styrene	104	107	35-134	2	30				
1,1,1,2-Tetrachloroethane	106	104	55-139	3	30				
1,1,2,2-Tetrachloroethane	90	95	29-182	4	30				
Tetrachloroethene	109	107	42-149	4	30				
Toluene	110	106	50-146	4	30				
1,2,3-Trichlorobenzene	79	85	10-140	6	30				
1,2,4-Trichlorobenzene	85	88	10-136	2	30				
1,1,1-Trichloroethane	106	106	52-146	1	30				
1,1,2-Trichloroethane	102	99	58-152	4	30				
Trichloroethene	107	107	53-144	1	30				
Trichlorofluoromethane	117	117	47-163	0	30				
1,2,3-Trichloropropane	98	102	36-180	3	30				
1,2,4-Trimethylbenzene	106	104	37-149	3	30				
1,3,5-Trimethylbenzene	105	106	38-150	0	30				
Vinyl Acetate	55	64	21-139	16	30				
Vinyl Chloride	114	117	50-154	1	30				
m+p-Xylene	109	106	44-137	4	30				
o-Xylene	105	102	42-137	4	30				
Batch number: 14162162401B Sample number(s): 7489861-7489863 BKG: 7489863									
14a Moisture Content by 160.3						4.5	4.4	1	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12a Volatile Organics EPA8260B

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479940
Reported: 07/07/14 at 12:13 PM

Surrogate Quality Control

Batch number: B141612AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7489861	108	105	99	94
7489862	110	105	96	93
7489863	107	101	97	92
Blank	104	104	100	96
LCS	108	113	103	103
MS	101	100	104	101
MSD	102	99	102	99
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141621AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7489860	101	99	97	95
Blank	100	98	96	95
LCS	100	96	97	97
LCSD	101	98	97	98
Limits:	86-118	80-120	88-110	86-115

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/5/2014 A-13013
CarrierName: FedEx G-479940
AirbillNo: 770212567524 S-748986O-63

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140605-03
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7470 (Water)	Mercury 7471 (Soil)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate Confirm 6850/6860	Perchlorate 314.0/331	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
TB2-060514	6/5/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																		X																		
SVL-552-SA5A-SB-1.5-2.0	6/5/14 11:38	SO	None	3 - Encore	10 day																		X																		
SVL-552-SA5A-SB-1.5-2.0	6/5/14 11:38	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture
SVL-554-SA5A-SB-1.5-2.0	6/5/14 12:46	SO	None	3 - Encore	10 day																		X																		
SVL-554-SA5A-SB-1.5-2.0	6/5/14 12:46	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture
SVL-529-SA5A-SB-4.0-4.5	6/5/14 15:04	SO	None	3 - Encore	10 day																		X																		
SVL-529-SA5A-SB-4.0-4.5	6/5/14 15:04	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture

Special Instructions:

Sampler: Van Vathanasin

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	06/05/14	1600									
									[illegible]	6.6.14	915

Soil Vapor 1 of 1

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Sample Administration Receipt Documentation Log

Doc Log ID: 16617

Group Number(s): 1479940

Client: CDM

SSFL

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	06/06/2014 9:15
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Brandy Barclay (2299) at 10:35 on 06/06/2014

Samples Chilled Details: SSFL

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT146	1.4	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 24, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 06/06/2014
Group Number: 1479956
SDG: PH220
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
EB-060514 Water	7489903
FDG2-SL-631-SA8-SB-0.0-0.5 Soil	7489904
FDG2-SL-631-SA8-SB-4.5-5.0 Soil	7489905
FDG2-SL-631-SA8-SB-7.0-8.0 Soil	7489906
TB1-060514 Water	7489907
FDG2-SL-624-SA8-SB-0.0-0.5 Soil	7489908
FDG2-SL-625-SA8-SB-0.0-0.5 Soil	7489909

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: EB-060514 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7489903
LL Group # 1479956
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 15:00 by PH

Submitted: 06/06/2014 09:15
Reported: 06/24/2014 09:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB65- SDG#: PH220-01EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	
12971	Acenaphthene	83-32-9	0.053	U	0.053	0.011	1
12971	Acenaphthylene	208-96-8	0.053	U	0.053	0.011	1
12971	Anthracene	120-12-7	0.053	U	0.053	0.011	1
12971	Benzo(a)anthracene	56-55-3	0.053	U	0.053	0.011	1
12971	Benzo(a)pyrene	50-32-8	0.053	U	0.053	0.011	1
12971	Benzo(b)fluoranthene	205-99-2	0.053	U	0.053	0.011	1
12971	Benzo(e)pyrene	192-97-2	0.053	U	0.053	0.011	1
12971	Benzo(g,h,i)perylene	191-24-2	0.053	U	0.053	0.011	1
12971	Benzo(k)fluoranthene	207-08-9	0.053	U	0.053	0.011	1
12971	Butylbenzylphthalate	85-68-7	1.1	U	1.1	0.053	1
12971	Di-n-butylphthalate	84-74-2	0.098	J	1.1	0.053	1
12971	Chrysene	218-01-9	0.053	U	0.053	0.011	1
12971	Dibenz(a,h)anthracene	53-70-3	0.053	U	0.053	0.011	1
12971	Diethylphthalate	84-66-2	0.090	J	1.1	0.053	1
12971	Dimethylphthalate	131-11-3	1.1	U	1.1	0.053	1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	1.0	J	1.1	0.053	1
12971	Fluoranthene	206-44-0	0.053	U	0.053	0.011	1
12971	Fluorene	86-73-7	0.053	U	0.053	0.011	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.053	U	0.053	0.011	1
12971	1-Methylnaphthalene	90-12-0	0.024	J	0.053	0.011	1
12971	2-Methylnaphthalene	91-57-6	0.034	J	0.053	0.011	1
12971	Naphthalene	91-20-3	0.072		0.053	0.032	1
12971	N-Nitrosodimethylamine	62-75-9	0.053	U	0.053	0.011	1
12971	Di-n-octylphthalate	117-84-0	1.1	U	1.1	0.053	1
12971	Phenanthrene	85-01-8	0.053	U	0.053	0.032	1
12971	Pyrene	129-00-0	0.053	U	0.053	0.011	1

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The recovery for a target analyte (s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted and the QC is again outside of the acceptance limits. The data is reported from the initial trial. Similar results were obtained in both trials.

GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1
Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	
13092	Aroclor 5432	63496-31-1	0.42	U	0.42	0.084	1
13092	Aroclor 5442	12642-23-8	0.42	U	0.42	0.084	1
13092	Aroclor 5460	11126-42-4	0.42	U	0.42	0.093	1
13092	PCB-1016	12674-11-2	0.42	U	0.42	0.084	1
13092	PCB-1221	11104-28-2	0.42	U	0.42	0.084	1
13092	PCB-1232	11141-16-5	0.42	U	0.42	0.17	1
13092	PCB-1242	53469-21-9	0.42	U	0.42	0.084	1
13092	PCB-1248	12672-29-6	0.42	U	0.42	0.084	1
13092	PCB-1254	11097-69-1	0.42	U	0.42	0.084	1
13092	PCB-1260	11096-82-5	0.42	U	0.42	0.13	1
13092	PCB-1262	37324-23-5	0.42	U	0.42	0.17	1
13092	PCB-1268	11100-14-4	0.42	U	0.42	0.14	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-060514 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7489903
LL Group # 1479956
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 15:00 by PH

Submitted: 06/06/2014 09:15
Reported: 06/24/2014 09:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB65- SDG#: PH220-01EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**	**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.10 U	0.10	0.050	1
10365	EFH (C15-C20)	n.a.	0.10 U	0.10	0.050	1
10365	EFH (C21-C30)	n.a.	0.10 U	0.10	0.050	1
10365	EFH (C30 - C40)	n.a.	0.50 U	0.50	0.10	1
10365	EFH (C8-C11)	n.a.	0.10 U	0.10	0.050	1
13205	EFH C12-C14 w/ SiGel	n.a.	0.10 U	0.10	0.050	1
13205	EFH C15-C20 w/ SiGel	n.a.	0.10 U	0.10	0.050	1
13205	EFH C21-C30 w/ SiGel	n.a.	0.10 U	0.10	0.050	1
13205	EFH C30-C40 w/ SiGel	n.a.	0.50 U	0.50	0.10	1
13205	EFH C8-C11 w/ SiGel	n.a.	0.10 U	0.10	0.050	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted and the QC is again outside of the acceptance limits. The data is reported from the initial trial.
The reverse surrogate, capric acid, is present at <1%.
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted and the QC is again outside of the acceptance limits. The data is reported from the initial trial.

Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400 U	0.400	0.0828	1
07044	Antimony	7440-36-0	0.0400 U	0.0400	0.0053	1
07035	Arsenic	7440-38-2	0.0400 U	0.0400	0.0068	1
07046	Barium	7440-39-3	0.0100 U	0.0100	0.00033	1
07047	Beryllium	7440-41-7	0.0100 U	0.0100	0.00067	1
08014	Boron	7440-42-8	0.100 U	0.100	0.0084	1
07049	Cadmium	7440-43-9	0.0100 U	0.0100	0.00076	1
01750	Calcium	7440-70-2	0.400 U	0.400	0.0334	1
07051	Chromium	7440-47-3	0.0300 U	0.0300	0.0016	1
07052	Cobalt	7440-48-4	0.0100 U	0.0100	0.0013	1
07053	Copper	7440-50-8	0.0200 U	0.0200	0.0027	1
01754	Iron	7439-89-6	0.400 U	0.400	0.0430	1
07055	Lead	7439-92-1	0.0300 U	0.0300	0.0047	1
01756	Lithium	7439-93-2	0.0400 U	0.0400	0.0047	1
01757	Magnesium	7439-95-4	0.200 U	0.200	0.0167	1
07058	Manganese	7439-96-5	0.0013 J	0.0100	0.00083	1
07060	Molybdenum	7439-98-7	0.0200 U	0.0200	0.0017	1
07061	Nickel	7440-02-0	0.0200 U	0.0200	0.0015	1
10143	Phosphorus	7723-14-0	0.200 U	0.200	0.0418	1
01762	Potassium	7440-09-7	1.00 U	1.00	0.0980	1
01767	Sodium	7440-23-5	2.00 U	2.00	0.167	1
07069	Tin	7440-31-5	0.0400 U	0.0400	0.0029	1
07070	Titanium	7440-32-6	0.0200 U	0.0200	0.0017	1
07071	Vanadium	7440-62-2	0.0100 U	0.0100	0.0020	1
07072	Zinc	7440-66-6	0.0400 U	0.0400	0.0020	1
10144	Zirconium	7440-67-7	0.0109 J	0.100	0.0084	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-060514 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7489903
LL Group # 1479956
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 15:00 by PH

Submitted: 06/06/2014 09:15
Reported: 06/24/2014 09:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB65- SDG#: PH220-01EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Metals	**SW-846 6020A**		**mg/l**	**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040 U	0.0040	0.00050	1
06042	Silver	7440-22-4	0.0010 U	0.0010	0.00011	1
06044	Strontium	7440-24-6	0.0020 U	0.0020	0.00034	1
06045	Thallium	7440-28-0	0.0010 U	0.0010	0.00015	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A	7439-97-6	0.00020 U	0.00020	0.000060	1
Wet Chemistry	**SW-846 9040C**		**Std. Units**	**Std. Units**	**Std. Units**	
12152	28b pH (9040B and 9040C)	n.a.	6.3	0.010	0.010	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-060514 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7489903
LL Group # 1479956
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 15:00 by PH

Submitted: 06/06/2014 09:15
Reported: 06/24/2014 09:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB65- SDG#: PH220-01EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	
10915	2378-TCDD	1746-01-6	1.94	U	1.94	0.245	1
10915	12378-PeCDD	40321-76-4	0.218	JBQ	9.72	0.205	1
10915	123478-HxCDD	39227-28-6	9.72	U	9.72	0.138	1
10915	123678-HxCDD	57653-85-7	9.72	U	9.72	0.140	1
10915	123789-HxCDD	19408-74-3	0.141	JBQ	9.72	0.141	1
10915	1234678-HpCDD	35822-46-9	0.193	JBQ	9.72	0.169	1
10915	OCDD	3268-87-9	1.75	JB	19.4	0.221	1
10915	2378-TCDF	51207-31-9	1.94	U	1.94	0.146	1
10915	12378-PeCDF	57117-41-6	0.544	JBQ	9.72	0.107	1
10915	23478-PeCDF	57117-31-4	9.72	U	9.72	0.101	1
10915	123478-HxCDF	70648-26-9	0.395	JBQ	9.72	0.105	1
10915	123678-HxCDF	57117-44-9	0.313	JB	9.72	0.103	1
10915	123789-HxCDF	72918-21-9	0.154	JBQ	9.72	0.120	1
10915	234678-HxCDF	60851-34-5	0.225	JBQ	9.72	0.0970	1
10915	1234678-HpCDF	67562-39-4	0.444	JBQ	9.72	0.0762	1
10915	1234789-HpCDF	55673-89-7	0.245	JBQ	9.72	0.110	1
10915	OCDF	39001-02-0	0.765	JBQ	19.4	0.236	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	0.0318				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	83	25 - 164
13C12-12378-PeCDD	86	25 - 181
13C12-123478-HxCDD	88	32 - 141
13C12-123678-HxCDD	93	28 - 130
13C12-123789-HxCDD	88	28 - 130
13C12-1234678-HpCDD	78	23 - 140
13C12-OCDD	62	17 - 157
13C12-2378-TCDF	83	24 - 169
13C12-12378-PeCDF	91	24 - 185
13C12-23478-PeCDF	89	21 - 178
13C12-123478-HxCDF	91	26 - 152
13C12-123678-HxCDF	95	26 - 123
13C12-234678-HxCDF	91	28 - 136
13C12-123789-HxCDF	85	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	69	26 - 138
13C12-OCDF	58	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: EB-060514 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7489903
LL Group # 1479956
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 15:00 by PH

Submitted: 06/06/2014 09:15
Reported: 06/24/2014 09:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB65- SDG#: PH220-01EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: EB-060514 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7489903
LL Group # 1479956
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 15:00 by PH

Submitted: 06/06/2014 09:15
Reported: 06/24/2014 09:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB65- SDG#: PH220-01EB

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14161WAH026	06/12/2014 06:44	Brian K Graham	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	14161WAH026	06/11/2014 09:30	David S Schrum	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14163A94A	06/13/2014 12:47	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14163A94A	06/13/2014 12:47	Marie D Beamenderfer	1
13092	21b PCBs and PCTs 8082A	SW-846 8082A	1	141610003A	06/11/2014 06:10	Monica M Souders	1
13093	PCB/PCT Waters Update IV	SW-846 3510C	1	141610003A	06/10/2014 16:00	Seth A Farrier	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141600042A	06/11/2014 15:34	Heather E Williams	1
13205	10b TPH-DRO (w/Si Gel)	SW-846 8015B modified	1	141600043A	06/13/2014 05:03	Heather E Williams	1
13212	EFH Water Ext. w/SiGel	SW-846 3510C	1	141600043A	06/10/2014 09:30	David S Schrum	1
11203	EFH Waters Extraction	SW-846 3510C	1	141600042A	06/10/2014 09:30	David S Schrum	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14162001	06/13/2014 05:46	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B October 1994	1	14162001	06/11/2014 10:30	Ginelle L McQuaid	1
01743	Aluminum	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1
07044	Antimony	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1
07035	Arsenic	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1
07046	Barium	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1
07047	Beryllium	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1
08014	Boron	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1
07049	Cadmium	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1
01750	Calcium	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1
07051	Chromium	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1
07052	Cobalt	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1
07053	Copper	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1
01754	Iron	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1
07055	Lead	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1
01756	Lithium	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1
01757	Magnesium	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1
07058	Manganese	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1
07060	Molybdenum	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1
07061	Nickel	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1
10143	Phosphorus	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1
01762	Potassium	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1
01767	Sodium	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1
07069	Tin	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1
07070	Titanium	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-060514 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7489903
LL Group # 1479956
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 15:00 by PH

Submitted: 06/06/2014 09:15
Reported: 06/24/2014 09:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB65- SDG#: PH220-01EB

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07071	Vanadium	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1
07072	Zinc	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1
10144	Zirconium	SW-846 6010C	1	141640635001	06/16/2014 22:49	John P Hook	1
06041	Selenium	SW-846 6020A	1	141640639001B	06/17/2014 04:31	Choon Y Tian	1
06042	Silver	SW-846 6020A	1	141640639001A	06/17/2014 04:31	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	141640639001A	06/17/2014 04:31	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	141640639001A	06/17/2014 04:31	Choon Y Tian	1
00259	3b Mercury 7470A	SW-846 7470A	1	141645713003	06/17/2014 07:40	Damary Valentin	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	141640635001	06/16/2014 09:40	Micaela L Dishong	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	141640639001	06/16/2014 09:05	Micaela L Dishong	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	141645713003	06/16/2014 11:46	Micaela L Dishong	1
12152	28b pH (9040B and 9040C)	SW-846 9040C	1	14157003106A	06/07/2014 05:56	Michele L Graham	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-631-SA8-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7489904
LL Group # 1479956
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 08:15 by RR

Submitted: 06/06/2014 09:15
Reported: 06/24/2014 09:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63100 SDG#: PH220-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	4.5	J	5.3	2.1	1
12952	EFH (C21-C30)	n.a.	25		5.3	2.1	1
12952	EFH (C30-C40)	n.a.	46		11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	2.3	J	5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	4.6	J	11	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	5.0		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA
CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141600037A	06/12/2014 22:35	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141600038A	06/13/2014 10:49	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141600038A	06/10/2014 16:55	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141600037A	06/10/2014 16:55	JoElla L Rice	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14164162401A	06/13/2014 18:32	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-631-SA8-SB-4.5-5.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7489905
LL Group # 1479956
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 08:50 by RR

Submitted: 06/06/2014 09:15
Reported: 06/24/2014 09:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63145 SDG#: PH220-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1	U	1	0.2	22.77
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	7.5		5.5	2.2	1
12952	EFH (C21-C30)	n.a.	36		5.5	2.2	1
12952	EFH (C30-C40)	n.a.	80		11	4.4	1
12952	EFH (C8-C11)	n.a.	5.5	U	5.5	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	3.0	J	5.5	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	7.4	J	11	4.4	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	8.6		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA
CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14164A16A	06/13/2014 20:56	Marie D Beamenderfer	22.77
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201415734734	06/06/2014 15:09	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201415734734	06/06/2014 15:10	Lisa J Cooke	n.a.
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141600037A	06/12/2014 23:39	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141600038A	06/13/2014 11:54	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141600038A	06/10/2014 16:55	JoElla L Rice	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-631-SA8-SB-4.5-5.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7489905
LL Group # 1479956
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 08:50 by RR

Submitted: 06/06/2014 09:15
Reported: 06/24/2014 09:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63145 SDG#: PH220-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12959	EFH soil ext.(microwave)	SW-846 3546	1	141600037A	06/10/2014 16:55	JoElla L Rice	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14164162401A	06/13/2014 18:32	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-631-SA8-SB-7.0-8.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7489906
LL Group # 1479956
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 09:40 by RR

Submitted: 06/06/2014 09:15
Reported: 06/24/2014 09:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63170 SDG#: PH220-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	2.0	U	2.0	0.80	1
12969	Acenaphthylene	208-96-8	2.0	U	2.0	0.40	1
12969	Anthracene	120-12-7	2.0	U	2.0	0.40	1
12969	Benzo(a)anthracene	56-55-3	2.0	U	2.0	0.80	1
12969	Benzo(a)pyrene	50-32-8	2.0	U	2.0	0.80	1
12969	Benzo(b)fluoranthene	205-99-2	2.0	U	2.0	0.80	1
12969	Benzo(e)pyrene	192-97-2	20	U	20	4.0	1
12969	Benzo(g,h,i)perylene	191-24-2	2.0	U	2.0	0.80	1
12969	Benzo(k)fluoranthene	207-08-9	2.0	U	2.0	0.80	1
12969	Butylbenzylphthalate	85-68-7	22	U	22	7.2	1
12969	Di-n-butylphthalate	84-74-2	22	U	22	7.2	1
12969	Chrysene	218-01-9	0.55	J	2.0	0.40	1
12969	Dibenz(a,h)anthracene	53-70-3	2.0	U	2.0	0.80	1
12969	Diethylphthalate	84-66-2	22	U	22	7.2	1
12969	Dimethylphthalate	131-11-3	22	U	22	7.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	45		22	7.2	1
12969	Fluoranthene	206-44-0	2.0	U	2.0	0.80	1
12969	Fluorene	86-73-7	2.0	U	2.0	0.80	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	2.0	U	2.0	0.80	1
12969	1-Methylnaphthalene	90-12-0	2.0	U	2.0	0.80	1
12969	2-Methylnaphthalene	91-57-6	2.0	U	2.0	0.80	1
12969	Naphthalene	91-20-3	2.0	U	2.0	0.80	1
12969	N-Nitrosodimethylamine	62-75-9	2.0	U	2.0	0.80	1
12969	Di-n-octylphthalate	117-84-0	22	U	22	7.2	1
12969	Phenanthrene	85-01-8	2.0	U	2.0	0.80	1
12969	Pyrene	129-00-0	2.0	U	2.0	0.80	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
N-Nitrosodimethylamine

GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	22.24
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	40	U	40	12	1
13099	Aroclor 5442	12642-23-8	40	U	40	12	1
13099	Aroclor 5460	11126-42-4	40	U	40	12	1
13099	PCB-1016	12674-11-2	20	U	20	4.0	1
13099	PCB-1221	11104-28-2	20	U	20	6.1	1
13099	PCB-1232	11141-16-5	20	U	20	4.9	1
13099	PCB-1242	53469-21-9	20	U	20	4.9	1
13099	PCB-1248	12672-29-6	20	U	20	4.0	1
13099	PCB-1254	11097-69-1	20	U	20	5.3	1
13099	PCB-1260	11096-82-5	20	U	20	4.7	1
13099	PCB-1262	37324-23-5	20	U	20	4.0	1
13099	PCB-1268	11100-14-4	20	U	20	4.0	1

For all QC parameters which are outside project defined limits,

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-631-SA8-SB-7.0-8.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7489906
LL Group # 1479956
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 09:40 by RR

Submitted: 06/06/2014 09:15
Reported: 06/24/2014 09:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63170 SDG#: PH220-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	but within the laboratory statistical limits, no corrective action is taken.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	6.0	U	6.0	2.4	1
12952	EFH (C15-C20)	n.a.	2.9	J	6.0	2.4	1
12952	EFH (C21-C30)	n.a.	8.9		6.0	2.4	1
12952	EFH (C30-C40)	n.a.	14		12	4.8	1
12952	EFH (C8-C11)	n.a.	6.0	U	6.0	2.4	1
13197	EFH C12-C14 w/ SiGel	n.a.	6.0	U	6.0	2.4	1
13197	EFH C15-C20 w/ SiGel	n.a.	6.0	U	6.0	2.4	1
13197	EFH C21-C30 w/ SiGel	n.a.	6.0	U	6.0	2.4	1
13197	EFH C30-C40 w/ SiGel	n.a.	12	U	12	4.8	1
13197	EFH C8-C11 w/ SiGel	n.a.	6.0	U	6.0	2.4	1
	The reverse surrogate, capric acid, is present at <1%.						
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	26,600		48.0	8.65	1
06944	Antimony	7440-36-0	4.80	U	4.80	0.887	1
06935	Arsenic	7440-38-2	4.09	J	4.80	0.839	1
06946	Barium	7440-39-3	148		1.20	0.0396	1
06947	Beryllium	7440-41-7	0.911	J	1.20	0.0803	1
07914	Boron	7440-42-8	11.1	J	12.0	1.01	1
06949	Cadmium	7440-43-9	0.380	J	1.20	0.0911	1
01650	Calcium	7440-70-2	34,900		24.0	4.00	1
06951	Chromium	7440-47-3	30.6		3.60	0.192	1
06952	Cobalt	7440-48-4	7.63		1.20	0.119	1
06953	Copper	7440-50-8	12.3		2.40	0.348	1
01654	Iron	7439-89-6	29,600		48.0	4.34	1
06955	Lead	7439-92-1	12.1		3.60	0.600	1
01656	Lithium	7439-93-2	26.3		4.8	0.41	1
01657	Magnesium	7439-95-4	5,770		12.0	2.00	1
06958	Manganese	7439-96-5	312		1.20	0.0995	1
06960	Molybdenum	7439-98-7	2.40	U	2.40	0.204	1
06961	Nickel	7440-02-0	15.6		2.40	0.156	1
10145	Phosphorus	7723-14-0	171		12.0	3.47	1
01662	Potassium	7440-09-7	3,000		120	10.0	1
01667	Sodium	7440-23-5	710		120	20.0	1
06969	Tin	7440-31-5	3.74	J	12.0	0.264	1
06970	Titanium	7440-32-6	1,110		1.20	0.204	1
06971	Vanadium	7440-62-2	54.2		1.20	0.156	1
06972	Zinc	7440-66-6	56.0		4.80	0.240	1
10146	Zirconium	7440-67-7	5.77	J	6.00	1.01	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.288	J	0.480	0.120	2
06142	Silver	7440-22-4	0.0633	J	0.240	0.0312	2
06144	Strontium	7440-24-6	71.6		0.480	0.0815	2
06145	Thallium	7440-28-0	0.315		0.240	0.0360	2

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-631-SA8-SB-7.0-8.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7489906
LL Group # 1479956
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 09:40 by RR

Submitted: 06/06/2014 09:15
Reported: 06/24/2014 09:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63170 SDG#: PH220-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 7471B**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0161 J	0.0188	0.0113	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 21.9 C.	n.a.	8.01	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	16.6	0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA
CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14163SLB026	06/18/2014 09:00	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14163SLB026	06/12/2014 17:00	JoElla L Rice	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14164A16A	06/13/2014 21:33	Marie D Beamenderfer	22.24
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201415734734	06/06/2014 15:07	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201415734734	06/06/2014 15:08	Lisa J Cooke	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141580012A	06/10/2014 10:06	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141580012A	06/09/2014 02:30	Sherry L Morrow	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141600037A	06/12/2014 20:03	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141600038A	06/13/2014 07:56	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141600038A	06/10/2014 16:55	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141600037A	06/10/2014 16:55	JoElla L Rice	1
01643	Aluminum	SW-846 6010C	1	141600637001	06/11/2014 09:19	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	141600637001	06/11/2014 09:19	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	141600637001	06/11/2014 09:19	Eric L Eby	1
06946	Barium	SW-846 6010C	1	141600637001	06/11/2014 09:19	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	141600637001	06/11/2014 09:19	Eric L Eby	1
07914	Boron	SW-846 6010C	1	141600637001	06/11/2014 09:19	Eric L Eby	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-631-SA8-SB-7.0-8.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7489906
LL Group # 1479956
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 09:40 by RR

Submitted: 06/06/2014 09:15
Reported: 06/24/2014 09:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63170 SDG#: PH220-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06949	Cadmium	SW-846 6010C	1	141600637001	06/11/2014 12:56	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	141600637001	06/11/2014 09:19	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	141600637001	06/11/2014 09:19	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	141600637001	06/11/2014 09:19	Eric L Eby	1
06953	Copper	SW-846 6010C	1	141600637001	06/11/2014 09:19	Eric L Eby	1
01654	Iron	SW-846 6010C	1	141600637001	06/11/2014 09:19	Eric L Eby	1
06955	Lead	SW-846 6010C	1	141600637001	06/11/2014 09:19	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	141600637001	06/11/2014 09:19	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	141600637001	06/11/2014 09:19	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	141600637001	06/11/2014 09:19	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	141600637001	06/11/2014 09:19	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	141600637001	06/11/2014 09:19	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	141600637001	06/11/2014 09:19	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	141600637001	06/11/2014 09:19	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	141600637001	06/11/2014 09:19	Eric L Eby	1
06969	Tin	SW-846 6010C	1	141600637001	06/11/2014 09:19	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	141600637001	06/11/2014 09:19	Eric L Eby	1
06971	Vanadium	SW-846 6010C	1	141600637001	06/11/2014 09:19	Eric L Eby	1
06972	Zinc	SW-846 6010C	1	141600637001	06/11/2014 09:19	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	141600637001	06/11/2014 09:19	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	141600637001B	06/11/2014 06:12	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141600637001A	06/11/2014 06:12	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141600637001A	06/11/2014 06:12	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141600637001A	06/11/2014 06:12	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141600638001	06/11/2014 09:20	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141600637001	06/10/2014 11:56	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141600638001	06/10/2014 13:25	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14157039401A	06/06/2014 21:30	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14164162401A	06/13/2014 18:32	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: TB1-060514 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7489907
LL Group # 1479956
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 08:00

Submitted: 06/06/2014 09:15
Reported: 06/24/2014 09:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB165 SDG#: PH220-05TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14163A94A	06/13/2014 13:12	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14163A94A	06/13/2014 13:12	Marie D Beamenderfer	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-624-SA8-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7489908
LL Group # 1479956
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 13:00 by RR

Submitted: 06/06/2014 09:15
Reported: 06/24/2014 09:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62400 SDG#: PH220-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	2.1	J	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	12		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	21		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.5		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA
CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141600037A	06/12/2014 20:25	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141600038A	06/13/2014 08:18	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141600038A	06/10/2014 16:55	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141600037A	06/10/2014 16:55	JoElla L Rice	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14164162401A	06/13/2014 18:32	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-625-SA8-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7489909
LL Group # 1479956
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/05/2014 13:55 by RR

Submitted: 06/06/2014 09:15
Reported: 06/24/2014 09:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62500 SDG#: PH220-07*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	5.1	J	5.1	2.1	1
12952	EFH (C21-C30)	n.a.	49		5.1	2.1	1
12952	EFH (C30-C40)	n.a.	86		10	4.1	1
12952	EFH (C8-C11)	n.a.	3.8	J	5.1	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	3.9	J	5.1	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	8.3	J	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.1	1

The reverse surrogate, capric acid, is present at <1%.
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.8		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA
CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141600037A	06/13/2014 00:23	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141600038A	06/13/2014 08:39	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141600038A	06/10/2014 16:55	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141600037A	06/10/2014 16:55	JoElla L Rice	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14164162401A	06/13/2014 18:32	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479956
Reported: 06/24/14 at 09:01 AM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14161WAH026	Sample number(s): 7489903									
Acenaphthene	0.050	U	0.050	0.010	ug/l	98	98	83-119	0	30
Acenaphthylene	0.050	U	0.050	0.010	ug/l	93	92	81-130	2	30
Anthracene	0.050	U	0.050	0.010	ug/l	98	97	83-125	1	30
Benzo(a)anthracene	0.050	U	0.050	0.010	ug/l	102	102	79-122	0	30
Benzo(a)pyrene	0.050	U	0.050	0.010	ug/l	99	98	80-121	1	30
Benzo(b)fluoranthene	0.050	U	0.050	0.010	ug/l	103	104	79-136	1	30
Benzo(e)pyrene	0.050	U	0.050	0.010	ug/l	98	98	67-118	0	30
Benzo(g,h,i)perylene	0.050	U	0.050	0.010	ug/l	100	99	72-132	1	30
Benzo(k)fluoranthene	0.050	U	0.050	0.010	ug/l	105	101	81-131	3	30
Butylbenzylphthalate	1.0	U	1.0	0.050	ug/l	85	85	40-138	1	30
Di-n-butylphthalate	1.0	U	1.0	0.050	ug/l	102	105	64-141	2	30
Chrysene	0.050	U	0.050	0.010	ug/l	104	99	84-118	6	30
Dibenz(a,h)anthracene	0.050	U	0.050	0.010	ug/l	100	95	66-133	5	30
Diethylphthalate	0.069	J	1.0	0.050	ug/l	97	95	64-137	2	30
Dimethylphthalate	1.0	U	1.0	0.050	ug/l	79	79	23-139	0	30
Bis(2-Ethylhexyl)phthalate	0.096	J	1.0	0.050	ug/l	93	639*	70-143	149*	30
Fluoranthene	0.050	U	0.050	0.010	ug/l	102	99	84-124	2	30
Fluorene	0.050	U	0.050	0.010	ug/l	96	96	82-119	0	30
Indeno(1,2,3-cd)pyrene	0.050	U	0.050	0.010	ug/l	99	96	68-132	3	30
1-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	87	86	86-130	1	30
2-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	84	82	81-131	2	30
Naphthalene	0.050	U	0.050	0.030	ug/l	86	85	82-122	2	30
N-Nitrosodimethylamine	0.050	U	0.050	0.010	ug/l	68	66	56-96	4	30
Di-n-octylphthalate	1.0	U	1.0	0.050	ug/l	85	78	57-145	9	30
Phenanthrene	0.050	U	0.050	0.030	ug/l	97	97	83-116	0	30
Pyrene	0.050	U	0.050	0.010	ug/l	98	96	78-125	2	30
Batch number: 14163SLB026	Sample number(s): 7489906									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	103		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	94		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	96		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	100		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	94		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	102		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	88		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	97		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	99		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	89		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	90		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	99		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	101		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	97		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	96		85-122		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479956
Reported: 06/24/14 at 09:01 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	89		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	99		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	103		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	97		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	95		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	97		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	94		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	68*		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	90		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	93		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	89		80-119		
Batch number: 14163A94A	Sample number(s): 7489903,7489907									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	98	101	80-133	3	30
Batch number: 14164A16A	Sample number(s): 7489905-7489906									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	77		67-120		
Batch number: 141580012A	Sample number(s): 7489906									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	88	95	36-106	7	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	112		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	112		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141610003A	Sample number(s): 7489903									
Aroclor 5432	0.40	U	0.40	0.080	ug/l					
Aroclor 5442	0.40	U	0.40	0.080	ug/l	80	61	34-115	28	30
Aroclor 5460	0.40	U	0.40	0.088	ug/l					
PCB-1016	0.40	U	0.40	0.080	ug/l	99	101	60-117	2	30
PCB-1221	0.40	U	0.40	0.080	ug/l					
PCB-1232	0.40	U	0.40	0.16	ug/l					
PCB-1242	0.40	U	0.40	0.080	ug/l					
PCB-1248	0.40	U	0.40	0.080	ug/l					
PCB-1254	0.40	U	0.40	0.080	ug/l					
PCB-1260	0.40	U	0.40	0.12	ug/l	102	103	67-128	0	30
PCB-1262	0.40	U	0.40	0.16	ug/l					
PCB-1268	0.40	U	0.40	0.13	ug/l					
Batch number: 141600037A	Sample number(s): 7489904-7489906,7489908-7489909									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	84		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	86		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	85		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	58		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	71		60-115		
Batch number: 141600038A	Sample number(s): 7489904-7489906,7489908-7489909									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	74*		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	77*		78-127		

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479956
Reported: 06/24/14 at 09:01 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	78		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	65		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	56*		60-115		
Batch number: 141600042A	Sample number(s): 7489903									
EFH (C12-C14)	0.10	U	0.10	0.050	mg/l	59*	50*	67-109	16	30
EFH (C15-C20)	0.10	U	0.10	0.050	mg/l	92	88	71-119	4	30
EFH (C21-C30)	0.10	U	0.10	0.050	mg/l	91	88	75-117	3	30
EFH (C30 - C40)	0.50	U	0.50	0.10	mg/l	78	61	44-134	24	30
EFH (C8-C11)	0.10	U	0.10	0.050	mg/l	21*	15*	55-86	32*	30
Batch number: 141600043A	Sample number(s): 7489903									
EFH C12-C14 w/ SiGel	0.10	U	0.10	0.050	mg/l	52*	44*	67-109	16	30
EFH C15-C20 w/ SiGel	0.10	U	0.10	0.050	mg/l	82	78	71-119	5	30
EFH C21-C30 w/ SiGel	0.10	U	0.10	0.050	mg/l	85	81	75-117	5	30
EFH C30-C40 w/ SiGel	0.50	U	0.50	0.10	mg/l	83	69	44-134	17	30
EFH C8-C11 w/ SiGel	0.10	U	0.10	0.050	mg/l	16*	12*	55-86	34*	30
Batch number: 141600637001	Sample number(s): 7489906									
Aluminum	40.0	U	40.0	7.21	mg/kg	104		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	104		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	99		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	99		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	102		80-120		
Boron	10.0	U	10.0	0.840	mg/kg	98		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	100		80-120		
Calcium	9.52	J	20.0	3.34	mg/kg	104		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	100		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	103		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	101		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	104		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	102		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	102		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	101		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	102		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	102		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	106		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	102		80-120		
Potassium	100 U		100.	8.34	mg/kg	102		80-120		
Sodium	100 U		100.	16.7	mg/kg	101		80-120		
Tin	1.47	J	10.0	0.220	mg/kg	102		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	101		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	100		80-120		
Zinc	0.541	J	4.00	0.200	mg/kg	101		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	102		80-120		
Batch number: 141600637001A	Sample number(s): 7489906									
Silver	0.200	U	0.200	0.0260	mg/kg	106		80-120		
Strontium	0.400	U	0.400	0.0680	mg/kg	106		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	111		80-120		
Batch number: 141600637001B	Sample number(s): 7489906									
Selenium	0.400	U	0.400	0.100	mg/kg	103		80-120		

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479956
Reported: 06/24/14 at 09:01 AM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 141600638001	Sample number(s): 7489906								
3a Mercury 7471A	0.0167 U	0.0167	0.0100	mg/kg	93		85-120		
Batch number: 141640635001	Sample number(s): 7489903								
Aluminum	0.400 U	0.400	0.0828	mg/l	109	106	90-112	3	20
Antimony	0.0400 U	0.0400	0.0053	mg/l	100	98	88-111	1	20
Arsenic	0.0400 U	0.0400	0.0068	mg/l	110	108	90-113	1	20
Barium	0.0100 U	0.0100	0.00033	mg/l	108	107	90-110	1	20
Beryllium	0.0100 U	0.0100	0.00067	mg/l	108	106	90-111	2	20
Boron	0.100 U	0.100	0.0084	mg/l	100	99	90-110	2	20
Cadmium	0.0100 U	0.0100	0.00076	mg/l	110	108	90-112	2	20
Calcium	0.400 U	0.400	0.0334	mg/l	109	106	90-112	2	20
Chromium	0.0300 U	0.0300	0.0016	mg/l	106	103	90-110	3	20
Cobalt	0.0100 U	0.0100	0.0013	mg/l	111	109	90-114	2	20
Copper	0.0200 U	0.0200	0.0027	mg/l	107	104	90-112	2	20
Iron	0.400 U	0.400	0.0430	mg/l	109	107	90-112	2	20
Lead	0.0300 U	0.0300	0.0047	mg/l	110	108	88-116	2	20
Lithium	0.0400 U	0.0400	0.0047	mg/l	108	105	90-110	3	20
Magnesium	0.200 U	0.200	0.0167	mg/l	108	106	89-110	2	20
Manganese	0.0014 J	0.0100	0.00083	mg/l	105	107	90-110	2	20
Molybdenum	0.0200 U	0.0200	0.0017	mg/l	108	106	90-110	2	20
Nickel	0.0016 J	0.0200	0.0015	mg/l	113	111	90-117	2	20
Phosphorus	0.200 U	0.200	0.0418	mg/l	107	104	90-110	3	20
Potassium	1.00 U	1.00	0.0980	mg/l	105	102	90-110	3	20
Sodium	2.00 U	2.00	0.167	mg/l	105	102	87-114	3	20
Tin	0.0400 U	0.0400	0.0029	mg/l	106	103	90-110	2	20
Titanium	0.0200 U	0.0200	0.0017	mg/l	108	106	90-113	2	20
Vanadium	0.0100 U	0.0100	0.0020	mg/l	110	108	90-110	2	20
Zinc	0.0047 J	0.0400	0.0020	mg/l	107	106	90-110	2	20
Zirconium	0.0094 J	0.100	0.0084	mg/l	107	104	90-110	3	20
Batch number: 141640639001A	Sample number(s): 7489903								
Silver	0.0010 U	0.0010	0.00011	mg/l	103	103	90-115	1	20
Strontium	0.0020 U	0.0020	0.00034	mg/l	103	102	90-110	1	20
Thallium	0.0010 U	0.0010	0.00015	mg/l	105	101	90-115	3	20
Batch number: 141640639001B	Sample number(s): 7489903								
Selenium	0.0040 U	0.0040	0.00050	mg/l	101	101	90-114	0	20
Batch number: 141645713003	Sample number(s): 7489903								
3b Mercury 7470A	0.00020 U	0.00020	0.00006 0	mg/l	98	94	90-115	4	20
Batch number: 14157003106A	Sample number(s): 7489903								
28b pH (9040B and 9040C)					100		90-110		
Batch number: 14157039401A	Sample number(s): 7489906								
15a pH by 9045D					100		95-105		
Batch number: 14164162401A	Sample number(s): 7489904-7489906,7489908-7489909								
14a Moisture Content by 160.3					100		80-120		

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479956
Reported: 06/24/14 at 09:01 AM

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14162001	Sample number(s): 7489903									
2378-TCDD	2.00	U	2.00	0.252	pg/l	101		60-150		
12378-PeCDD	0.241	J	10.0	0.194	pg/l	97		60-150		
123478-HxCDD	0.280	J	10.0	0.164	pg/l	96		60-150		
123678-HxCDD	10.0	U	10.0	0.171	pg/l	94		60-150		
123789-HxCDD	0.251	J	10.0	0.161	pg/l	98		60-150		
1234678-HpCDD	0.811	J	10.0	0.181	pg/l	97		60-150		
OCDD	1.29	J	20.0	0.220	pg/l	94		60-150		
2378-TCDF	2.00	U	2.00	0.174	pg/l	93		60-150		
12378-PeCDF	0.172	J	10.0	0.107	pg/l	96		60-150		
23478-PeCDF	0.109	J	10.0	0.0990	pg/l	98		60-150		
123478-HxCDF	0.176	J	10.0	0.105	pg/l	100		60-150		
123678-HxCDF	0.258	J	10.0	0.0950	pg/l	99		60-150		
123789-HxCDF	0.465	J	10.0	0.109	pg/l	97		60-150		
234678-HxCDF	0.399	J	10.0	0.0930	pg/l	98		60-150		
1234678-HpCDF	0.621	J	10.0	0.0768	pg/l	99		60-150		
1234789-HpCDF	0.299	J	10.0	0.111	pg/l	97		60-150		
OCDF	1.27	J	20.0	0.252	pg/l	96		60-150		
TEQ WHO 2005 - EDLx0.0	0.250				pg/l					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14163SLB026	Sample number(s): 7489906 UNSPK: P492863								
Acenaphthene	88	80	48-127	10	30				
Acenaphthylene	82	75	60-128	10	30				
Anthracene	83	75	52-126	11	30				
Benzo(a)anthracene	86	79	44-143	8	30				
Benzo(a)pyrene	82	74	49-137	10	30				
Benzo(b)fluoranthene	105	95	26-142	10	30				
Benzo(e)pyrene	84	77	63-111	9	30				
Benzo(g,h,i)perylene	42	38	33-141	11	30				
Benzo(k)fluoranthene	102	97	49-144	4	30				
Butylbenzylphthalate	101	81	64-156	18	30				
Di-n-butylphthalate	87	81	52-147	7	30				
Chrysene	88	80	43-141	9	30				
Dibenz(a,h)anthracene	51	46	25-145	9	30				
Diethylphthalate	87	79	66-140	9	30				
Dimethylphthalate	86	78	70-123	10	30				
Bis(2-Ethylhexyl)phthalate	51	64	48-164	11	30				
Fluoranthene	89	82	38-153	8	30				
Fluorene	89	82	57-130	9	30				
Indeno(1,2,3-cd)pyrene	49	44	26-139	10	30				
1-Methylnaphthalene	85	77	59-139	9	30				
2-Methylnaphthalene	87	79	46-147	10	30				

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479956
Reported: 06/24/14 at 09:01 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Naphthalene	86	78	52-136	9	30				
N-Nitrosodimethylamine	61	55	39-134	10	30				
Di-n-octylphthalate	115	109	52-162	6	30				
Phenanthrene	85	77	50-137	10	30				
Pyrene	75	69	26-143	8	30				
Batch number: 14164A16A	Sample number(s): 7489905-7489906 UNSPK: P494363								
11a TPH by EPA 8015B GRO	80	80	69-123	6	30				
Batch number: 141580012A	Sample number(s): 7489906 UNSPK: P488115								
PCB-1016	116	114	41-135	1	50				
PCB-1260	120	120	40-134	0	50				
Batch number: 141600037A	Sample number(s): 7489904-7489906,7489908-7489909 UNSPK: 7489904								
EFH (C12-C14)	94	90	49-123	4	20				
EFH (C15-C20)	91	92	49-123	1	20				
EFH (C21-C30)	100	101	49-123	0	20				
EFH (C30-C40)	134*	156*	49-123	5	20				
EFH (C8-C11)	94	101	49-123	7	20				
Batch number: 141600038A	Sample number(s): 7489904-7489906,7489908-7489909 UNSPK: 7489904								
EFH C12-C14 w/ SiGel	71	76	49-123	6	20				
EFH C15-C20 w/ SiGel	75	79	49-123	5	20				
EFH C21-C30 w/ SiGel	77	83	49-123	6	20				
EFH C30-C40 w/ SiGel	77	87	49-123	10	20				
EFH C8-C11 w/ SiGel	54	58	49-123	8	20				
Batch number: 141600637001	Sample number(s): 7489906 UNSPK: P488115 BKG: P488115								
Aluminum	2266 (2)	2288 (2)	75-125	1	20	17,900	18,700	5	20
Antimony	34*	35*	75-125	5	20	3.85 U	3.92 U	0 (1)	20
Arsenic	103	100	75-125	0	20	2.25 J	2.75 J	20 (1)	20
Barium	103	105	75-125	3	20	102	107	5	20
Beryllium	103	103	75-125	3	20	0.698 J	0.751 J	7 (1)	20
Boron	99	99	75-125	3	20	7.62 J	7.18 J	6 (1)	20
Cadmium	94	93	75-125	2	20	0.283 J	0.244 J	15 (1)	20
Calcium	111 (2)	103 (2)	75-125	0	20	3,180	3,190	0	20
Chromium	109	106	75-125	0	20	20.5	21.5	5	20
Cobalt	93	92	75-125	2	20	5.97	6.34	6	20
Copper	106	106	75-125	2	20	9.57	9.78	2 (1)	20
Iron	1070 (2)	177 (2)	75-125	4	20	21,800	23,200	6	20
Lead	90	88	75-125	0	20	9.34	10.0	7 (1)	20
Lithium	102	102	75-125	3	20	19.4	20.1	4	20
Magnesium	184 (2)	131 (2)	75-125	2	20	4,130	4,210	2	20
Manganese	104 (2)	96 (2)	75-125	1	20	317	346	9	20
Molybdenum	93	92	75-125	3	20	0.438 J	0.276 J	45* (1)	20
Nickel	96	95	75-125	1	20	11.7	11.9	2	20
Phosphorus	89	76	75-125	3	20	229	230	0	20
Potassium	125	121	75-125	0	20	2,790	2,770	1	20
Sodium	99	100	75-125	3	20	78.9 J	79.0 J	0 (1)	20
Tin	87	86	75-125	2	20	3.21 J	3.28 J	2 (1)	20

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479956
Reported: 06/24/14 at 09:01 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Titanium	337 (2)	359 (2)	75-125	2	20	991	1,020	3	20
Vanadium	110	110	75-125	2	20	38.8	41.4	6	20
Zinc	94	91	75-125	0	20	49.1	48.3	2	20
Zirconium	97	97	75-125	3	20	3.68 J	4.36 J	17 (1)	20
Batch number: 141600637001A	Sample number(s): 7489906 UNSPK: P488115 BKG: P488115								
Silver	107	105	75-125	1	20	0.0373 J	0.0429 J	14 (1)	20
Strontium	92	86	75-125	1	20	21.7	24.5	12	20
Thallium	110	104	75-125	1	20	0.288	0.341	17 (1)	20
Batch number: 141600637001B	Sample number(s): 7489906 UNSPK: P488115 BKG: P488115								
Selenium	101	96	75-125	2	20	0.288 J	0.324 J	12 (1)	20
Batch number: 141600638001	Sample number(s): 7489906 UNSPK: P488115 BKG: P488115								
3a Mercury 7471A	102	103	65-135	3	20	0.0155 U	0.0164 U	0 (1)	20
Batch number: 14157003106A	Sample number(s): 7489903 BKG: P489671								
28b pH (9040B and 9040C)						7.9	7.9	0	3
Batch number: 14157039401A	Sample number(s): 7489906 BKG: 7489906								
15a pH by 9045D						8.01	7.99	0	3
Batch number: 14164162401A	Sample number(s): 7489904-7489906,7489908-7489909 BKG: P492844								
14a Moisture Content by 160.3						3.6	3.6	0	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7b SVOC SIM EPA 8270D
Batch number: 14161WAH026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7489903	100	106	89
Blank	105	110	90
LCS	103	111	87
LCSD	102	110	87
Limits:	59-128	62-141	70-134

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14163SLB026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7489906	90	93	81

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479956
Reported: 06/24/14 at 09:01 AM

Surrogate Quality Control

Blank	94	101	87
LCS	100	106	92
MS	90	97	85
MSD	82	91	77
Limits:	59-115	61-118	70-127

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14163A94A

	Trifluorotoluene-F
7489903	93
7489907	83
Blank	85
LCS	92
LCSD	94
Limits:	63-135

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 14164A16A

	Trifluorotoluene-F
7489905	91
7489906	82
Blank	101
LCS	94
MS	81
MSD	75
Limits:	50-142

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141580012A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7489906	119	111
Blank	123*	116
LCS	118	112
LCSD	124*	116
MS	121*	115
MSD	120	115
Limits:	45-120	45-120

Analysis Name: 21b PCBs and PCTs 8082A
Batch number: 141610003A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7489903	99	86
Blank	91	86
LCS	99	90
LCSD	100	87
Limits:	45-120	45-120

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479956
Reported: 06/24/14 at 09:01 AM

Surrogate Quality Control

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141600037A

	Chlorobenzene	Orthoterphenyl
7489904	95	93
7489905	87	92
7489906	89	87
7489908	75	93
7489909	72	79
Blank	70	84
LCS	82	84
MS	84	90
MSD	82	86
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141600038A

	Chlorobenzene	Orthoterphenyl
7489904	64	71
7489905	71	77
7489906	68	74
7489908	67	74
7489909	57	66
Blank	65	83
LCS	67	76
MS	66	74
MSD	74	86
Limits:	37-125	66-123

Analysis Name: 10b TPH by EPA 8015B (DRO)
Batch number: 141600042A

	Chlorobenzene	Orthoterphenyl
7489903	78	78
Blank	75	78
LCS	81	84
LCSD	76	80
Limits:	45-126	69-119

Analysis Name: 10b TPH-DRO (w/Si Gel)
Batch number: 141600043A

	Chlorobenzene	Orthoterphenyl
7489903	66	74
Blank	67	81
LCS	68	77
LCSD	62	73
Limits:	45-126	69-119

Analysis Name: 17b Dioxin/Furan by EPA 1613B
Batch number: 14162001

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1479956
Reported: 06/24/14 at 09:01 AM

Surrogate Quality Control

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7489903	83	86	88	93	88	78
Blank	83	93	95	97	95	84
OPR	76	91	89	90	88	80
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7489903	62	83	91	89	91	95
Blank	70	85	97	95	96	101
OPR	67	76	90	91	86	89
Limits:	17-157	24-169	24-185	21-178	26-152	26-123

	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF
7489903	91	85	86	69	58
Blank	98	99	95	75	63
OPR	87	86	85	72	60
Limits:	28-136	29-147	28-143	26-138	17-157

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/5/2014
CarrierName: FedEx
AirbillNo: 770212567524

A-13013
G-1479956
S-7489903-09

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140605-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate Confirm 6850/6860	Perchlorate 314.0/331	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
EB-060514	6/5/14 15:00	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	X		X																																	
EB-060514	6/5/14 15:00	WQ	None	2 - 250 mL Amber	10 day							X			X																											
EB-060514	6/5/14 15:00	WQ	None	1 - 250 mL Poly	10 day														X																						
EB-060514	6/5/14 15:00	WQ	HCl	3 - 40 mL Vial	10 day																			X																
EB-060514	6/5/14 15:00	WQ	HCl	2 - 1 L Amber	10 day																				X															
EB-060514	6/5/14 15:00	WQ	None	2 - 1 L Amber	10 day									X																										

Special Instructions: For all EFH, silica gel cleanup required on half the extract. Analyze both extracts for EFH.

Sampler: Pa Hart

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Shey Myers	06/05/14	1600									
									Bun/Hm	6.6.14	915

Final Data Gap Block 2 1 of 2

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/5/2014
CarrierName: FedEx
AirbillNo: 770212567524

A-13013
G-1479956
S-7489903-09

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140605-02
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc. Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
FDG2-SL-631-SA8-SB-0.0-0.5	6/5/14 08:15	SO	None	1 - SS-Sleeve	10 day																				X																	
FDG2-SL-631-SA8-SB-4.5-5.0	6/5/14 08:50	SO	None	1 - SS-Sleeve	10 day																				X																	
FDG2-SL-631-SA8-SB-4.5-5.0	6/5/14 08:50	SO	None	2 - Encore	10 day																			X																	
FDG2-SL-631-SA8-SB-7.0-8.0	6/5/14 09:40	SO	None	2 - SS-Sleeve	10 day	X	X					X			X										X																	
FDG2-SL-631-SA8-SB-7.0-8.0	6/5/14 09:40	SO	None	2 - Encore	10 day																				X																	
FDG2-SL-631-SA8-SB-7.0-8.0	6/5/14 09:40	SO	None	1 - 4 oz glass	10 day													X																							
TB1-060514	6/5/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																				X																	
FDG2-SL-624-SA8-SB-0.0-0.5	6/5/14 13:00	SO	None	1 - SS-Sleeve	10 day																					X																	
FDG2-SL-625-SA8-SB-0.0-0.5	6/5/14 13:55	SO	None	1 - SS-Sleeve	10 day																					X																	

Special Instructions: For all EFH, silica gel cleanup required on half the extract. Analyze both extracts for EFH.

Sampler: R Roberts

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Stacy Mupel	06/05/14	1600									
									Brian Mu	6/6/14	915

Final Data Gap Block 2 2of2

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Sample Administration Receipt Documentation Log

Doc Log ID: 16617

Group Number(s): 1479956

Client: CDM

SSFL

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	06/06/2014 9:15
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Brandy Barclay (2299) at 10:35 on 06/06/2014

Samples Chilled Details: SSFL

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT146	1.4	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

July 07, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 06/07/2014
Group Number: 1480241
SDG: PH221
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB1-060614 Water	7491482
FDG2-SL-626-SA8-SB-0.0-0.5 Soil	7491483
FDG2-SL-626-SA8-SB-4.0-5.0 Soil	7491484
FDG2-SL-691-SA6-SB-0.0-0.5 Soil	7491485
FDG2-SL-692-SA6-SB-0.0-0.5 Soil	7491486
FDG2-SL-693-SA6-SB-0.0-0.5 Soil	7491487

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: TB1-060614 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7491482
LL Group # 1480241
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/06/2014 08:00

Submitted: 06/07/2014 09:15
Reported: 07/07/2014 12:14

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P2101 SDG#: PH221-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		ug/l		ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14167A94A	06/17/2014 11:34	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14167A94A	06/17/2014 11:34	Laura M Krieger	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-626-SA8-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7491483
LL Group # 1480241
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/06/2014 07:45 by RR

Submitted: 06/07/2014 09:15
Reported: 07/07/2014 12:14

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P2102 SDG#: PH221-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	2.3	J	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	8.5		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	15		10	4.0	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.0	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.0	1

The reverse surrogate, capric acid, is present at <1%.
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.1		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141600037A	06/12/2014 20:47	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141600038A	06/13/2014 09:01	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141600038A	06/10/2014 16:55	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141600037A	06/10/2014 16:55	JoElla L Rice	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14164162401A	06/13/2014 18:32	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-626-SA8-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7491484
LL Group # 1480241
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/06/2014 08:20 by RR

Submitted: 06/07/2014 09:15
Reported: 07/07/2014 12:14

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P2103 SDG#: PH221-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	25
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	6.8		5.3	2.1	1
12952	EFH (C15-C20)	n.a.	16		5.3	2.1	1
12952	EFH (C21-C30)	n.a.	69		5.3	2.1	1
12952	EFH (C30-C40)	n.a.	35		11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	3.3	J	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	J	5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
	Due to the presence of fuel in the sample extract, capric acid recovery can not be determined. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	5.2		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14164A16A	06/13/2014 22:11	Marie D Beamenderfer	25
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201415834745	06/07/2014 11:58	Stephanie A Sanchez	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201415834745	06/07/2014 11:58	Stephanie A Sanchez	n.a.
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141600037A	06/13/2014 01:27	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141600038A	06/13/2014 09:23	Heather E Williams	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-626-SA8-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7491484
LL Group # 1480241
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/06/2014 08:20 by RR

Submitted: 06/07/2014 09:15
Reported: 07/07/2014 12:14

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P2103 SDG#: PH221-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141600038A	06/10/2014 16:55	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141600037A	06/10/2014 16:55	JoElla L Rice	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14164162401A	06/13/2014 18:32	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-691-SA6-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7491485
LL Group # 1480241
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/06/2014 09:35 by RR

Submitted: 06/07/2014 09:15
Reported: 07/07/2014 12:14

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P2104 SDG#: PH221-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.0	U	5.0	2.0	1
12952	EFH (C15-C20)	n.a.	2.2	J	5.0	2.0	1
12952	EFH (C21-C30)	n.a.	13		5.0	2.0	1
12952	EFH (C30-C40)	n.a.	19		10	4.0	1
12952	EFH (C8-C11)	n.a.	5.0	U	5.0	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.0	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	0.93		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141600037A	06/12/2014 22:13	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141600038A	06/13/2014 09:45	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141600038A	06/10/2014 16:55	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141600037A	06/10/2014 16:55	JoElla L Rice	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14164162401A	06/13/2014 18:32	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-692-SA6-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7491486
LL Group # 1480241
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/06/2014 11:40 by RR

Submitted: 06/07/2014 09:15
Reported: 07/07/2014 12:14

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P2105 SDG#: PH221-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	10		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	23		10	4.0	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.0	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.0	1

The reverse surrogate, capric acid, is present at <1%.
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.1		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141600037A	06/12/2014 21:08	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141600038A	06/13/2014 10:06	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141600038A	06/10/2014 16:55	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141600037A	06/10/2014 16:55	JoElla L Rice	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14164162401A	06/13/2014 18:32	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-693-SA6-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7491487
LL Group # 1480241
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/06/2014 10:30 by RR

Submitted: 06/07/2014 09:15
Reported: 07/07/2014 12:14

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P2106 SDG#: PH221-06*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.0	U	5.0	2.0	1
12952	EFH (C15-C20)	n.a.	5.0	U	5.0	2.0	1
12952	EFH (C21-C30)	n.a.	12		5.0	2.0	1
12952	EFH (C30-C40)	n.a.	24		10	4.0	1
12952	EFH (C8-C11)	n.a.	5.0	U	5.0	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	3.4	J	5.0	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.0	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	0.85		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141600037A	06/12/2014 21:30	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141600038A	06/13/2014 10:28	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141600038A	06/10/2014 16:55	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141600037A	06/10/2014 16:55	JoElla L Rice	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14164162401A	06/13/2014 18:32	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480241
Reported: 07/07/14 at 12:14 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14164A16A	Sample number(s): 7491484								
11a TPH by EPA 8015B GRO	1.0 U	1.0	0.2	mg/kg	77		67-120		
Batch number: 14167A94A	Sample number(s): 7491482								
TPH-GRO S.CA water C5-C12	50 U	50.	20	ug/l	98	103	80-133	5	30
Batch number: 141600037A	Sample number(s): 7491483-7491487								
EFH (C12-C14)	5.0 U	5.0	2.0	mg/kg	84		76-115		
EFH (C15-C20)	5.0 U	5.0	2.0	mg/kg	86		78-127		
EFH (C21-C30)	5.0 U	5.0	2.0	mg/kg	85		77-127		
EFH (C30-C40)	10 U	10.	4.0	mg/kg	58		44-134		
EFH (C8-C11)	5.0 U	5.0	2.0	mg/kg	71		60-115		
Batch number: 141600038A	Sample number(s): 7491483-7491487								
EFH C12-C14 w/ SiGel	5.0 U	5.0	2.0	mg/kg	74*		76-115		
EFH C15-C20 w/ SiGel	5.0 U	5.0	2.0	mg/kg	77*		78-127		
EFH C21-C30 w/ SiGel	5.0 U	5.0	2.0	mg/kg	78		77-127		
EFH C30-C40 w/ SiGel	10 U	10.	4.0	mg/kg	65		44-134		
EFH C8-C11 w/ SiGel	5.0 U	5.0	2.0	mg/kg	56*		60-115		
Batch number: 14164162401A	Sample number(s): 7491483-7491487								
14a Moisture Content by 160.3					100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14164A16A	Sample number(s): 7491484 UNSPK: P494363								
11a TPH by EPA 8015B GRO	80	80	69-123	6	30				
Batch number: 141600037A	Sample number(s): 7491483-7491487 UNSPK: P489904								
EFH (C12-C14)	94	90	49-123	4	20				
EFH (C15-C20)	91	92	49-123	1	20				
EFH (C21-C30)	100	101	49-123	0	20				
EFH (C30-C40)	134*	156*	49-123	5	20				
EFH (C8-C11)	94	101	49-123	7	20				
Batch number: 141600038A	Sample number(s): 7491483-7491487 UNSPK: P489904								

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480241
Reported: 07/07/14 at 12:14 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
EFH C12-C14 w/ SiGel	71	76	49-123	6	20				
EFH C15-C20 w/ SiGel	75	79	49-123	5	20				
EFH C21-C30 w/ SiGel	77	83	49-123	6	20				
EFH C30-C40 w/ SiGel	77	87	49-123	10	20				
EFH C8-C11 w/ SiGel	54	58	49-123	8	20				
Batch number: 14164162401A	Sample number(s): 7491483-7491487					BKG: P492844			
14a Moisture Content by 160.3						3.6	3.6	0	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 14164A16A

	Trifluorotoluene-F
7491484	87
Blank	101
LCS	94
MS	81
MSD	75
Limits:	50-142

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14167A94A

	Trifluorotoluene-F
7491482	82
Blank	85
LCS	93
LCSD	91
Limits:	63-135

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141600037A

	Chlorobenzene	Orthoterphenyl
7491483	95	97
7491484	91	95
7491485	85	85
7491486	87	108
7491487	79	85
Blank	70	84
LCS	82	84
MS	84	90

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480241
Reported: 07/07/14 at 12:14 PM

Surrogate Quality Control

MSD	82	86
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141600038A

	Chlorobenzene	Orthoterphenyl
7491483	80	85
7491484	53	73
7491485	66	70
7491486	70	78
7491487	56	70
Blank	65	83
LCS	67	76
MS	66	74
MSD	74	86
Limits:	37-125	66-123

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

acct# 13013 Gap# 1480241 Sample# 7491482-87

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/6/2014
CarrierName: FedEx
AirbillNo: 770224383242

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140606-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc. Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488--09a	Other
TB1-060614	6/6/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																			X																	
FDG2-SL-626-SA8-SB-0.0-0.5	6/6/14 07:45	SO	None	1 - SS-Sleeve	10 day																				X																
FDG2-SL-626-SA8-SB-4.0-5.0	6/6/14 08:20	SO	None	1 - SS-Sleeve	10 day																				X																
FDG2-SL-626-SA8-SB-4.0-5.0	6/6/14 08:20	SO	None	2 - Encore	10 day																			X																
FDG2-SL-691-SA6-SB-0.0-0.5	6/6/14 09:35	SO	None	1 - SS-Sleeve	10 day																				X																
FDG2-SL-692-SA6-SB-0.0-0.5	6/6/14 11:40	SO	None	1 - SS-Sleeve	10 day																				X																
FDG2-SL-693-SA6-SB-0.0-0.5	6/6/14 10:30	SO	None	1 - SS-Sleeve	10 day																				X																

Special Instructions: For all EFH, silica gel cleanup required on half the extract. Analyze both extracts for EFH.

Sampler: Rudy Robertson

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Greg Mysell	6/6/14	1500									
										6/7/14	0715

Final Data Gap Block 2 1 of 1

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 16774

Group Number(s): 1480241

Client: CDM Smith

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	06/07/2014 9:15
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	N/A		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Joseph Gruber (5200) at 11:24 on 06/07/2014

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT131	2.0	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

July 07, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 06/07/2014
Group Number: 1480242
SDG: PH222
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB2-060614 Water	7491488
SVL-627-SA5A-SB-3.0-3.5 Soil	7491489

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: TB2-060614 Water
SSFL Phase 3 Subarea 5A

LL Sample # WW 7491488
LL Group # 1480242
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/06/2014 08:00

Submitted: 06/07/2014 09:15
Reported: 07/07/2014 12:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P22TB SDG#: PH222-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	1	U	1	0.5	1
10335	Benzene	71-43-2	1	U	1	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	1	U	1	0.5	1
10335	Bromoform	75-25-2	4	U	4	0.5	1
10335	Bromomethane	74-83-9	1	U	1	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	1	U	1	0.5	1
10335	Chlorobenzene	108-90-7	1	U	1	0.5	1
10335	Chloroethane	75-00-3	1	U	1	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	1	U	1	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	1	U	1	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	1	U	1	0.5	1
10335	1,2-Dibromoethane	106-93-4	1	U	1	0.5	1
10335	Dibromomethane	74-95-3	1	U	1	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	1	U	1	0.5	1
10335	1,1-Dichloroethane	75-34-3	1	U	1	0.5	1
10335	1,2-Dichloroethane	107-06-2	1	U	1	0.5	1
10335	1,1-Dichloroethene	75-35-4	1	U	1	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	1	U	1	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	1	U	1	0.5	1
10335	1,2-Dichloropropane	78-87-5	1	U	1	0.5	1
10335	1,3-Dichloropropane	142-28-9	1	U	1	0.5	1
10335	2,2-Dichloropropane	594-20-7	1	U	1	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	1	U	1	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	1	U	1	0.5	1
10335	Ethyl t-butyl ether	637-92-3	1	U	1	0.5	1
10335	Ethylbenzene	100-41-4	1	U	1	0.5	1
10335	Freon 113	76-13-1	10	U	10	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: TB2-060614 Water
SSFL Phase 3 Subarea 5A

LL Sample # WW 7491488
LL Group # 1480242
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/06/2014 08:00

Submitted: 06/07/2014 09:15
Reported: 07/07/2014 12:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P22TB SDG#: PH222-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	1	U	1	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	1	U	1	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	1	U	1	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	3	U	3	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	1	U	1	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	1	U	1	0.5	1
10335	Tetrachloroethene	127-18-4	1	U	1	0.5	1
10335	Toluene	108-88-3	1	U	1	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	1	U	1	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	1	U	1	0.5	1
10335	Trichloroethene	79-01-6	1	U	1	0.5	1
10335	Trichlorofluoromethane	75-69-4	1	U	1	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	1	U	1	0.5	1
10335	m+p-Xylene	179601-23-1	1	U	1	0.5	1
10335	o-Xylene	95-47-6	1	U	1	0.5	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141621AA	06/11/2014 11:03	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141621AA	06/11/2014 11:03	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-627-SA5A-SB-3.0-3.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7491489
LL Group # 1480242
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/06/2014 09:13 by VV

Submitted: 06/07/2014 09:15
Reported: 07/07/2014 12:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P2201 SDG#: PH222-02*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	16	J	22	8	1.04
10237	Acrolein	107-02-8	110	U	110	22	1.04
10237	Acrylonitrile	107-13-1	22	U	22	4	1.04
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	1.04
10237	Benzene	71-43-2	5	U	5	0.5	1.04
10237	Bromobenzene	108-86-1	5	U	5	1	1.04
10237	Bromochloromethane	74-97-5	5	U	5	1	1.04
10237	Bromodichloromethane	75-27-4	5	U	5	1	1.04
10237	Bromoform	75-25-2	5	U	5	1	1.04
10237	Bromomethane	74-83-9	5	U	5	2	1.04
10237	2-Butanone	78-93-3	11	U	11	4	1.04
10237	t-Butyl alcohol	75-65-0	54	U	54	22	1.04
10237	n-Butylbenzene	104-51-8	5	U	5	1	1.04
10237	sec-Butylbenzene	135-98-8	5	U	5	1	1.04
10237	tert-Butylbenzene	98-06-6	5	U	5	1	1.04
10237	Carbon Disulfide	75-15-0	5	U	5	1	1.04
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	1.04
10237	Chlorobenzene	108-90-7	5	U	5	1	1.04
10237	Chloroethane	75-00-3	5	U	5	2	1.04
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	1.04
10237	Chloroform	67-66-3	5	U	5	1	1.04
10237	1-Chlorohexane	544-10-5	5	U	5	1	1.04
10237	Chloromethane	74-87-3	5	U	5	2	1.04
10237	2-Chlorotoluene	95-49-8	5	U	5	1	1.04
10237	4-Chlorotoluene	106-43-4	5	U	5	1	1.04
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	1.04
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1.04
10237	Dibromochloromethane	124-48-1	5	U	5	1	1.04
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	1.04
10237	Dibromomethane	74-95-3	5	U	5	1	1.04
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1.04
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1.04
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1.04
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	1.04
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	1.04
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	1.04
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	1.04
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	1.04
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	1.04
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	1.04
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	1.04
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	1.04
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	1.04
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	1.04
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	1.04
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	1.04
10237	Ethylbenzene	100-41-4	5	U	5	1	1.04
10237	Freon 113	76-13-1	5	U	5	2	1.04
10237	Freon 133a	75-88-7	5	U	5	2	1.04
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	1.04
10237	2-Hexanone	591-78-6	11	U	11	3	1.04

*=This limit was used in the evaluation of the final result

Sample Description: SVL-627-SA5A-SB-3.0-3.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7491489
LL Group # 1480242
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/06/2014 09:13 by VV

Submitted: 06/07/2014 09:15
Reported: 07/07/2014 12:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P2201 SDG#: PH222-02*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	1.04
10237	Isopropylbenzene	98-82-8	5	U	5	1	1.04
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	1.04
10237	Methyl Iodide	74-88-4	5	U	5	3	1.04
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1.04
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	1.04
10237	Methylene Chloride	75-09-2	5	U	5	2	1.04
10237	n-Propylbenzene	103-65-1	5	U	5	1	1.04
10237	Styrene	100-42-5	5	U	5	1	1.04
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	1.04
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	1.04
10237	Tetrachloroethene	127-18-4	5	U	5	1	1.04
10237	Toluene	108-88-3	5	U	5	1	1.04
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1.04
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1.04
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	1.04
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	1.04
10237	Trichloroethene	79-01-6	5	U	5	1	1.04
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	1.04
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1.04
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1.04
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1.04
10237	Vinyl Acetate	108-05-4	11	U	11	2	1.04
10237	Vinyl Chloride	75-01-4	5	U	5	1	1.04
10237	m+p-Xylene	179601-23-1	5	U	5	1	1.04
10237	o-Xylene	95-47-6	5	U	5	1	1.04
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	4.7		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141642AA	06/14/2014 05:39	Stephanie A Selis	1.04
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201415834745	06/07/2014 12:05	Stephanie A Sanchez	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-627-SA5A-SB-3.0-3.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7491489
LL Group # 1480242
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/06/2014 09:13 by VV

Submitted: 06/07/2014 09:15
Reported: 07/07/2014 12:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

P2201 SDG#: PH222-02*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201415834745	06/07/2014 12:05	Stephanie A Sanchez	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201415834745	06/07/2014 11:59	Stephanie A Sanchez	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14162162401B	06/11/2014 20:09	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480242
Reported: 07/07/14 at 12:15 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B141642AA	Sample number(s): 7491489									
Acetone	20	U	20.	7	ug/kg	114	103	41-149	10	30
Acrolein	100 U		100.	20	ug/kg	84	78	50-137	8	30
Acrylonitrile	20	U	20.	4	ug/kg	90	98	58-123	9	30
t-Amyl methyl ether	5	U	5.	1	ug/kg	94	99	63-130	5	30
Benzene	5	U	5.	0.5	ug/kg	102	103	80-120	1	30
Bromobenzene	5	U	5.	1	ug/kg	107	101	78-120	6	30
Bromochloromethane	5	U	5.	1	ug/kg	107	108	75-129	1	30
Bromodichloromethane	5	U	5.	1	ug/kg	100	102	75-120	2	30
Bromoform	5	U	5.	1	ug/kg	103	108	70-126	5	30
Bromomethane	5	U	5.	2	ug/kg	111	105	32-162	5	30
2-Butanone	10	U	10.	4	ug/kg	84	89	47-136	6	30
t-Butyl alcohol	50	U	50.	20	ug/kg	105	106	66-133	1	30
n-Butylbenzene	5	U	5.	1	ug/kg	102	95	72-120	8	30
sec-Butylbenzene	5	U	5.	1	ug/kg	99	92	69-120	7	30
tert-Butylbenzene	5	U	5.	1	ug/kg	105	95	75-120	9	30
Carbon Disulfide	5	U	5.	1	ug/kg	104	99	63-128	4	30
Carbon Tetrachloride	5	U	5.	1	ug/kg	109	109	69-130	0	30
Chlorobenzene	5	U	5.	1	ug/kg	106	106	80-120	0	30
Chloroethane	5	U	5.	2	ug/kg	101	99	17-171	2	30
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/kg	73	80	52-134	8	30
Chloroform	5	U	5.	1	ug/kg	108	108	80-120	0	30
1-Chlorohexane	5	U	5.	1	ug/kg	73	72	70-130	2	30
Chloromethane	5	U	5.	2	ug/kg	98	101	56-120	3	30
2-Chlorotoluene	5	U	5.	1	ug/kg	103	99	78-120	4	30
4-Chlorotoluene	5	U	5.	1	ug/kg	107	102	79-120	5	30
Chlorotrifluoroethene	5	U	5.	2	ug/kg	70	68	22-131	3	30
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/kg	94	94	50-132	0	30
Dibromochloromethane	5	U	5.	1	ug/kg	105	108	77-120	2	30
1,2-Dibromoethane	5	U	5.	1	ug/kg	102	107	80-120	5	30
Dibromomethane	5	U	5.	1	ug/kg	98	103	75-120	5	30
1,2-Dichlorobenzene	5	U	5.	1	ug/kg	109	101	80-120	8	30
1,3-Dichlorobenzene	5	U	5.	1	ug/kg	109	103	80-120	6	30
1,4-Dichlorobenzene	5	U	5.	1	ug/kg	107	101	80-120	6	30
Dichlorodifluoromethane	5	U	5.	2	ug/kg	105	100	26-137	4	30
1,1-Dichloroethane	5	U	5.	1	ug/kg	99	100	71-122	1	30
1,2-Dichloroethane	5	U	5.	1	ug/kg	108	108	66-136	0	30
1,1-Dichloroethene	5	U	5.	1	ug/kg	116	117	73-129	1	30
cis-1,2-Dichloroethene	5	U	5.	1	ug/kg	105	105	80-120	1	30
trans-1,2-Dichloroethene	5	U	5.	1	ug/kg	117	117	79-120	0	30
1,2-Dichloropropane	5	U	5.	1	ug/kg	96	97	77-120	1	30
1,3-Dichloropropane	5	U	5.	1	ug/kg	95	100	73-120	4	30
2,2-Dichloropropane	5	U	5.	1	ug/kg	104	105	72-123	1	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480242
Reported: 07/07/14 at 12:15 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/kg	106	107	77-120	0	30
cis-1,3-Dichloropropene	5	U	5.	1	ug/kg	96	99	74-120	3	30
trans-1,3-Dichloropropene	5	U	5.	1	ug/kg	96	100	69-120	4	30
Ethyl t-butyl ether	5	U	5.	1	ug/kg	93	98	59-134	5	30
Ethylbenzene	5	U	5.	1	ug/kg	105	104	80-120	1	30
Freon 113	5	U	5.	2	ug/kg	106	102	64-137	3	30
Freon 133a	5	U	5.	2	ug/kg	111	106	78-120	5	30
Hexachlorobutadiene	5	U	5.	2	ug/kg	110	104	46-130	6	30
2-Hexanone	10	U	10.	3	ug/kg	83	90	40-129	8	30
di-Isopropyl ether	5	U	5.	1	ug/kg	94	97	68-128	2	30
Isopropylbenzene	5	U	5.	1	ug/kg	106	105	76-120	1	30
p-Isopropyltoluene	5	U	5.	1	ug/kg	103	95	69-120	8	30
Methyl Iodide	5	U	5.	3	ug/kg	121	117	72-130	3	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/kg	103	106	69-126	3	30
4-Methyl-2-pentanone	10	U	10.	3	ug/kg	84	93	43-133	10	30
Methylene Chloride	5	U	5.	2	ug/kg	119	116	80-124	2	30
n-Propylbenzene	5	U	5.	1	ug/kg	103	97	77-120	7	30
Styrene	5	U	5.	1	ug/kg	106	107	76-120	2	30
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/kg	110	109	80-120	1	30
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/kg	95	90	71-123	5	30
Tetrachloroethene	5	U	5.	1	ug/kg	107	109	78-120	1	30
Toluene	5	U	5.	1	ug/kg	102	103	80-120	1	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/kg	104	102	64-120	2	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/kg	107	102	68-120	4	30
1,1,1-Trichloroethane	5	U	5.	1	ug/kg	98	98	63-135	0	30
1,1,2-Trichloroethane	5	U	5.	1	ug/kg	103	104	80-120	1	30
Trichloroethene	5	U	5.	1	ug/kg	106	107	80-120	1	30
Trichlorofluoromethane	5	U	5.	2	ug/kg	107	105	58-133	2	30
1,2,3-Trichloropropane	5	U	5.	1	ug/kg	104	98	71-123	5	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/kg	107	98	79-120	9	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/kg	106	99	78-120	7	30
Vinyl Acetate	10	U	10.	2	ug/kg	103	102	40-127	1	30
Vinyl Chloride	5	U	5.	1	ug/kg	106	103	59-120	3	30
m+p-Xylene	5	U	5.	1	ug/kg	105	106	80-120	1	30
o-Xylene	5	U	5.	1	ug/kg	104	105	80-120	1	30
Batch number: Y141621AA	Sample number(s): 7491488									
Acetone	20	U	20.	6	ug/l	93	93	43-149	1	30
Acrolein	100 U		100.	40	ug/l	73	74	52-129	0	30
Acrylonitrile	20	U	20.	4	ug/l	93	93	62-120	1	30
t-Amyl methyl ether	1	U	1.	0.5	ug/l	94	95	75-120	2	30
Benzene	1	U	1.	0.5	ug/l	95	98	78-120	2	30
Bromobenzene	5	U	5.	1	ug/l	99	99	80-120	1	30
Bromochloromethane	5	U	5.	1	ug/l	99	100	80-121	1	30
Bromodichloromethane	1	U	1.	0.5	ug/l	94	96	73-120	2	30
Bromoform	4	U	4.	0.5	ug/l	87	87	61-120	1	30
Bromomethane	1	U	1.	0.5	ug/l	101	103	58-120	1	30
2-Butanone	10	U	10.	3	ug/l	89	89	54-133	0	30
t-Butyl alcohol	50	U	50.	5	ug/l	98	97	75-120	0	30
n-Butylbenzene	5	U	5.	1	ug/l	89	91	68-120	3	30
sec-Butylbenzene	5	U	5.	1	ug/l	93	95	80-120	2	30
tert-Butylbenzene	5	U	5.	1	ug/l	95	96	73-120	1	30
Carbon Disulfide	5	U	5.	1	ug/l	90	91	58-126	0	30
Carbon Tetrachloride	1	U	1.	0.5	ug/l	103	104	74-130	1	30
Chlorobenzene	1	U	1.	0.5	ug/l	96	98	80-120	2	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480242
Reported: 07/07/14 at 12:15 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroethane	1	U	1.	0.5	ug/l	93	97	56-120	5	30
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/l	105	108	54-126	3	30
Chloroform	1	U	1.	0.5	ug/l	100	100	80-122	0	30
1-Chlorohexane	5	U	5.	1	ug/l	81	84	80-120	3	30
Chloromethane	1	U	1.	0.5	ug/l	101	106	63-120	5	30
2-Chlorotoluene	5	U	5.	1	ug/l	93	95	80-120	2	30
4-Chlorotoluene	5	U	5.	1	ug/l	94	95	80-120	1	30
Chlorotrifluoroethene	5	U	5.	2	ug/l	55	54	47-120	1	30
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/l	86	86	56-120	0	30
Dibromochloromethane	1	U	1.	0.5	ug/l	96	97	72-120	1	30
1,2-Dibromoethane	1	U	1.	0.5	ug/l	100	100	76-120	1	30
Dibromomethane	1	U	1.	0.5	ug/l	94	95	80-120	1	30
1,2-Dichlorobenzene	5	U	5.	1	ug/l	95	96	80-120	1	30
1,3-Dichlorobenzene	5	U	5.	1	ug/l	96	97	80-120	1	30
1,4-Dichlorobenzene	5	U	5.	1	ug/l	97	98	80-120	2	30
Dichlorodifluoromethane	1	U	1.	0.5	ug/l	103	103	48-132	1	30
1,1-Dichloroethane	1	U	1.	0.5	ug/l	92	98	80-120	6	30
1,2-Dichloroethane	1	U	1.	0.5	ug/l	100	103	65-135	3	30
1,1-Dichloroethene	1	U	1.	0.5	ug/l	109	111	76-124	2	30
cis-1,2-Dichloroethene	1	U	1.	0.5	ug/l	97	98	80-120	1	30
trans-1,2-Dichloroethene	1	U	1.	0.5	ug/l	113	115	80-120	2	30
1,2-Dichloropropane	1	U	1.	0.5	ug/l	91	94	80-120	3	30
1,3-Dichloropropane	1	U	1.	0.5	ug/l	93	93	80-120	1	30
2,2-Dichloropropane	1	U	1.	0.5	ug/l	98	97	67-124	1	30
1,1-Dichloropropene	5	U	5.	1	ug/l	101	103	80-120	3	30
cis-1,3-Dichloropropene	1	U	1.	0.5	ug/l	90	92	80-120	2	30
trans-1,3-Dichloropropene	1	U	1.	0.5	ug/l	91	92	76-120	0	30
Ethyl t-butyl ether	1	U	1.	0.5	ug/l	94	97	74-120	2	30
Ethylbenzene	1	U	1.	0.5	ug/l	95	96	79-120	1	30
Freon 113	10	U	10.	2	ug/l	98	98	67-127	1	30
Freon 133a	5	U	5.	2	ug/l	98	100	46-152	2	30
Hexachlorobutadiene	5	U	5.	2	ug/l	87	91	51-125	4	30
2-Hexanone	10	U	10.	3	ug/l	88	88	44-126	0	30
di-Isopropyl ether	1	U	1.	0.5	ug/l	94	95	65-120	1	30
Isopropylbenzene	5	U	5.	1	ug/l	96	97	77-120	1	30
p-Isopropyltoluene	5	U	5.	1	ug/l	93	93	80-120	1	30
Methyl Iodide	1	U	1.	0.5	ug/l	107	109	75-128	2	30
Methyl Tertiary Butyl Ether	1	U	1.	0.5	ug/l	108	108	75-120	1	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	90	91	51-124	1	30
Methylene Chloride	3	U	3.	2	ug/l	107	109	80-120	2	30
n-Propylbenzene	5	U	5.	1	ug/l	94	96	80-120	2	30
Styrene	5	U	5.	1	ug/l	96	97	80-120	1	30
1,1,1,2-Tetrachloroethane	1	U	1.	0.5	ug/l	98	99	80-120	1	30
1,1,2,2-Tetrachloroethane	1	U	1.	0.5	ug/l	89	89	70-120	1	30
Tetrachloroethene	1	U	1.	0.5	ug/l	103	107	80-120	4	30
Toluene	1	U	1.	0.5	ug/l	96	96	80-120	0	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	90	94	58-126	3	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	94	96	65-120	2	30
1,1,1-Trichloroethane	1	U	1.	0.5	ug/l	89	90	66-126	1	30
1,1,2-Trichloroethane	1	U	1.	0.5	ug/l	94	95	80-120	1	30
Trichloroethene	1	U	1.	0.5	ug/l	100	102	80-120	3	30
Trichlorofluoromethane	1	U	1.	0.5	ug/l	100	100	65-130	1	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	94	94	76-120	0	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	96	97	74-120	2	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	96	97	74-120	1	30
Vinyl Acetate	10	U	10.	2	ug/l	77	76	56-135	1	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480242
Reported: 07/07/14 at 12:15 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vinyl Chloride	1	U	1.	0.5	ug/l	99	103	63-120	3	30
m+p-Xylene	1	U	1.	0.5	ug/l	94	97	80-120	3	30
o-Xylene	1	U	1.	0.5	ug/l	94	96	80-120	2	30
Batch number: 14162162401B	Sample number(s): 7491489									
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14162162401B	Sample number(s): 7491489			BKG: P489863					
14a Moisture Content by 160.3						4.5	4.4	1	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12a Volatile Organics EPA8260B
Batch number: B141642AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7491489	106	108	97	92
Blank	107	108	98	93
LCS	105	103	100	104
LCSD	104	103	100	99
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141621AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7491488	99	98	96	95
Blank	100	98	96	95
LCS	100	96	97	97
LCSD	101	98	97	98
Limits:	86-118	80-120	88-110	86-115

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

acct#13013 Gp#1480242 sample# 7491488-89

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/6/2014
CarrierName: FedEx
AirbillNo: 770224383242

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140606-02
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc. Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
TB2-060614	6/6/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																		X																		
SVL-627-SASA-SB-3.0-3.5	6/6/14 09:13	SO	None	3 - Encore	10 day																		X																		
SVL-627-SASA-SB-3.0-3.5	6/6/14 09:13	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
										6/7/14	0915

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Sample Administration Receipt Documentation Log

Doc Log ID: 16774

Group Number(s): 1480342

Client: CDM Smith

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	06/07/2014 9:15
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	N/A		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Joseph Gruber (5200) at 11:24 on 06/07/2014

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT131	2.0	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

July 07, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 06/10/2014
Group Number: 1480550
SDG: PH223
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SVL-611-SA5A-SB-1.35-1.85 Soil	7492844
TB-060914 Water	7492845
SVL-527-SA6-SB-2.0-3.0 Soil	7492846
SVL-574-SA6-SB-3.8-4.3 Soil	7492847
SVL-630-SA5A-SB-1.5-2.0 Soil	7492848

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: SVL-611-SA5A-SB-1.35-1.85 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7492844
LL Group # 1480550
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 10:39 by AP

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61113 SDG#: PH223-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	19	U	19	7	0.94
10237	Acrolein	107-02-8	97	U	97	19	0.94
10237	Acrylonitrile	107-13-1	19	U	19	4	0.94
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.94
10237	Benzene	71-43-2	5	U	5	0.5	0.94
10237	Bromobenzene	108-86-1	5	U	5	1	0.94
10237	Bromochloromethane	74-97-5	5	U	5	1	0.94
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.94
10237	Bromoform	75-25-2	5	U	5	1	0.94
10237	Bromomethane	74-83-9	5	U	5	2	0.94
10237	2-Butanone	78-93-3	10	U	10	4	0.94
10237	t-Butyl alcohol	75-65-0	49	U	49	19	0.94
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.94
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.94
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.94
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.94
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.94
10237	Chlorobenzene	108-90-7	5	U	5	1	0.94
10237	Chloroethane	75-00-3	5	U	5	2	0.94
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.94
10237	Chloroform	67-66-3	5	U	5	1	0.94
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.94
10237	Chloromethane	74-87-3	5	U	5	2	0.94
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.94
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.94
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.94
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.94
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.94
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.94
10237	Dibromomethane	74-95-3	5	U	5	1	0.94
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.94
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.94
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.94
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.94
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.94
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.94
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.94
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.94
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.94
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.94
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.94
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.94
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.94
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.94
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.94
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.94
10237	Ethylbenzene	100-41-4	5	U	5	1	0.94
10237	Freon 113	76-13-1	5	U	5	2	0.94
10237	Freon 133a	75-88-7	5	U	5	2	0.94
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.94
10237	2-Hexanone	591-78-6	10	U	10	3	0.94

*=This limit was used in the evaluation of the final result

Sample Description: SVL-611-SA5A-SB-1.35-1.85 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7492844
LL Group # 1480550
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 10:39 by AP

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61113 SDG#: PH223-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.94
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.94
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.94
10237	Methyl Iodide	74-88-4	5	U	5	3	0.94
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.94
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.94
10237	Methylene Chloride	75-09-2	5	U	5	2	0.94
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.94
10237	Styrene	100-42-5	5	U	5	1	0.94
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.94
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.94
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.94
10237	Toluene	108-88-3	5	U	5	1	0.94
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.94
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.94
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.94
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.94
10237	Trichloroethene	79-01-6	5	U	5	1	0.94
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.94
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.94
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.94
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.94
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.94
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.94
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.94
10237	o-Xylene	95-47-6	5	U	5	1	0.94
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	3.6		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141612AA	06/11/2014 01:58	Chelsea B Stong	0.94
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201416134761	06/10/2014 12:25	Larry E Bevins	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-611-SA5A-SB-1.35-1.85 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7492844
LL Group # 1480550
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 10:39 by AP

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61113 SDG#: PH223-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201416134761	06/10/2014 12:24	Larry E Bevins	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201416134761	06/10/2014 12:19	Larry E Bevins	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14164162401A	06/13/2014 18:32	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: TB-060914 Water
SSFL Phase 3 Subarea 5A

LL Sample # WW 7492845
LL Group # 1480550
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:00

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB609 SDG#: PH223-02TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	1	U	1	0.5	1
10335	Benzene	71-43-2	1	U	1	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	1	U	1	0.5	1
10335	Bromoform	75-25-2	4	U	4	0.5	1
10335	Bromomethane	74-83-9	1	U	1	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	1	U	1	0.5	1
10335	Chlorobenzene	108-90-7	1	U	1	0.5	1
10335	Chloroethane	75-00-3	1	U	1	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	1	U	1	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	1	U	1	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	1	U	1	0.5	1
10335	1,2-Dibromoethane	106-93-4	1	U	1	0.5	1
10335	Dibromomethane	74-95-3	1	U	1	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	1	U	1	0.5	1
10335	1,1-Dichloroethane	75-34-3	1	U	1	0.5	1
10335	1,2-Dichloroethane	107-06-2	1	U	1	0.5	1
10335	1,1-Dichloroethene	75-35-4	1	U	1	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	1	U	1	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	1	U	1	0.5	1
10335	1,2-Dichloropropane	78-87-5	1	U	1	0.5	1
10335	1,3-Dichloropropane	142-28-9	1	U	1	0.5	1
10335	2,2-Dichloropropane	594-20-7	1	U	1	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	1	U	1	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	1	U	1	0.5	1
10335	Ethyl t-butyl ether	637-92-3	1	U	1	0.5	1
10335	Ethylbenzene	100-41-4	1	U	1	0.5	1
10335	Freon 113	76-13-1	10	U	10	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: TB-060914 Water
SSFL Phase 3 Subarea 5A

LL Sample # WW 7492845
LL Group # 1480550
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:00

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB609 SDG#: PH223-02TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	1	U	1	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	1	U	1	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	1	U	1	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	3	U	3	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	1	U	1	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	1	U	1	0.5	1
10335	Tetrachloroethene	127-18-4	1	U	1	0.5	1
10335	Toluene	108-88-3	1	U	1	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	1	U	1	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	1	U	1	0.5	1
10335	Trichloroethene	79-01-6	1	U	1	0.5	1
10335	Trichlorofluoromethane	75-69-4	1	U	1	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	1	U	1	0.5	1
10335	m+p-Xylene	179601-23-1	1	U	1	0.5	1
10335	o-Xylene	95-47-6	1	U	1	0.5	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141621AA	06/11/2014 11:25	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141621AA	06/11/2014 11:25	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-527-SA6-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7492846
LL Group # 1480550
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 13:25 by AP

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52720 SDG#: PH223-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	22	U	22	8	0.99
10237	Acrolein	107-02-8	110	U	110	22	0.99
10237	Acrylonitrile	107-13-1	22	U	22	4	0.99
10237	t-Amyl methyl ether	994-05-8	6	U	6	1	0.99
10237	Benzene	71-43-2	6	U	6	0.6	0.99
10237	Bromobenzene	108-86-1	6	U	6	1	0.99
10237	Bromochloromethane	74-97-5	6	U	6	1	0.99
10237	Bromodichloromethane	75-27-4	6	U	6	1	0.99
10237	Bromoform	75-25-2	6	U	6	1	0.99
10237	Bromomethane	74-83-9	6	U	6	2	0.99
10237	2-Butanone	78-93-3	11	U	11	4	0.99
10237	t-Butyl alcohol	75-65-0	56	U	56	22	0.99
10237	n-Butylbenzene	104-51-8	6	U	6	1	0.99
10237	sec-Butylbenzene	135-98-8	6	U	6	1	0.99
10237	tert-Butylbenzene	98-06-6	6	U	6	1	0.99
10237	Carbon Disulfide	75-15-0	6	U	6	1	0.99
10237	Carbon Tetrachloride	56-23-5	6	U	6	1	0.99
10237	Chlorobenzene	108-90-7	6	U	6	1	0.99
10237	Chloroethane	75-00-3	6	U	6	2	0.99
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	0.99
10237	Chloroform	67-66-3	6	U	6	1	0.99
10237	1-Chlorohexane	544-10-5	6	U	6	1	0.99
10237	Chloromethane	74-87-3	6	U	6	2	0.99
10237	2-Chlorotoluene	95-49-8	6	U	6	1	0.99
10237	4-Chlorotoluene	106-43-4	6	U	6	1	0.99
10237	Chlorotrifluoroethene	79-38-9	6	U	6	2	0.99
10237	1,2-Dibromo-3-chloropropane	96-12-8	6	U	6	2	0.99
10237	Dibromochloromethane	124-48-1	6	U	6	1	0.99
10237	1,2-Dibromoethane	106-93-4	6	U	6	1	0.99
10237	Dibromomethane	74-95-3	6	U	6	1	0.99
10237	1,2-Dichlorobenzene	95-50-1	6	U	6	1	0.99
10237	1,3-Dichlorobenzene	541-73-1	6	U	6	1	0.99
10237	1,4-Dichlorobenzene	106-46-7	6	U	6	1	0.99
10237	Dichlorodifluoromethane	75-71-8	6	U	6	2	0.99
10237	1,1-Dichloroethane	75-34-3	6	U	6	1	0.99
10237	1,2-Dichloroethane	107-06-2	6	U	6	1	0.99
10237	1,1-Dichloroethene	75-35-4	6	U	6	1	0.99
10237	cis-1,2-Dichloroethene	156-59-2	6	U	6	1	0.99
10237	trans-1,2-Dichloroethene	156-60-5	6	U	6	1	0.99
10237	1,2-Dichloropropane	78-87-5	6	U	6	1	0.99
10237	1,3-Dichloropropane	142-28-9	6	U	6	1	0.99
10237	2,2-Dichloropropane	594-20-7	6	U	6	1	0.99
10237	1,1-Dichloropropene	563-58-6	6	U	6	1	0.99
10237	cis-1,3-Dichloropropene	10061-01-5	6	U	6	1	0.99
10237	trans-1,3-Dichloropropene	10061-02-6	6	U	6	1	0.99
10237	Ethyl t-butyl ether	637-92-3	6	U	6	1	0.99
10237	Ethylbenzene	100-41-4	6	U	6	1	0.99
10237	Freon 113	76-13-1	6	U	6	2	0.99
10237	Freon 133a	75-88-7	6	U	6	2	0.99
10237	Hexachlorobutadiene	87-68-3	6	U	6	2	0.99
10237	2-Hexanone	591-78-6	11	U	11	3	0.99

*=This limit was used in the evaluation of the final result

Sample Description: SVL-527-SA6-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7492846
LL Group # 1480550
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 13:25 by AP

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52720 SDG#: PH223-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	6	U	6	1	0.99
10237	Isopropylbenzene	98-82-8	6	U	6	1	0.99
10237	p-Isopropyltoluene	99-87-6	6	U	6	1	0.99
10237	Methyl Iodide	74-88-4	6	U	6	3	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	6	U	6	0.6	0.99
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	0.99
10237	Methylene Chloride	75-09-2	6	U	6	2	0.99
10237	n-Propylbenzene	103-65-1	6	U	6	1	0.99
10237	Styrene	100-42-5	6	U	6	1	0.99
10237	1,1,1,2-Tetrachloroethane	630-20-6	6	U	6	1	0.99
10237	1,1,2,2-Tetrachloroethane	79-34-5	6	U	6	1	0.99
10237	Tetrachloroethene	127-18-4	6	U	6	1	0.99
10237	Toluene	108-88-3	6	U	6	1	0.99
10237	1,2,3-Trichlorobenzene	87-61-6	6	U	6	1	0.99
10237	1,2,4-Trichlorobenzene	120-82-1	6	U	6	1	0.99
10237	1,1,1-Trichloroethane	71-55-6	6	U	6	1	0.99
10237	1,1,2-Trichloroethane	79-00-5	6	U	6	1	0.99
10237	Trichloroethene	79-01-6	6	U	6	1	0.99
10237	Trichlorofluoromethane	75-69-4	6	U	6	2	0.99
10237	1,2,3-Trichloropropane	96-18-4	6	U	6	1	0.99
10237	1,2,4-Trimethylbenzene	95-63-6	6	U	6	1	0.99
10237	1,3,5-Trimethylbenzene	108-67-8	6	U	6	1	0.99
10237	Vinyl Acetate	108-05-4	11	U	11	2	0.99
10237	Vinyl Chloride	75-01-4	6	U	6	1	0.99
10237	m+p-Xylene	179601-23-1	6	U	6	1	0.99
10237	o-Xylene	95-47-6	6	U	6	1	0.99
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	11.0		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141612AA	06/11/2014 02:20	Chelsea B Stong	0.99
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201416134761	06/10/2014 12:24	Larry E Bevins	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-527-SA6-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7492846
LL Group # 1480550
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 13:25 by AP

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52720 SDG#: PH223-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201416134761	06/10/2014 12:24	Larry E Bevins	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201416134761	06/10/2014 12:21	Larry E Bevins	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14164162401A	06/13/2014 18:32	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-574-SA6-SB-3.8-4.3 Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7492847
LL Group # 1480550
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 14:48 by AP

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57438 SDG#: PH223-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	11	J	20	7	0.96
10237	Acrolein	107-02-8	100	U	100	20	0.96
10237	Acrylonitrile	107-13-1	20	U	20	4	0.96
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.96
10237	Benzene	71-43-2	5	U	5	0.5	0.96
10237	Bromobenzene	108-86-1	5	U	5	1	0.96
10237	Bromochloromethane	74-97-5	5	U	5	1	0.96
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.96
10237	Bromoform	75-25-2	5	U	5	1	0.96
10237	Bromomethane	74-83-9	5	U	5	2	0.96
10237	2-Butanone	78-93-3	10	U	10	4	0.96
10237	t-Butyl alcohol	75-65-0	50	U	50	20	0.96
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.96
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.96
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.96
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.96
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.96
10237	Chlorobenzene	108-90-7	5	U	5	1	0.96
10237	Chloroethane	75-00-3	5	U	5	2	0.96
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.96
10237	Chloroform	67-66-3	5	U	5	1	0.96
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.96
10237	Chloromethane	74-87-3	5	U	5	2	0.96
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.96
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.96
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.96
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.96
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.96
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.96
10237	Dibromomethane	74-95-3	5	U	5	1	0.96
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.96
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.96
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.96
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.96
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.96
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.96
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.96
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.96
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.96
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.96
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.96
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.96
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.96
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.96
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.96
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.96
10237	Ethylbenzene	100-41-4	5	U	5	1	0.96
10237	Freon 113	76-13-1	5	U	5	2	0.96
10237	Freon 133a	75-88-7	5	U	5	2	0.96
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.96
10237	2-Hexanone	591-78-6	10	U	10	3	0.96

*=This limit was used in the evaluation of the final result

Sample Description: SVL-574-SA6-SB-3.8-4.3 Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7492847
LL Group # 1480550
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 14:48 by AP

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57438 SDG#: PH223-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.96
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.96
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.96
10237	Methyl Iodide	74-88-4	5	U	5	3	0.96
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.96
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.96
10237	Methylene Chloride	75-09-2	5	U	5	2	0.96
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.96
10237	Styrene	100-42-5	5	U	5	1	0.96
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.96
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.96
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.96
10237	Toluene	108-88-3	5	U	5	1	0.96
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.96
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.96
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.96
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.96
10237	Trichloroethene	79-01-6	5	U	5	1	0.96
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.96
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.96
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.96
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.96
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.96
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.96
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.96
10237	o-Xylene	95-47-6	5	U	5	1	0.96
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	4.1		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141612AA	06/11/2014 02:42	Chelsea B Stong	0.96
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201416134761	06/10/2014 12:24	Larry E Bevins	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-574-SA6-SB-3.8-4.3 Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7492847
LL Group # 1480550
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 14:48 by AP

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57438 SDG#: PH223-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201416134761	06/10/2014 12:24	Larry E Bevins	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201416134761	06/10/2014 12:17	Larry E Bevins	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14164162401A	06/13/2014 18:32	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-630-SA5A-SB-1.5-2.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7492848
LL Group # 1480550
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 13:54 by AP

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63015 SDG#: PH223-05*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	21	U	21	7	1.01
10237	Acrolein	107-02-8	110	U	110	21	1.01
10237	Acrylonitrile	107-13-1	21	U	21	4	1.01
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	1.01
10237	Benzene	71-43-2	5	U	5	0.5	1.01
10237	Bromobenzene	108-86-1	5	U	5	1	1.01
10237	Bromochloromethane	74-97-5	5	U	5	1	1.01
10237	Bromodichloromethane	75-27-4	5	U	5	1	1.01
10237	Bromoform	75-25-2	5	U	5	1	1.01
10237	Bromomethane	74-83-9	5	U	5	2	1.01
10237	2-Butanone	78-93-3	11	U	11	4	1.01
10237	t-Butyl alcohol	75-65-0	53	U	53	21	1.01
10237	n-Butylbenzene	104-51-8	5	U	5	1	1.01
10237	sec-Butylbenzene	135-98-8	5	U	5	1	1.01
10237	tert-Butylbenzene	98-06-6	5	U	5	1	1.01
10237	Carbon Disulfide	75-15-0	5	U	5	1	1.01
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	1.01
10237	Chlorobenzene	108-90-7	5	U	5	1	1.01
10237	Chloroethane	75-00-3	5	U	5	2	1.01
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	1.01
10237	Chloroform	67-66-3	5	U	5	1	1.01
10237	1-Chlorohexane	544-10-5	5	U	5	1	1.01
10237	Chloromethane	74-87-3	5	U	5	2	1.01
10237	2-Chlorotoluene	95-49-8	5	U	5	1	1.01
10237	4-Chlorotoluene	106-43-4	5	U	5	1	1.01
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	1.01
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1.01
10237	Dibromochloromethane	124-48-1	5	U	5	1	1.01
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	1.01
10237	Dibromomethane	74-95-3	5	U	5	1	1.01
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1.01
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1.01
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1.01
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	1.01
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	1.01
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	1.01
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	1.01
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	1.01
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	1.01
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	1.01
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	1.01
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	1.01
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	1.01
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	1.01
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	1.01
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	1.01
10237	Ethylbenzene	100-41-4	5	U	5	1	1.01
10237	Freon 113	76-13-1	5	U	5	2	1.01
10237	Freon 133a	75-88-7	5	U	5	2	1.01
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	1.01
10237	2-Hexanone	591-78-6	11	U	11	3	1.01

*=This limit was used in the evaluation of the final result

Sample Description: SVL-630-SA5A-SB-1.5-2.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7492848
LL Group # 1480550
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 13:54 by AP

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63015 SDG#: PH223-05*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	1.01
10237	Isopropylbenzene	98-82-8	5	U	5	1	1.01
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	1.01
10237	Methyl Iodide	74-88-4	5	U	5	3	1.01
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1.01
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	1.01
10237	Methylene Chloride	75-09-2	5	U	5	2	1.01
10237	n-Propylbenzene	103-65-1	5	U	5	1	1.01
10237	Styrene	100-42-5	5	U	5	1	1.01
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	1.01
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	1.01
10237	Tetrachloroethene	127-18-4	5	U	5	1	1.01
10237	Toluene	108-88-3	5	U	5	1	1.01
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1.01
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1.01
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	1.01
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	1.01
10237	Trichloroethene	79-01-6	5	U	5	1	1.01
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	1.01
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1.01
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1.01
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1.01
10237	Vinyl Acetate	108-05-4	11	U	11	2	1.01
10237	Vinyl Chloride	75-01-4	5	U	5	1	1.01
10237	m+p-Xylene	179601-23-1	5	U	5	1	1.01
10237	o-Xylene	95-47-6	5	U	5	1	1.01
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	5.3		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141642AA	06/14/2014 08:15	Stephanie A Selis	1.01
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201416134761	06/10/2014 12:24	Larry E Bevins	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-630-SA5A-SB-1.5-2.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7492848
LL Group # 1480550
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 13:54 by AP

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63015 SDG#: PH223-05*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201416134761	06/10/2014 12:24	Larry E Bevins	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201416134761	06/10/2014 12:23	Larry E Bevins	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14164162401A	06/13/2014 18:32	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480550
Reported: 07/07/14 at 12:15 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B141612AA	Sample number(s): 7492844,7492846-7492847									
Acetone	20	U	20.	7	ug/kg	106		41-149		
Acrolein	100 U		100.	20	ug/kg	88		50-137		
Acrylonitrile	20	U	20.	4	ug/kg	103		58-123		
t-Amyl methyl ether	5	U	5.	1	ug/kg	99		63-130		
Benzene	5	U	5.	0.5	ug/kg	106		80-120		
Bromobenzene	5	U	5.	1	ug/kg	99		78-120		
Bromochloromethane	5	U	5.	1	ug/kg	113		75-129		
Bromodichloromethane	5	U	5.	1	ug/kg	102		75-120		
Bromoform	5	U	5.	1	ug/kg	99		70-126		
Bromomethane	5	U	5.	2	ug/kg	106		32-162		
2-Butanone	10	U	10.	4	ug/kg	101		47-136		
t-Butyl alcohol	50	U	50.	20	ug/kg	121		66-133		
n-Butylbenzene	5	U	5.	1	ug/kg	97		72-120		
sec-Butylbenzene	5	U	5.	1	ug/kg	96		69-120		
tert-Butylbenzene	5	U	5.	1	ug/kg	97		75-120		
Carbon Disulfide	5	U	5.	1	ug/kg	107		63-128		
Carbon Tetrachloride	5	U	5.	1	ug/kg	110		69-130		
Chlorobenzene	5	U	5.	1	ug/kg	104		80-120		
Chloroethane	5	U	5.	2	ug/kg	100		17-171		
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/kg	87		52-134		
Chloroform	5	U	5.	1	ug/kg	111		80-120		
1-Chlorohexane	5	U	5.	1	ug/kg	81		70-130		
Chloromethane	5	U	5.	2	ug/kg	103		56-120		
2-Chlorotoluene	5	U	5.	1	ug/kg	98		78-120		
4-Chlorotoluene	5	U	5.	1	ug/kg	100		79-120		
Chlorotrifluoroethene	5	U	5.	2	ug/kg	79		22-131		
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/kg	99		50-132		
Dibromochloromethane	5	U	5.	1	ug/kg	105		77-120		
1,2-Dibromoethane	5	U	5.	1	ug/kg	104		80-120		
Dibromomethane	5	U	5.	1	ug/kg	106		75-120		
1,2-Dichlorobenzene	5	U	5.	1	ug/kg	100		80-120		
1,3-Dichlorobenzene	5	U	5.	1	ug/kg	97		80-120		
1,4-Dichlorobenzene	5	U	5.	1	ug/kg	99		80-120		
Dichlorodifluoromethane	5	U	5.	2	ug/kg	107		26-137		
1,1-Dichloroethane	5	U	5.	1	ug/kg	105		71-122		
1,2-Dichloroethane	5	U	5.	1	ug/kg	109		66-136		
1,1-Dichloroethene	5	U	5.	1	ug/kg	116		73-129		
cis-1,2-Dichloroethene	5	U	5.	1	ug/kg	109		80-120		
trans-1,2-Dichloroethene	5	U	5.	1	ug/kg	113		79-120		
1,2-Dichloropropane	5	U	5.	1	ug/kg	101		77-120		
1,3-Dichloropropane	5	U	5.	1	ug/kg	99		73-120		
2,2-Dichloropropane	5	U	5.	1	ug/kg	110		72-123		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480550
Reported: 07/07/14 at 12:15 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/kg	112		77-120		
cis-1,3-Dichloropropene	5	U	5.	1	ug/kg	102		74-120		
trans-1,3-Dichloropropene	5	U	5.	1	ug/kg	100		69-120		
Ethyl t-butyl ether	5	U	5.	1	ug/kg	103		59-134		
Ethylbenzene	5	U	5.	1	ug/kg	103		80-120		
Freon 113	5	U	5.	2	ug/kg	105		64-137		
Freon 133a	5	U	5.	2	ug/kg	104		78-120		
Hexachlorobutadiene	5	U	5.	2	ug/kg	94		46-130		
2-Hexanone	10	U	10.	3	ug/kg	95		40-129		
di-Isopropyl ether	5	U	5.	1	ug/kg	104		68-128		
Isopropylbenzene	5	U	5.	1	ug/kg	103		76-120		
p-Isopropyltoluene	5	U	5.	1	ug/kg	93		69-120		
Methyl Iodide	5	U	5.	3	ug/kg	115		72-130		
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/kg	108		69-126		
4-Methyl-2-pentanone	10	U	10.	3	ug/kg	102		43-133		
Methylene Chloride	5	U	5.	2	ug/kg	117		80-124		
n-Propylbenzene	5	U	5.	1	ug/kg	100		77-120		
Styrene	5	U	5.	1	ug/kg	102		76-120		
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/kg	103		80-120		
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/kg	99		71-123		
Tetrachloroethene	5	U	5.	1	ug/kg	98		78-120		
Toluene	5	U	5.	1	ug/kg	102		80-120		
1,2,3-Trichlorobenzene	5	U	5.	1	ug/kg	94		64-120		
1,2,4-Trichlorobenzene	5	U	5.	1	ug/kg	96		68-120		
1,1,1-Trichloroethane	5	U	5.	1	ug/kg	101		63-135		
1,1,2-Trichloroethane	5	U	5.	1	ug/kg	104		80-120		
Trichloroethene	5	U	5.	1	ug/kg	108		80-120		
Trichlorofluoromethane	5	U	5.	2	ug/kg	103		58-133		
1,2,3-Trichloropropane	5	U	5.	1	ug/kg	104		71-123		
1,2,4-Trimethylbenzene	5	U	5.	1	ug/kg	99		79-120		
1,3,5-Trimethylbenzene	5	U	5.	1	ug/kg	99		78-120		
Vinyl Acetate	10	U	10.	2	ug/kg	65		40-127		
Vinyl Chloride	5	U	5.	1	ug/kg	107		59-120		
m+p-Xylene	5	U	5.	1	ug/kg	104		80-120		
o-Xylene	5	U	5.	1	ug/kg	101		80-120		
Batch number: B141642AA	Sample number(s): 7492848									
Acetone	20	U	20.	7	ug/kg	114	103	41-149	10	30
Acrolein	100 U		100.	20	ug/kg	84	78	50-137	8	30
Acrylonitrile	20	U	20.	4	ug/kg	90	98	58-123	9	30
t-Amyl methyl ether	5	U	5.	1	ug/kg	94	99	63-130	5	30
Benzene	5	U	5.	0.5	ug/kg	102	103	80-120	1	30
Bromobenzene	5	U	5.	1	ug/kg	107	101	78-120	6	30
Bromochloromethane	5	U	5.	1	ug/kg	107	108	75-129	1	30
Bromodichloromethane	5	U	5.	1	ug/kg	100	102	75-120	2	30
Bromoform	5	U	5.	1	ug/kg	103	108	70-126	5	30
Bromomethane	5	U	5.	2	ug/kg	111	105	32-162	5	30
2-Butanone	10	U	10.	4	ug/kg	84	89	47-136	6	30
t-Butyl alcohol	50	U	50.	20	ug/kg	105	106	66-133	1	30
n-Butylbenzene	5	U	5.	1	ug/kg	102	95	72-120	8	30
sec-Butylbenzene	5	U	5.	1	ug/kg	99	92	69-120	7	30
tert-Butylbenzene	5	U	5.	1	ug/kg	105	95	75-120	9	30
Carbon Disulfide	5	U	5.	1	ug/kg	104	99	63-128	4	30
Carbon Tetrachloride	5	U	5.	1	ug/kg	109	109	69-130	0	30
Chlorobenzene	5	U	5.	1	ug/kg	106	106	80-120	0	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480550
Reported: 07/07/14 at 12:15 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroethane	5	U	5.	2	ug/kg	101	99	17-171	2	30
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/kg	73	80	52-134	8	30
Chloroform	5	U	5.	1	ug/kg	108	108	80-120	0	30
1-Chlorohexane	5	U	5.	1	ug/kg	73	72	70-130	2	30
Chloromethane	5	U	5.	2	ug/kg	98	101	56-120	3	30
2-Chlorotoluene	5	U	5.	1	ug/kg	103	99	78-120	4	30
4-Chlorotoluene	5	U	5.	1	ug/kg	107	102	79-120	5	30
Chlorotrifluoroethene	5	U	5.	2	ug/kg	70	68	22-131	3	30
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/kg	94	94	50-132	0	30
Dibromochloromethane	5	U	5.	1	ug/kg	105	108	77-120	2	30
1,2-Dibromoethane	5	U	5.	1	ug/kg	102	107	80-120	5	30
Dibromomethane	5	U	5.	1	ug/kg	98	103	75-120	5	30
1,2-Dichlorobenzene	5	U	5.	1	ug/kg	109	101	80-120	8	30
1,3-Dichlorobenzene	5	U	5.	1	ug/kg	109	103	80-120	6	30
1,4-Dichlorobenzene	5	U	5.	1	ug/kg	107	101	80-120	6	30
Dichlorodifluoromethane	5	U	5.	2	ug/kg	105	100	26-137	4	30
1,1-Dichloroethane	5	U	5.	1	ug/kg	99	100	71-122	1	30
1,2-Dichloroethane	5	U	5.	1	ug/kg	108	108	66-136	0	30
1,1-Dichloroethene	5	U	5.	1	ug/kg	116	117	73-129	1	30
cis-1,2-Dichloroethene	5	U	5.	1	ug/kg	105	105	80-120	1	30
trans-1,2-Dichloroethene	5	U	5.	1	ug/kg	117	117	79-120	0	30
1,2-Dichloropropane	5	U	5.	1	ug/kg	96	97	77-120	1	30
1,3-Dichloropropane	5	U	5.	1	ug/kg	95	100	73-120	4	30
2,2-Dichloropropane	5	U	5.	1	ug/kg	104	105	72-123	1	30
1,1-Dichloropropene	5	U	5.	1	ug/kg	106	107	77-120	0	30
cis-1,3-Dichloropropene	5	U	5.	1	ug/kg	96	99	74-120	3	30
trans-1,3-Dichloropropene	5	U	5.	1	ug/kg	96	100	69-120	4	30
Ethyl t-butyl ether	5	U	5.	1	ug/kg	93	98	59-134	5	30
Ethylbenzene	5	U	5.	1	ug/kg	105	104	80-120	1	30
Freon 113	5	U	5.	2	ug/kg	106	102	64-137	3	30
Freon 133a	5	U	5.	2	ug/kg	111	106	78-120	5	30
Hexachlorobutadiene	5	U	5.	2	ug/kg	110	104	46-130	6	30
2-Hexanone	10	U	10.	3	ug/kg	83	90	40-129	8	30
di-Isopropyl ether	5	U	5.	1	ug/kg	94	97	68-128	2	30
Isopropylbenzene	5	U	5.	1	ug/kg	106	105	76-120	1	30
p-Isopropyltoluene	5	U	5.	1	ug/kg	103	95	69-120	8	30
Methyl Iodide	5	U	5.	3	ug/kg	121	117	72-130	3	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/kg	103	106	69-126	3	30
4-Methyl-2-pentanone	10	U	10.	3	ug/kg	84	93	43-133	10	30
Methylene Chloride	5	U	5.	2	ug/kg	119	116	80-124	2	30
n-Propylbenzene	5	U	5.	1	ug/kg	103	97	77-120	7	30
Styrene	5	U	5.	1	ug/kg	106	107	76-120	2	30
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/kg	110	109	80-120	1	30
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/kg	95	90	71-123	5	30
Tetrachloroethene	5	U	5.	1	ug/kg	107	109	78-120	1	30
Toluene	5	U	5.	1	ug/kg	102	103	80-120	1	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/kg	104	102	64-120	2	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/kg	107	102	68-120	4	30
1,1,1-Trichloroethane	5	U	5.	1	ug/kg	98	98	63-135	0	30
1,1,2-Trichloroethane	5	U	5.	1	ug/kg	103	104	80-120	1	30
Trichloroethene	5	U	5.	1	ug/kg	106	107	80-120	1	30
Trichlorofluoromethane	5	U	5.	2	ug/kg	107	105	58-133	2	30
1,2,3-Trichloropropane	5	U	5.	1	ug/kg	104	98	71-123	5	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/kg	107	98	79-120	9	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/kg	106	99	78-120	7	30
Vinyl Acetate	10	U	10.	2	ug/kg	103	102	40-127	1	30

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480550
Reported: 07/07/14 at 12:15 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vinyl Chloride	5	U	5.	1	ug/kg	106	103	59-120	3	30
m+p-Xylene	5	U	5.	1	ug/kg	105	106	80-120	1	30
o-Xylene	5	U	5.	1	ug/kg	104	105	80-120	1	30
Batch number: Y141621AA	Sample number(s): 7492845									
Acetone	20	U	20.	6	ug/l	93	93	43-149	1	30
Acrolein	100 U		100.	40	ug/l	73	74	52-129	0	30
Acrylonitrile	20	U	20.	4	ug/l	93	93	62-120	1	30
t-Amyl methyl ether	1	U	1.	0.5	ug/l	94	95	75-120	2	30
Benzene	1	U	1.	0.5	ug/l	95	98	78-120	2	30
Bromobenzene	5	U	5.	1	ug/l	99	99	80-120	1	30
Bromochloromethane	5	U	5.	1	ug/l	99	100	80-121	1	30
Bromodichloromethane	1	U	1.	0.5	ug/l	94	96	73-120	2	30
Bromoform	4	U	4.	0.5	ug/l	87	87	61-120	1	30
Bromomethane	1	U	1.	0.5	ug/l	101	103	58-120	1	30
2-Butanone	10	U	10.	3	ug/l	89	89	54-133	0	30
t-Butyl alcohol	50	U	50.	5	ug/l	98	97	75-120	0	30
n-Butylbenzene	5	U	5.	1	ug/l	89	91	68-120	3	30
sec-Butylbenzene	5	U	5.	1	ug/l	93	95	80-120	2	30
tert-Butylbenzene	5	U	5.	1	ug/l	95	96	73-120	1	30
Carbon Disulfide	5	U	5.	1	ug/l	90	91	58-126	0	30
Carbon Tetrachloride	1	U	1.	0.5	ug/l	103	104	74-130	1	30
Chlorobenzene	1	U	1.	0.5	ug/l	96	98	80-120	2	30
Chloroethane	1	U	1.	0.5	ug/l	93	97	56-120	5	30
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/l	105	108	54-126	3	30
Chloroform	1	U	1.	0.5	ug/l	100	100	80-122	0	30
1-Chlorohexane	5	U	5.	1	ug/l	81	84	80-120	3	30
Chloromethane	1	U	1.	0.5	ug/l	101	106	63-120	5	30
2-Chlorotoluene	5	U	5.	1	ug/l	93	95	80-120	2	30
4-Chlorotoluene	5	U	5.	1	ug/l	94	95	80-120	1	30
Chlorotrifluoroethene	5	U	5.	2	ug/l	55	54	47-120	1	30
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/l	86	86	56-120	0	30
Dibromochloromethane	1	U	1.	0.5	ug/l	96	97	72-120	1	30
1,2-Dibromoethane	1	U	1.	0.5	ug/l	100	100	76-120	1	30
Dibromomethane	1	U	1.	0.5	ug/l	94	95	80-120	1	30
1,2-Dichlorobenzene	5	U	5.	1	ug/l	95	96	80-120	1	30
1,3-Dichlorobenzene	5	U	5.	1	ug/l	96	97	80-120	1	30
1,4-Dichlorobenzene	5	U	5.	1	ug/l	97	98	80-120	2	30
Dichlorodifluoromethane	1	U	1.	0.5	ug/l	103	103	48-132	1	30
1,1-Dichloroethane	1	U	1.	0.5	ug/l	92	98	80-120	6	30
1,2-Dichloroethane	1	U	1.	0.5	ug/l	100	103	65-135	3	30
1,1-Dichloroethene	1	U	1.	0.5	ug/l	109	111	76-124	2	30
cis-1,2-Dichloroethene	1	U	1.	0.5	ug/l	97	98	80-120	1	30
trans-1,2-Dichloroethene	1	U	1.	0.5	ug/l	113	115	80-120	2	30
1,2-Dichloropropane	1	U	1.	0.5	ug/l	91	94	80-120	3	30
1,3-Dichloropropane	1	U	1.	0.5	ug/l	93	93	80-120	1	30
2,2-Dichloropropane	1	U	1.	0.5	ug/l	98	97	67-124	1	30
1,1-Dichloropropene	5	U	5.	1	ug/l	101	103	80-120	3	30
cis-1,3-Dichloropropene	1	U	1.	0.5	ug/l	90	92	80-120	2	30
trans-1,3-Dichloropropene	1	U	1.	0.5	ug/l	91	92	76-120	0	30
Ethyl t-butyl ether	1	U	1.	0.5	ug/l	94	97	74-120	2	30
Ethylbenzene	1	U	1.	0.5	ug/l	95	96	79-120	1	30
Freon 113	10	U	10.	2	ug/l	98	98	67-127	1	30
Freon 133a	5	U	5.	2	ug/l	98	100	46-152	2	30
Hexachlorobutadiene	5	U	5.	2	ug/l	87	91	51-125	4	30

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480550
Reported: 07/07/14 at 12:15 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
2-Hexanone	10	U	10.	3	ug/l	88	88	44-126	0	30
di-Isopropyl ether	1	U	1.	0.5	ug/l	94	95	65-120	1	30
Isopropylbenzene	5	U	5.	1	ug/l	96	97	77-120	1	30
p-Isopropyltoluene	5	U	5.	1	ug/l	93	93	80-120	1	30
Methyl Iodide	1	U	1.	0.5	ug/l	107	109	75-128	2	30
Methyl Tertiary Butyl Ether	1	U	1.	0.5	ug/l	108	108	75-120	1	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	90	91	51-124	1	30
Methylene Chloride	3	U	3.	2	ug/l	107	109	80-120	2	30
n-Propylbenzene	5	U	5.	1	ug/l	94	96	80-120	2	30
Styrene	5	U	5.	1	ug/l	96	97	80-120	1	30
1,1,1,2-Tetrachloroethane	1	U	1.	0.5	ug/l	98	99	80-120	1	30
1,1,2,2-Tetrachloroethane	1	U	1.	0.5	ug/l	89	89	70-120	1	30
Tetrachloroethene	1	U	1.	0.5	ug/l	103	107	80-120	4	30
Toluene	1	U	1.	0.5	ug/l	96	96	80-120	0	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	90	94	58-126	3	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	94	96	65-120	2	30
1,1,1-Trichloroethane	1	U	1.	0.5	ug/l	89	90	66-126	1	30
1,1,2-Trichloroethane	1	U	1.	0.5	ug/l	94	95	80-120	1	30
Trichloroethene	1	U	1.	0.5	ug/l	100	102	80-120	3	30
Trichlorofluoromethane	1	U	1.	0.5	ug/l	100	100	65-130	1	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	94	94	76-120	0	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	96	97	74-120	2	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	96	97	74-120	1	30
Vinyl Acetate	10	U	10.	2	ug/l	77	76	56-135	1	30
Vinyl Chloride	1	U	1.	0.5	ug/l	99	103	63-120	3	30
m+p-Xylene	1	U	1.	0.5	ug/l	94	97	80-120	3	30
o-Xylene	1	U	1.	0.5	ug/l	94	96	80-120	2	30
Batch number: 14164162401A	Sample number(s): 7492844,7492846-7492848									
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: B141612AA	Sample number(s): 7492844,7492846-7492847 UNSPK: P488099								
Acetone	89	96	31-195	6	30				
Acrolein	85	89	10-165	4	30				
Acrylonitrile	87	85	48-139	4	30				
t-Amyl methyl ether	94	97	50-132	2	30				
Benzene	105	105	55-143	1	30				
Bromobenzene	103	103	43-139	1	30				
Bromochloromethane	124	115	60-137	9	30				
Bromodichloromethane	97	97	53-136	1	30				
Bromoform	93	91	50-144	4	30				
Bromomethane	111	112	42-168	0	30				
2-Butanone	81	86	37-163	4	30				
t-Butyl alcohol	126	123	47-153	4	30				
n-Butylbenzene	97	99	30-146	1	30				
sec-Butylbenzene	103	104	33-157	1	30				

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480550
Reported: 07/07/14 at 12:15 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
tert-Butylbenzene	105	107	41-152	0	30				
Carbon Disulfide	112	111	48-146	2	30				
Carbon Tetrachloride	114	114	51-165	1	30				
Chlorobenzene	105	103	49-135	3	30				
Chloroethane	107	106	39-152	3	30				
2-Chloroethyl Vinyl Ether	70	78	32-139	9	30				
Chloroform	108	108	61-142	1	30				
1-Chlorohexane	94	98	70-130	2	30				
Chloromethane	109	112	36-143	1	30				
2-Chlorotoluene	104	103	42-146	2	30				
4-Chlorotoluene	105	105	39-145	2	30				
Chlorotrifluoroethene	91	108	70-130	16	30				
1,2-Dibromo-3-chloropropane	85	88	34-165	1	30				
Dibromochloromethane	105	98	51-128	8	30				
1,2-Dibromoethane	100	99	54-129	2	30				
Dibromomethane	94	98	57-130	2	30				
1,2-Dichlorobenzene	97	100	36-133	2	30				
1,3-Dichlorobenzene	101	103	34-134	1	30				
1,4-Dichlorobenzene	101	101	35-136	1	30				
Dichlorodifluoromethane	123	123	26-151	1	30				
1,1-Dichloroethane	103	103	63-142	1	30				
1,2-Dichloroethane	103	106	54-143	2	30				
1,1-Dichloroethene	121	119	61-149	3	30				
cis-1,2-Dichloroethene	106	108	67-135	0	30				
trans-1,2-Dichloroethene	120	112	64-144	8	30				
1,2-Dichloropropane	98	98	54-144	1	30				
1,3-Dichloropropane	96	95	51-140	2	30				
2,2-Dichloropropane	109	111	53-147	0	30				
1,1-Dichloropropene	113	114	54-145	1	30				
cis-1,3-Dichloropropene	94	96	45-137	1	30				
trans-1,3-Dichloropropene	100	98	51-134	3	30				
Ethyl t-butyl ether	95	97	58-124	1	30				
Ethylbenzene	109	106	44-141	4	30				
Freon 113	114	111	56-156	4	30				
Freon 133a	111	132*	61-131	17	30				
Hexachlorobutadiene	90	84	10-155	8	30				
2-Hexanone	80	81	32-160	0	30				
di-Isopropyl ether	98	99	59-133	0	30				
Isopropylbenzene	106	103	38-144	4	30				
p-Isopropyltoluene	102	98	29-152	5	30				
Methyl Iodide	116	115	52-139	2	30				
Methyl Tertiary Butyl Ether	98	99	55-129	0	30				
4-Methyl-2-pentanone	80	84	46-139	4	30				
Methylene Chloride	112	117	60-149	4	30				
n-Propylbenzene	106	107	39-157	0	30				
Styrene	104	107	35-134	2	30				
1,1,1,2-Tetrachloroethane	106	104	55-139	3	30				
1,1,2,2-Tetrachloroethane	90	95	29-182	4	30				
Tetrachloroethene	109	107	42-149	4	30				
Toluene	110	106	50-146	4	30				
1,2,3-Trichlorobenzene	79	85	10-140	6	30				
1,2,4-Trichlorobenzene	85	88	10-136	2	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480550
Reported: 07/07/14 at 12:15 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
1,1,1-Trichloroethane	106	106	52-146	1	30				
1,1,2-Trichloroethane	102	99	58-152	4	30				
Trichloroethene	107	107	53-144	1	30				
Trichlorofluoromethane	117	117	47-163	0	30				
1,2,3-Trichloropropane	98	102	36-180	3	30				
1,2,4-Trimethylbenzene	106	104	37-149	3	30				
1,3,5-Trimethylbenzene	105	106	38-150	0	30				
Vinyl Acetate	55	64	21-139	16	30				
Vinyl Chloride	114	117	50-154	1	30				
m+p-Xylene	109	106	44-137	4	30				
o-Xylene	105	102	42-137	4	30				
Batch number: 14164162401A	Sample number(s): 7492844,7492846-7492848					BKG: 7492844			
14a Moisture Content by 160.3						3.6	3.6	0	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12a Volatile Organics EPA8260B
Batch number: B141612AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7492844	113	115	97	97
7492846	108	105	99	92
7492847	109	104	99	93
Blank	104	104	100	96
LCS	108	113	103	103
MS	101	100	104	101
MSD	102	99	102	99
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 12a Volatile Organics EPA8260B
Batch number: B141642AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7492848	109	105	97	93
Blank	107	108	98	93
LCS	105	103	100	104
LCSD	104	103	100	99
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141621AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene

*- Outside of specification
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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480550
Reported: 07/07/14 at 12:15 PM

Surrogate Quality Control

7492845	101	98	96	94
Blank	100	98	96	95
LCS	100	96	97	97
LCSD	101	98	97	98
Limits:	86-118	80-120	88-110	86-115

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

13013 1480550 7492844-48

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/9/2014
CarrierName: FedEx
AirbillNo: 770243934110

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140609-02
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
SVL-611-SA5A-SB-1.35-1.85	6/9/14 10:39	SO	None	3 - Encore	10 day																		X																		
SVL-611-SA5A-SB-1.35-1.85	6/9/14 10:39	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture
TB-060914	6/9/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																		X																		
SVL-527-SA6-SB-2.0-3.0	6/9/14 03:25	SO	None	3 - Encore	10 day																		X																		
SVL-527-SA6-SB-2.0-3.0	6/9/14 03:25	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture
SVL-574-SA6-SB-3.8-4.3	6/9/14 14:48	SO	None	3 - Encore	10 day																		X																		
SVL-574-SA6-SB-3.8-4.3	6/9/14 14:48	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture
SVL-630-SA5A-SB-1.5-2.0	6/9/14 13:54	SO	None	3 - Encore	10 day																		X																		
SVL-630-SA5A-SB-1.5-2.0	6/9/14 13:54	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture

Special Instructions:

Sampler: Andrew Payne Rob Ellis

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Sergio Mupela	6/09/14	1600									
										6.10.14	910

Soil Vapor 1 of 1

Nicole Maljovec

From: Mysel, Stefanie <MyselSJ@cdmsmith.com>
Sent: Wednesday, June 11, 2014 12:19 PM
To: Nicole Maljovec
Cc: Natalie Luciano; Hartman, Pamela; Burgesser, Todd; Zakowski, Cherie
Subject: 1480242-SSFL Phase 3 Sampling-06/07/2014 9:15:00 Acknowledgement
Attachments: 1480242c.pdf; 1480242d.pdf; EAcknow_1480242.xls; Lancaster 060914 COC(2)-REV.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Nicole,

I noticed an error on our COC which was reflected on this log in that needs to be changed. The time for sample SVL-527-SA6-SB-2.0-3.0 says 3:25. The time needs to be changed to 13:25. I have attached are revised relinquished COC for your records.

Stefanie J. Mysel
Geologist

CDM Smith
111 Academy Way
Suite 150
Irvine, CA 92617
Direct: 949-930-9877
Main: 949-752-5452
Cell: 949-579-0634
Email: myselsj@cdmsmith.com<mailto:myselsj@cdmsmith.com>

From: USLAN-PXAdmin [USLAN-PXAdmin@lancasterlabs.com]
Sent: Wednesday, June 11, 2014 8:39 AM
To: Burgesser, Todd; Zakowski, Cherie; Hartman, Pamela; Mysel, Stefanie
Subject: 1480242-SSFL Phase 3 Sampling-06/07/2014 9:15:00 Acknowledgement

The following is an acknowledgement of the receipt of samples by Lancaster Laboratories. Please review this acknowledgement and contact your Client Service Representative if you have concerns.

This is an automated message from an unmonitored address. Please do not reply to this address.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/9/2014
CarrierName: FedEx
AirbillNo: 770243934110

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140609-02
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Revised COC NLM 6/16/14

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate Confirm 6850/6860	Perchlorate 314.0/331	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terpenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc. Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
SVL-611-SA5A-SB-1.35-1.85	6/9/14 10:39	SO	None	3 - Encore	10 day																		X																			
SVL-611-SA5A-SB-1.35-1.85	6/9/14 10:39	SO	None	1 - 4 oz glass	10 day																		X																			Soil Moisture
TB-060914	6/9/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																		X																			
SVL-527-SA6-SB-2.0-3.0	6/9/14 13:25	SO	None	3 - Encore	10 day																		X																			
SVL-527-SA6-SB-2.0-3.0	6/9/14 13:25	SO	None	1 - 4 oz glass	10 day																		X																			Soil Moisture
SVL-574-SA6-SB-3.8-4.3	6/9/14 14:48	SO	None	3 - Encore	10 day																		X																			
SVL-574-SA6-SB-3.8-4.3	6/9/14 14:48	SO	None	1 - 4 oz glass	10 day																		X																			Soil Moisture
SVL-630-SA5A-SB-1.5-2.0	6/9/14 13:54	SO	None	3 - Encore	10 day																		X																			
SVL-630-SA5A-SB-1.5-2.0	6/9/14 13:54	SO	None	1 - 4 oz glass	10 day																		X																			Soil Moisture

Special Instructions:

Sampler: Andrew Payne Rob Ellis

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Stacy Mypelaan	6/9/14	16000									

COC Rev 4

COC: 20140609-02, Page 1 of 1

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 16892

Group Number(s): 1480550

Client: CDM

SSFL

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	06/10/2014 9:10
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	3
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	Yes		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Brandy Barclay (2299) at 10:06 on 06/10/2014

Samples Chilled Details: SSFL

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	8013596-IR	0.5	IR	Wet	Y	Bagged	N	N

Container Quantity Discrepancy Details: SSFL

Sample ID on COC	Container Qty. Received	Container Qty. on COC	Comments
FDG2-SL-858-NBZ-SB-0.0-0.5	2	3	Only received 1 sleeve and 1 jar

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.cor

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

July 07, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 06/10/2014
Group Number: 1480552
SDG: PH224
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
FDG2-SL-558-NBZ-SB-0.0-0.5 Soil	7492863
FDG2-SL-558-NBZ-SB-0.0-0.5MS Soil	7492864
FDG2-SL-558-NBZ-SB-0.0-0.5MSD Soil	7492865
FDG2-SL-558-NBZ-SB-0.0-0.5DUP Soil	7492866
FDG2-SL-559-NBZ-SB-0.0-0.5 Soil	7492867
FDG2-SL-632-NBZ-SB-0.0-0.5 Soil	7492868
FDG2-SL-858-NBZ-SB-0.0-0.5 Soil	7492869

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: FDG2-SL-558-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7492863
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:30 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55800 SDG#: PH224-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	0.76	J	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	1.5	J	1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	7.3		1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	8.2	J	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	1.5	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	21		18	6.1	1
12969	Fluoranthene	206-44-0	1.7		1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	0.77	J	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	0.83	J	1.7	0.68	1
12969	Naphthalene	91-20-3	1.4	J	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	1.4	J	1.7	0.68	1
12969	Pyrene	129-00-0	1.4	J	1.7	0.68	1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: N-Nitrosodimethylamine						
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	37	U	37	12	1
10401	Dalapon	75-99-0	92	U	92	45	1
10401	2,4-DB	94-82-6	20	U	20	20	1
10401	Dicamba	1918-00-9	12	U	12	4.1	1
10401	Dinoseb	88-85-7	24	U	24	9.2	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.						
10401	2,4-DP (Dichlorprop)	120-36-5	17	U	17	9.2	1
10401	MCPA	94-74-6	2,500	U	2,500	770	1
10401	MCPP (Mecoprop)	93-65-2	2,500	U	2,500	760	1
10401	2,4,5-T	93-76-5	1.7	U	1.7	0.84	1
10401	2,4,5-TP	93-72-1	1.7	U	1.7	0.76	1
	Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.83	U	0.83	0.17	1
10590	Alpha BHC	319-84-6	0.83	U	0.83	0.17	1
10590	Beta BHC	319-85-7	1.9	U	1.9	0.97	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-558-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7492863
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:30 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55800 SDG#: PH224-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Gamma BHC - Lindane	58-89-9	0.83	U	0.83	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.0	1
10590	p,p-DDD	72-54-8	1.7	U	1.7	0.33	1
10590	p,p-DDE	72-55-9	0.99	J	1.7	0.33	1
10590	p,p-DDT	50-29-3	1.6	J	1.7	0.35	1
10590	Delta BHC	319-86-8	0.83	U	0.83	0.45	1
10590	Dieldrin	60-57-1	1.7	U	1.7	0.33	1
10590	Endosulfan I	959-98-8	0.83	U	0.83	0.22	1
10590	Endosulfan II	33213-65-9	1.7	U	1.7	0.33	1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.33	1
10590	Endrin	72-20-8	1.7	U	1.7	0.52	1
10590	Endrin Aldehyde	7421-93-4	0.79	J	1.7	0.33	1
10590	Endrin Ketone	53494-70-5	1.8	U	1.8	0.60	1
10590	Heptachlor	76-44-8	0.83	U	0.83	0.17	1
10590	Heptachlor Epoxide	1024-57-3	0.83	U	0.83	0.17	1
10590	Methoxychlor	72-43-5	6.7	U	6.7	1.7	1
10590	Mirex	2385-85-5	1.7	U	1.7	0.35	1
10590	Toxaphene	8001-35-2	33	U	33	14	1
	Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.1	1
13099	PCB-1232	11141-16-5	17	U	17	4.1	1
13099	PCB-1242	53469-21-9	17	U	17	4.1	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	17	U	17	4.4	1
13099	PCB-1260	11096-82-5	17	U	17	3.9	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	3.4	J	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	28		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	47		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	4.1	J	5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
	The reverse surrogate, capric acid, is present at <1%.						
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
	A target analyte(s) in the continuing calibration verification						

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-558-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7492863
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:30 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55800 SDG#: PH224-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	standard is outside the QC acceptance limits. The following corrective action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. All results are reported from the second trial per client request. The first trial results are: EFH (C8-C11) non-detect EFH (C12-C14) non-detect EFH (C15-C20) 4.3 mg/kg EFH (C21-C30) 33 mg/kg EFH (C30-C40) 50 mg/kg						
Metals		**SW-846 6010C**	**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,700		40.8	7.35	1
06944	Antimony	7440-36-0	4.08	U	4.08	0.754	1
06935	Arsenic	7440-38-2	3.91	J	4.08	0.714	1
06946	Barium	7440-39-3	106		1.02	0.0336	1
06947	Beryllium	7440-41-7	0.672	J	1.02	0.0683	1
07914	Boron	7440-42-8	8.75	J	10.2	0.856	1
06949	Cadmium	7440-43-9	0.356	J	1.02	0.0775	1
01650	Calcium	7440-70-2	3,950		20.4	3.40	1
06951	Chromium	7440-47-3	19.2		3.06	0.163	1
06952	Cobalt	7440-48-4	5.60		1.02	0.101	1
06953	Copper	7440-50-8	9.55		2.04	0.296	1
01654	Iron	7439-89-6	21,600		40.8	3.69	1
06955	Lead	7439-92-1	9.97		3.06	0.510	1
01656	Lithium	7439-93-2	33.2		4.1	0.35	1
01657	Magnesium	7439-95-4	4,570		10.2	1.70	1
06958	Manganese	7439-96-5	387		1.02	0.0846	1
06960	Molybdenum	7439-98-7	0.661	J	2.04	0.173	1
06961	Nickel	7440-02-0	14.4		2.04	0.133	1
10145	Phosphorus	7723-14-0	421		10.2	2.95	1
01662	Potassium	7440-09-7	4,310		102	8.50	1
01667	Sodium	7440-23-5	80.3	J	102	17.0	1
06969	Tin	7440-31-5	2.92	J	10.2	0.224	1
06970	Titanium	7440-32-6	1,030		1.02	0.173	1
06971	Vanadium	7440-62-2	36.3		1.02	0.133	1
06972	Zinc	7440-66-6	62.2		4.08	0.204	1
10146	Zirconium	7440-67-7	3.98	J	5.10	0.856	1
		SW-846 6020A	**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.351	J	0.408	0.102	2
06142	Silver	7440-22-4	0.0524	J	0.204	0.0265	2
06144	Strontium	7440-24-6	27.2		0.408	0.0693	2
06145	Thallium	7440-28-0	0.277		0.204	0.0306	2
		SW-846 7471B	**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0199		0.0164	0.0099	1
Wet Chemistry		**SW-846 9045D modified**	**Std. Units**		**Std. Units**	**Std. Units**	

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-558-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7492863
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:30 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55800 SDG#: PH224-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 22.5 C.	n.a.	6.29	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	1.9	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-558-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7492863
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Fairfax VA 22030

55800 SDG#: PH224-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.00	U	1.00	0.0762	1
11031	12378-PeCDD	40321-76-4	5.00	U	5.00	0.0585	1
11031	123478-HxCDD	39227-28-6	0.164	JBQ	5.00	0.0528	1
11031	123678-HxCDD	57653-85-7	0.359	JB	5.00	0.0549	1
11031	123789-HxCDD	19408-74-3	0.248	JBQ	5.00	0.0517	1
11031	1234678-HpCDD	35822-46-9	5.59	B	5.00	0.0563	1
11031	OCDD	3268-87-9	50.1	B	10.0	0.0406	1
11031	2378-TCDF	51207-31-9	0.192	JQ	1.00	0.103	1
11031	12378-PeCDF	57117-41-6	0.313	JB	5.00	0.0428	1
11031	23478-PeCDF	57117-31-4	0.406	JB	5.00	0.0436	1
11031	123478-HxCDF	70648-26-9	0.213	JBQ	5.00	0.0489	1
11031	123678-HxCDF	57117-44-9	0.209	JBQ	5.00	0.0418	1
11031	123789-HxCDF	72918-21-9	0.170	JB	5.00	0.0546	1
11031	234678-HxCDF	60851-34-5	0.186	JB	5.00	0.0443	1
11031	1234678-HpCDF	67562-39-4	1.05	JB	5.00	0.0392	1
11031	1234789-HpCDF	55673-89-7	0.194	JB	5.00	0.0620	1
11031	OCDF	39001-02-0	2.14	JB	10.0	0.0527	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.287				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	82	25 - 164
13C12-12378-PeCDD	90	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	82	23 - 140
13C12-OCDD	76	17 - 157
13C12-2378-TCDF	83	24 - 169
13C12-12378-PeCDF	100	24 - 185
13C12-23478-PeCDF	91	21 - 178
13C12-123478-HxCDF	80	26 - 152
13C12-123678-HxCDF	93	26 - 123
13C12-234678-HxCDF	85	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	102	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	64	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-558-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7492863
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

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55800 SDG#: PH224-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-558-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7492863
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

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3201 Jermantown Road
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Fairfax VA 22030

55800 SDG#: PH224-01BKG

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14163SLB026	06/17/2014 08:18	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14163SLB026	06/12/2014 17:00	JoElla L Rice	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	141620024A	06/13/2014 05:03	Lisa A Reinert	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141620028A	06/16/2014 18:21	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141610021A	06/11/2014 22:49	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141610021A	06/11/2014 05:20	Roman Kuropatkin	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141620028A	06/12/2014 10:00	William H Saadeh	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	141620024A	06/12/2014 08:30	David S Schrum	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141670004A	06/18/2014 00:53	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141670005A	06/19/2014 19:42	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141670005A	06/16/2014 15:15	Kelli M Barto	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141670004A	06/16/2014 15:15	Kelli M Barto	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14163002	06/13/2014 19:48	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14163002	06/12/2014 12:30	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-558-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7492863
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:30 by CN

Submitted: 06/10/2014 09:10
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CDM Federal Programs Corp.
3201 Jermantown Road
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Fairfax VA 22030

55800 SDG#: PH224-01BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06961	Nickel	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	141610637001	06/12/2014 04:40	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	141610637001B	06/12/2014 07:35	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141610637001A	06/12/2014 07:35	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141610637001A	06/12/2014 07:35	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141610637001A	06/12/2014 07:35	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141610638001	06/12/2014 08:51	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141610637001	06/11/2014 08:51	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141610638001	06/11/2014 12:00	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14161039403A	06/10/2014 22:25	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14164162401B	06/13/2014 18:32	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-558-NBZ-SB-0.0-0.5MS Soil
SSFL Phase 3

LL Sample # SW 7492864
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:30 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55800 SDG#: PH224-01MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	30		1.7	0.68	1
12969	Acenaphthylene	208-96-8	28		1.7	0.34	1
12969	Anthracene	120-12-7	28		1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	29		1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	28		1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	37		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	28		17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	14		1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	42		1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	43		18	6.1	1
12969	Di-n-butylphthalate	84-74-2	30		18	6.1	1
12969	Chrysene	218-01-9	31		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	17		1.7	0.68	1
12969	Diethylphthalate	84-66-2	29		18	6.1	1
12969	Dimethylphthalate	131-11-3	29		18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	38		18	6.1	1
12969	Fluoranthene	206-44-0	32		1.7	0.68	1
12969	Fluorene	86-73-7	30		1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	17		1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	30		1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	31		1.7	0.68	1
12969	Naphthalene	91-20-3	31		1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	21		1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	39		18	6.1	1
12969	Phenanthrene	85-01-8	30		1.7	0.68	1
12969	Pyrene	129-00-0	27		1.7	0.68	1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: N-Nitrosodimethylamine						
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	110		37	12	1
10401	Dalapon	75-99-0	80	J	92	45	1
10401	2,4-DB	94-82-6	17	U	17	6.3	1
10401	Dicamba	1918-00-9	9.0	J	12	4.1	1
10401	Dinoseb	88-85-7	24	U	24	9.2	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.						
10401	2,4-DP (Dichlorprop)	120-36-5	130		17	9.2	1
10401	MCPA	94-74-6	13,000		2,500	770	1
10401	MCPP (Mecoprop)	93-65-2	8,600		2,500	760	1
10401	2,4,5-T	93-76-5	11		1.7	0.84	1
10401	2,4,5-TP	93-72-1	10		1.7	0.76	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	2.9		0.85	0.17	1
10590	Alpha BHC	319-84-6	3.0		0.85	0.17	1
10590	Beta BHC	319-85-7	3.0		1.9	0.98	1
10590	Gamma BHC - Lindane	58-89-9	3.1		0.85	0.17	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-558-NBZ-SB-0.0-0.5MS Soil
SSFL Phase 3

LL Sample # SW 7492864
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:30 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
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55800 SDG#: PH224-01MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Chlordane	57-74-9	17	U	17	4.1	1
10590	p,p-DDD	72-54-8	6.9		1.7	0.34	1
10590	p,p-DDE	72-55-9	7.2		1.7	0.34	1
10590	p,p-DDT	50-29-3	8.5		1.7	0.36	1
10590	Delta BHC	319-86-8	3.3		0.85	0.46	1
10590	Dieldrin	60-57-1	6.5		1.7	0.34	1
10590	Endosulfan I	959-98-8	3.0		0.85	0.22	1
10590	Endosulfan II	33213-65-9	6.1		1.7	0.34	1
10590	Endosulfan Sulfate	1031-07-8	6.2		1.7	0.34	1
10590	Endrin	72-20-8	6.6		1.7	0.34	1
10590	Endrin Aldehyde	7421-93-4	6.0		1.7	0.34	1
10590	Endrin Ketone	53494-70-5	5.7		1.8	0.61	1
10590	Heptachlor	76-44-8	3.1		0.85	0.17	1
10590	Heptachlor Epoxide	1024-57-3	3.0		0.85	0.17	1
10590	Methoxychlor	72-43-5	35		6.8	1.7	1
10590	Mirex	2385-85-5	1.7	U	1.7	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	180		17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.1	1
13099	PCB-1232	11141-16-5	17	U	17	4.1	1
13099	PCB-1242	53469-21-9	17	U	17	4.1	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	17	U	17	4.4	1
13099	PCB-1260	11096-82-5	190		17	3.9	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	7.4		5.1	2.0	1
12952	EFH (C15-C20)	n.a.	12		5.1	2.0	1
12952	EFH (C21-C30)	n.a.	45		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	72		10	4.1	1
12952	EFH (C8-C11)	n.a.	4.7	J	5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1		5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.9		5.1	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	12		5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	14		10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	2.7	J	5.1	2.0	1

The reverse surrogate, capric acid, is present at <1%.
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.
A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken:

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-558-NBZ-SB-0.0-0.5MS Soil
SSFL Phase 3

LL Sample # SW 7492864
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:30 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55800 SDG#: PH224-01MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. All results are reported from the second trial per client request. The first trial results are: EFH (C8-C11) 5.3 mg/kg EFH (C12-C14) 7.8 mg/kg EFH (C15-C20) 14 mg/kg EFH (C21-C30) 48 mg/kg EFH (C30-C40) 72 mg/kg					
Metals	**SW-846 6010C**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	19,700	39.6	7.14	1
06944	Antimony	7440-36-0	18.9	3.96	0.732	1
06935	Arsenic	7440-38-2	19.7	3.96	0.693	1
06946	Barium	7440-39-3	305	0.990	0.0327	1
06947	Beryllium	7440-41-7	5.76	0.990	0.0663	1
07914	Boron	7440-42-8	193	9.90	0.831	1
06949	Cadmium	7440-43-9	5.07	0.990	0.0752	1
01650	Calcium	7440-70-2	4,560	19.8	3.31	1
06951	Chromium	7440-47-3	41.4	2.97	0.158	1
06952	Cobalt	7440-48-4	53.1	0.990	0.0980	1
06953	Copper	7440-50-8	35.7	1.98	0.287	1
01654	Iron	7439-89-6	23,900	39.6	3.58	1
06955	Lead	7439-92-1	25.9	2.97	0.495	1
01656	Lithium	7439-93-2	136	4.0	0.34	1
01657	Magnesium	7439-95-4	5,320	9.90	1.65	1
06958	Manganese	7439-96-5	452	0.990	0.0821	1
06960	Molybdenum	7439-98-7	185	1.98	0.168	1
06961	Nickel	7440-02-0	63.8	1.98	0.129	1
10145	Phosphorus	7723-14-0	505	9.90	2.86	1
01662	Potassium	7440-09-7	5,990	99.0	8.25	1
01667	Sodium	7440-23-5	1,080	99.0	16.5	1
06969	Tin	7440-31-5	348	9.90	0.218	1
06970	Titanium	7440-32-6	1,420	0.990	0.168	1
06971	Vanadium	7440-62-2	92.8	0.990	0.129	1
06972	Zinc	7440-66-6	115	3.96	0.198	1
10146	Zirconium	7440-67-7	92.6	4.95	0.831	1
	SW-846 6020A		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.48	0.396	0.0990	2
06142	Silver	7440-22-4	11.0	0.198	0.0257	2
06144	Strontium	7440-24-6	37.1	0.396	0.0673	2
06145	Thallium	7440-28-0	0.747	0.198	0.0297	2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.192	0.0165	0.0099	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	1.9	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-558-NBZ-SB-0.0-0.5MS Soil
SSFL Phase 3

LL Sample # SW 7492864
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:30 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55800 SDG#: PH224-01MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	19.1		1.01	0.0831	1
11031	12378-PeCDD	40321-76-4	101	B	5.04	0.0920	1
11031	123478-HxCDD	39227-28-6	99.8	B	5.04	0.0659	1
11031	123678-HxCDD	57653-85-7	100	B	5.04	0.0710	1
11031	123789-HxCDD	19408-74-3	101	B	5.04	0.0600	1
11031	1234678-HpCDD	35822-46-9	101	B	5.04	0.0578	1
11031	OCDD	3268-87-9	231	B	10.1	0.0489	1
11031	2378-TCDF	51207-31-9	21.1		1.01	0.125	1
11031	12378-PeCDF	57117-41-6	100	B	5.04	0.0575	1
11031	23478-PeCDF	57117-31-4	99.7	B	5.04	0.0565	1
11031	123478-HxCDF	70648-26-9	100	B	5.04	0.104	1
11031	123678-HxCDF	57117-44-9	101	B	5.04	0.0909	1
11031	123789-HxCDF	72918-21-9	99.0	B	5.04	0.113	1
11031	234678-HxCDF	60851-34-5	102	B	5.04	0.0970	1
11031	1234678-HpCDF	67562-39-4	98.8	B	5.04	0.0508	1
11031	1234789-HpCDF	55673-89-7	101	B	5.04	0.0830	1
11031	OCDF	39001-02-0	200	B	10.1	0.0579	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	87	25 - 164
13C12-12378-PeCDD	94	25 - 181
13C12-123478-HxCDD	90	32 - 141
13C12-123678-HxCDD	91	28 - 130
13C12-123789-HxCDD	99	28 - 130
13C12-1234678-HpCDD	88	23 - 140
13C12-OCDD	78	17 - 157
13C12-2378-TCDF	86	24 - 169
13C12-12378-PeCDF	101	24 - 185
13C12-23478-PeCDF	97	21 - 178
13C12-123478-HxCDF	87	26 - 152
13C12-123678-HxCDF	98	26 - 123
13C12-234678-HxCDF	90	28 - 136
13C12-123789-HxCDF	87	29 - 147
13C12-1234678-HpCDF	109	28 - 143
13C12-1234789-HpCDF	74	26 - 138
13C12-OCDF	66	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-558-NBZ-SB-0.0-0.5MS Soil
SSFL Phase 3

LL Sample # SW 7492864
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:30 by CN

Submitted: 06/10/2014 09:10
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55800 SDG#: PH224-01MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
S	*Saturation of detection signal*					

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-558-NBZ-SB-0.0-0.5MS Soil
SSFL Phase 3

LL Sample # SW 7492864
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

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CDM Federal Programs Corp.
3201 Jermantown Road
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Fairfax VA 22030

55800 SDG#: PH224-01MS

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14163SLB026	06/17/2014 09:04	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14163SLB026	06/12/2014 17:00	JoElla L Rice	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	141620024A	06/13/2014 05:30	Lisa A Reinert	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141620028A	06/16/2014 18:34	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141610021A	06/11/2014 23:07	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141610021A	06/11/2014 05:20	Roman Kuropatkin	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141620028A	06/12/2014 10:00	William H Saadeh	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	141620024A	06/12/2014 08:30	David S Schrum	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141670004A	06/18/2014 01:14	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141670005A	06/19/2014 20:06	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141670005A	06/16/2014 15:15	Kelli M Barto	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141670004A	06/16/2014 15:15	Kelli M Barto	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14163002	06/13/2014 22:38	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14163002	06/12/2014 12:30	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-558-NBZ-SB-0.0-0.5MS Soil
SSFL Phase 3

LL Sample # SW 7492864
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:30 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55800 SDG#: PH224-01MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06961	Nickel	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	141610637001	06/12/2014 04:52	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	141610637001B	06/12/2014 07:42	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141610637001A	06/12/2014 07:42	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141610637001A	06/12/2014 07:42	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141610637001A	06/12/2014 07:42	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141610638001	06/12/2014 08:57	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141610637001	06/11/2014 08:51	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141610638001	06/11/2014 12:00	James L Mertz	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14164162401B	06/13/2014 18:32	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-558-NBZ-SB-0.0-0.5MSD Soil
SSFL Phase 3

LL Sample # SW 7492865
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:30 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55800 SDG#: PH224-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/kg		ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	27		1.7	0.68	1
12969	Acenaphthylene	208-96-8	25		1.7	0.34	1
12969	Anthracene	120-12-7	25		1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	27		1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	26		1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	34		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	26		17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	13		1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	40		1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	36		18	6.1	1
12969	Di-n-butylphthalate	84-74-2	28		18	6.1	1
12969	Chrysene	218-01-9	29		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	16		1.7	0.68	1
12969	Diethylphthalate	84-66-2	27		18	6.1	1
12969	Dimethylphthalate	131-11-3	26		18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	42		18	6.1	1
12969	Fluoranthene	206-44-0	29		1.7	0.68	1
12969	Fluorene	86-73-7	28		1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	15		1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	27		1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	28		1.7	0.68	1
12969	Naphthalene	91-20-3	28		1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	19		1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	37		18	6.1	1
12969	Phenanthrene	85-01-8	28		1.7	0.68	1
12969	Pyrene	129-00-0	25		1.7	0.68	1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: N-Nitrosodimethylamine						
Herbicides	**SW-846 8151A**		ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	37	U	37	18	1
10401	Dalapon	75-99-0	88	J	92	45	1
10401	2,4-DB	94-82-6	20	U	20	20	1
10401	Dicamba	1918-00-9	8.6	J	12	4.1	1
10401	Dinoseb	88-85-7	24	U	24	9.2	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.						
10401	2,4-DP (Dichlorprop)	120-36-5	17	U	17	9.2	1
10401	MCPA	94-74-6	11,000		2,500	770	1
10401	MCPP (Mecoprop)	93-65-2	8,600		2,500	760	1
10401	2,4,5-T	93-76-5	1.7	U	1.7	0.84	1
10401	2,4,5-TP	93-72-1	1.7	U	1.7	0.76	1
	Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs	**SW-846 8081B**		ug/kg		ug/kg	ug/kg	
10590	Aldrin	309-00-2	2.8		0.84	0.17	1
10590	Alpha BHC	319-84-6	2.9		0.84	0.17	1
10590	Beta BHC	319-85-7	2.9		1.9	0.98	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-558-NBZ-SB-0.0-0.5MSD Soil
SSFL Phase 3

LL Sample # SW 7492865
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:30 by CN

Submitted: 06/10/2014 09:10
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CDM Federal Programs Corp.
3201 Jermantown Road
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Fairfax VA 22030

55800 SDG#: PH224-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Gamma BHC - Lindane	58-89-9	3.0		0.84	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.1	1
10590	p,p-DDD	72-54-8	6.8		1.7	0.34	1
10590	p,p-DDE	72-55-9	7.1		1.7	0.34	1
10590	p,p-DDT	50-29-3	8.6		1.7	0.36	1
10590	Delta BHC	319-86-8	3.1		0.84	0.46	1
10590	Dieldrin	60-57-1	6.3		1.7	0.34	1
10590	Endosulfan I	959-98-8	2.9		0.84	0.22	1
10590	Endosulfan II	33213-65-9	6.0		1.7	0.34	1
10590	Endosulfan Sulfate	1031-07-8	5.9		1.7	0.34	1
10590	Endrin	72-20-8	6.3		1.7	0.34	1
10590	Endrin Aldehyde	7421-93-4	6.0		1.7	0.34	1
10590	Endrin Ketone	53494-70-5	5.3		1.8	0.61	1
10590	Heptachlor	76-44-8	2.9		0.84	0.17	1
10590	Heptachlor Epoxide	1024-57-3	2.9		0.84	0.17	1
10590	Methoxychlor	72-43-5	34		6.8	1.7	1
10590	Mirex	2385-85-5	1.7	U	1.7	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	170		17	3.4	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.2	1
13099	PCB-1242	53469-21-9	17	U	17	4.2	1
13099	PCB-1248	12672-29-6	17	U	17	3.4	1
13099	PCB-1254	11097-69-1	17	U	17	4.5	1
13099	PCB-1260	11096-82-5	190		17	4.0	1
13099	PCB-1262	37324-23-5	17	U	17	3.4	1
13099	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	6.9		5.1	2.0	1
12952	EFH (C15-C20)	n.a.	12		5.1	2.0	1
12952	EFH (C21-C30)	n.a.	44		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	77		10	4.1	1
12952	EFH (C8-C11)	n.a.	4.9	J	5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	4.2	J	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.0	J	5.1	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	11		5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	13		10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	2.4	J	5.1	2.0	1

The reverse surrogate, capric acid, is present at <1%.
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.
A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-558-NBZ-SB-0.0-0.5MSD Soil
SSFL Phase 3

LL Sample # SW 7492865
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:30 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55800 SDG#: PH224-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	corrective action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. All results are reported from the second trial per client request. The first trial results are: EFH (C8-C11) 5.5 mg/kg EFH (C12-C14) 7.1 mg/kg EFH (C15-C20) 12 mg/kg EFH (C21-C30) 47 mg/kg EFH (C30-C40) 76 mg/kg					
Metals	**SW-846 6010C**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	17,900	39.6	7.14	1
06944	Antimony	7440-36-0	20.8	3.96	0.732	1
06935	Arsenic	7440-38-2	19.8	3.96	0.693	1
06946	Barium	7440-39-3	301	0.990	0.0327	1
06947	Beryllium	7440-41-7	5.76	0.990	0.0663	1
07914	Boron	7440-42-8	199	9.90	0.831	1
06949	Cadmium	7440-43-9	5.11	0.990	0.0752	1
01650	Calcium	7440-70-2	4,680	19.8	3.31	1
06951	Chromium	7440-47-3	39.8	2.97	0.158	1
06952	Cobalt	7440-48-4	52.9	0.990	0.0980	1
06953	Copper	7440-50-8	35.4	1.98	0.287	1
01654	Iron	7439-89-6	21,100	39.6	3.58	1
06955	Lead	7439-92-1	24.6	2.97	0.495	1
01656	Lithium	7439-93-2	133	4.0	0.34	1
01657	Magnesium	7439-95-4	4,810	9.90	1.65	1
06958	Manganese	7439-96-5	420	0.990	0.0821	1
06960	Molybdenum	7439-98-7	188	1.98	0.168	1
06961	Nickel	7440-02-0	62.9	1.98	0.129	1
10145	Phosphorus	7723-14-0	505	9.90	2.86	1
01662	Potassium	7440-09-7	5,570	99.0	8.25	1
01667	Sodium	7440-23-5	1,070	99.0	16.5	1
06969	Tin	7440-31-5	354	9.90	0.218	1
06970	Titanium	7440-32-6	1,330	0.990	0.168	1
06971	Vanadium	7440-62-2	89.1	0.990	0.129	1
06972	Zinc	7440-66-6	110	3.96	0.198	1
10146	Zirconium	7440-67-7	94.2	4.95	0.831	1
	SW-846 6020A		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.60	0.396	0.0990	2
06142	Silver	7440-22-4	12.3	0.198	0.0257	2
06144	Strontium	7440-24-6	44.4	0.396	0.0673	2
06145	Thallium	7440-28-0	0.801	0.198	0.0297	2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.191	0.0164	0.0098	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	1.9	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-558-NBZ-SB-0.0-0.5MSD Soil
SSFL Phase 3

LL Sample # SW 7492865
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:30 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55800 SDG#: PH224-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	19.7		1.01	0.101	1
11031	12378-PeCDD	40321-76-4	104	B	5.07	0.0958	1
11031	123478-HxCDD	39227-28-6	101	B	5.07	0.0717	1
11031	123678-HxCDD	57653-85-7	99.7	B	5.07	0.0738	1
11031	123789-HxCDD	19408-74-3	101	B	5.07	0.0669	1
11031	1234678-HpCDD	35822-46-9	103	B	5.07	0.0782	1
11031	OCDD	3268-87-9	234	B	10.1	0.0525	1
11031	2378-TCDF	51207-31-9	21.1		1.01	0.128	1
11031	12378-PeCDF	57117-41-6	100	B	5.07	0.0656	1
11031	23478-PeCDF	57117-31-4	101	B	5.07	0.0624	1
11031	123478-HxCDF	70648-26-9	103	B	5.07	0.112	1
11031	123678-HxCDF	57117-44-9	102	B	5.07	0.100	1
11031	123789-HxCDF	72918-21-9	101	B	5.07	0.115	1
11031	234678-HxCDF	60851-34-5	103	B	5.07	0.104	1
11031	1234678-HpCDF	67562-39-4	98.6	B	5.07	0.0640	1
11031	1234789-HpCDF	55673-89-7	100	B	5.07	0.102	1
11031	OCDF	39001-02-0	203	B	10.1	0.0599	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	79	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	87	32 - 141
13C12-123678-HxCDD	89	28 - 130
13C12-123789-HxCDD	92	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	80	17 - 157
13C12-2378-TCDF	81	24 - 169
13C12-12378-PeCDF	93	24 - 185
13C12-23478-PeCDF	90	21 - 178
13C12-123478-HxCDF	86	26 - 152
13C12-123678-HxCDF	97	26 - 123
13C12-234678-HxCDF	90	28 - 136
13C12-123789-HxCDF	87	29 - 147
13C12-1234678-HpCDF	108	28 - 143
13C12-1234789-HpCDF	78	26 - 138
13C12-OCDF	71	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-558-NBZ-SB-0.0-0.5MSD Soil
SSFL Phase 3

LL Sample # SW 7492865
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:30 by CN

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55800 SDG#: PH224-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
S	*Saturation of detection signal*					

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-558-NBZ-SB-0.0-0.5MSD Soil
SSFL Phase 3

LL Sample # SW 7492865
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:30 by CN

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55800 SDG#: PH224-01MSD

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14163SLB026	06/17/2014 09:51	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14163SLB026	06/12/2014 17:00	JoElla L Rice	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	141620024A	06/13/2014 05:57	Lisa A Reinert	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141620028A	06/16/2014 18:48	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141610021A	06/11/2014 23:26	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141610021A	06/11/2014 05:20	Roman Kuropatkin	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141620028A	06/12/2014 10:00	William H Saadeh	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	141620024A	06/12/2014 08:30	David S Schrum	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141670004A	06/18/2014 01:36	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141670005A	06/19/2014 20:27	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141670005A	06/16/2014 15:15	Kelli M Barto	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141670004A	06/16/2014 15:15	Kelli M Barto	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14163002	06/13/2014 23:35	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14163002	06/12/2014 12:30	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-558-NBZ-SB-0.0-0.5MSD Soil
SSFL Phase 3

LL Sample # SW 7492865
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:30 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55800 SDG#: PH224-01MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06961	Nickel	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	141610637001	06/12/2014 04:56	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	141610637001B	06/12/2014 07:45	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141610637001A	06/12/2014 07:45	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141610637001A	06/12/2014 07:45	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141610637001A	06/12/2014 07:45	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141610638001	06/12/2014 09:03	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141610637001	06/11/2014 08:51	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141610638001	06/11/2014 12:00	James L Mertz	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14164162401B	06/13/2014 18:32	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-558-NBZ-SB-0.0-0.5DUP Soil
SSFL Phase 3

LL Sample # SW 7492866
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:30 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55800 SDG#: PH224-01DUP

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,300		40.4	7.28	1
06944	Antimony	7440-36-0	4.04	U	4.04	0.747	1
06935	Arsenic	7440-38-2	4.62		4.04	0.706	1
06946	Barium	7440-39-3	77.3		1.01	0.0333	1
06947	Beryllium	7440-41-7	0.569	J	1.01	0.0676	1
07914	Boron	7440-42-8	4.26	J	10.1	0.848	1
06949	Cadmium	7440-43-9	0.181	J	1.01	0.0767	1
01650	Calcium	7440-70-2	2,920		20.2	3.37	1
06951	Chromium	7440-47-3	19.8		3.03	0.161	1
06952	Cobalt	7440-48-4	6.65		1.01	0.0999	1
06953	Copper	7440-50-8	8.47		2.02	0.293	1
01654	Iron	7439-89-6	24,300		40.4	3.65	1
06955	Lead	7439-92-1	4.15		3.03	0.505	1
01656	Lithium	7439-93-2	29.3		4.0	0.34	1
01657	Magnesium	7439-95-4	6,220		10.1	1.69	1
06958	Manganese	7439-96-5	378		1.01	0.0838	1
06960	Molybdenum	7439-98-7	0.438	J	2.02	0.172	1
06961	Nickel	7440-02-0	11.2		2.02	0.131	1
10145	Phosphorus	7723-14-0	499		10.1	2.92	1
01662	Potassium	7440-09-7	2,440		101	8.42	1
01667	Sodium	7440-23-5	74.3	J	101	16.9	1
06969	Tin	7440-31-5	2.89	J	10.1	0.222	1
06970	Titanium	7440-32-6	1,120		1.01	0.172	1
06971	Vanadium	7440-62-2	41.1		1.01	0.131	1
06972	Zinc	7440-66-6	55.6		4.04	0.202	1
10146	Zirconium	7440-67-7	4.09	J	5.05	0.848	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.335	J	0.404	0.101	2
06142	Silver	7440-22-4	0.202	U	0.202	0.0262	2
06144	Strontium	7440-24-6	11.2		0.404	0.0686	2
06145	Thallium	7440-28-0	0.266		0.202	0.0303	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0164	U	0.0164	0.0099	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.32		0.0100	0.0100	1
	The pH was measured in water at 22.6 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	1.9		0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	2.0		0.10	0.10	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-558-NBZ-SB-0.0-0.5DUP Soil
SSFL Phase 3

LL Sample # SW 7492866
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:30 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55800 SDG#: PH224-01DUP

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	141610637001	06/12/2014 04:48	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	141610637001B	06/12/2014 07:40	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141610637001A	06/12/2014 07:40	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141610637001A	06/12/2014 07:40	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141610637001A	06/12/2014 07:40	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141610638001	06/12/2014 08:55	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141610637001	06/11/2014 08:51	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141610638001	06/11/2014 12:00	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14161039403A	06/10/2014 22:25	Luz M Groff	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14164162401B	06/13/2014 18:32	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	14164162401B	06/13/2014 18:32	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-559-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7492867
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 09:25 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55900 SDG#: PH224-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	2.2		1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	3.3		1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	33		18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	1.0	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	59		18	6.1	1
12969	Fluoranthene	206-44-0	0.80	J	1.7	0.68	1
12969	Fluorene	86-73-7	1.2	J	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.68	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.68	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.68	1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: chrysene						
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	37	U	37	12	1
10401	Dalapon	75-99-0	91	U	91	45	1
10401	2,4-DB	94-82-6	16	J	17	6.3	1
10401	Dicamba	1918-00-9	12	U	12	4.1	1
10401	Dinoseb	88-85-7	24	U	24	9.1	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.						
10401	2,4-DP (Dichlorprop)	120-36-5	17	U	17	9.1	1
10401	MCPA	94-74-6	2,500	U	2,500	770	1
10401	MCPP (Mecoprop)	93-65-2	2,500	U	2,500	760	1
10401	2,4,5-T	93-76-5	1.7	U	1.7	0.83	1
10401	2,4,5-TP	93-72-1	1.7	U	1.7	0.76	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-559-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7492867
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 09:25 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55900 SDG#: PH224-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.1	1
13099	PCB-1242	53469-21-9	17	U	17	4.1	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	17	U	17	4.4	1
13099	PCB-1260	11096-82-5	17	U	17	3.9	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	4.4	J	5.1	2.0	1
12952	EFH (C30-C40)	n.a.	11		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
	The reverse surrogate, capric acid, is present at <1%.						
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	11,500		40.6	7.31	1
06944	Antimony	7440-36-0	4.06	U	4.06	0.751	1
06935	Arsenic	7440-38-2	3.52	J	4.06	0.710	1
06946	Barium	7440-39-3	75.1		1.01	0.0335	1
06947	Beryllium	7440-41-7	0.504	J	1.01	0.0680	1
07914	Boron	7440-42-8	6.92	J	10.1	0.852	1
06949	Cadmium	7440-43-9	0.220	J	1.01	0.0771	1
01650	Calcium	7440-70-2	3,110		20.3	3.39	1
06951	Chromium	7440-47-3	17.1		3.04	0.162	1
06952	Cobalt	7440-48-4	5.16		1.01	0.100	1
06953	Copper	7440-50-8	8.15		2.03	0.294	1
01654	Iron	7439-89-6	22,800		40.6	3.67	1
06955	Lead	7439-92-1	5.83		3.04	0.507	1
01656	Lithium	7439-93-2	29.3		4.1	0.34	1
01657	Magnesium	7439-95-4	5,750		10.1	1.69	1
06958	Manganese	7439-96-5	312		1.01	0.0842	1
06960	Molybdenum	7439-98-7	0.287	J	2.03	0.172	1
06961	Nickel	7440-02-0	10.4		2.03	0.132	1
10145	Phosphorus	7723-14-0	470		10.1	2.93	1
01662	Potassium	7440-09-7	2,660		101	8.46	1
01667	Sodium	7440-23-5	91.5	J	101	16.9	1
06969	Tin	7440-31-5	2.86	J	10.1	0.223	1
06970	Titanium	7440-32-6	1,090		1.01	0.172	1
06971	Vanadium	7440-62-2	35.7		1.01	0.132	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-559-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7492867
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 09:25 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55900 SDG#: PH224-02

CAT No.	Analysis Name		CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals		**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
06972	Zinc		7440-66-6	56.1		4.06	0.203	1
10146	Zirconium		7440-67-7	3.45	J	5.07	0.852	1
		SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium		7782-49-2	0.344	J	0.406	0.101	2
06142	Silver		7440-22-4	0.0329	J	0.203	0.0264	2
06144	Strontium		7440-24-6	14.3		0.406	0.0690	2
06145	Thallium		7440-28-0	0.248		0.203	0.0304	2
		SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A		7439-97-6	0.0164	U	0.0164	0.0099	1
Wet Chemistry		**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D		n.a.	6.39		0.0100	0.0100	1
	The pH was measured in water at 22.6 C.							
Wet Chemistry		**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3		n.a.	1.4		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.							

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-559-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7492867
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 09:25 by CN

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55900 SDG#: PH224-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.01	U	1.01	0.0606	1
11031	12378-PeCDD	40321-76-4	0.0817	JB	5.05	0.0477	1
11031	123478-HxCDD	39227-28-6	0.0786	JBQ	5.05	0.0386	1
11031	123678-HxCDD	57653-85-7	0.195	JB	5.05	0.0402	1
11031	123789-HxCDD	19408-74-3	0.180	JBQ	5.05	0.0366	1
11031	1234678-HpCDD	35822-46-9	2.77	JB	5.05	0.0353	1
11031	OCDD	3268-87-9	24.5	B	10.1	0.0316	1
11031	2378-TCDF	51207-31-9	0.0786	JQ	1.01	0.0712	1
11031	12378-PeCDF	57117-41-6	0.185	JB	5.05	0.0320	1
11031	23478-PeCDF	57117-31-4	0.178	JBQ	5.05	0.0309	1
11031	123478-HxCDF	70648-26-9	0.172	JBQ	5.05	0.0399	1
11031	123678-HxCDF	57117-44-9	0.212	JB	5.05	0.0356	1
11031	123789-HxCDF	72918-21-9	0.119	JBQ	5.05	0.0425	1
11031	234678-HxCDF	60851-34-5	0.161	JBQ	5.05	0.0379	1
11031	1234678-HpCDF	67562-39-4	0.558	JB	5.05	0.0269	1
11031	1234789-HpCDF	55673-89-7	0.0830	JB	5.05	0.0410	1
11031	OCDF	39001-02-0	1.04	JBQ	10.1	0.0385	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.169				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	83	25 - 164
13C12-12378-PeCDD	88	25 - 181
13C12-123478-HxCDD	86	32 - 141
13C12-123678-HxCDD	89	28 - 130
13C12-123789-HxCDD	91	28 - 130
13C12-1234678-HpCDD	83	23 - 140
13C12-OCDD	76	17 - 157
13C12-2378-TCDF	86	24 - 169
13C12-12378-PeCDF	95	24 - 185
13C12-23478-PeCDF	91	21 - 178
13C12-123478-HxCDF	85	26 - 152
13C12-123678-HxCDF	95	26 - 123
13C12-234678-HxCDF	89	28 - 136
13C12-123789-HxCDF	86	29 - 147
13C12-1234678-HpCDF	102	28 - 143
13C12-1234789-HpCDF	77	26 - 138
13C12-OCDF	68	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-559-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7492867
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 09:25 by CN

Submitted: 06/10/2014 09:10
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55900 SDG#: PH224-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-559-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7492867
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 09:25 by CN

Submitted: 06/10/2014 09:10
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55900 SDG#: PH224-02

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14169SLA026	06/24/2014 02:15	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	14169SLA026	06/19/2014 10:30	Anna E Stager	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	141620024A	06/13/2014 06:23	Lisa A Reinert	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141610021A	06/11/2014 23:44	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141610021A	06/11/2014 05:20	Roman Kuropatkin	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	141620024A	06/12/2014 08:30	David S Schrum	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141670004A	06/17/2014 19:23	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141670005A	06/19/2014 20:48	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141670005A	06/16/2014 15:15	Kelli M Barto	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141670004A	06/16/2014 15:15	Kelli M Barto	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14163002	06/13/2014 20:45	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14163002	06/12/2014 12:30	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-559-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7492867
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 09:25 by CN

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55900 SDG#: PH224-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	141610637001	06/12/2014 05:27	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	141610637001B	06/12/2014 08:03	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141610637001A	06/12/2014 08:03	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141610637001A	06/12/2014 08:03	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141610637001A	06/12/2014 08:03	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141610638001	06/12/2014 09:05	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141610637001	06/11/2014 08:51	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141610638001	06/11/2014 12:00	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14161039403A	06/10/2014 22:25	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14164162401B	06/13/2014 18:32	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-632-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7492868
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 10:50 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63200 SDG#: PH224-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.6		5.1	2.0	1
12952	EFH (C21-C30)	n.a.	41		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	63		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	4.2	J	5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	4.3	J	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.0	1

The reverse surrogate, capric acid, is present at <1%.
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.
A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The recovery for the sample surrogate(s) is outside the QC acceptance limits. The following corrective action was taken:
The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. All results are reported from the second trial per client request.
The first trial results are:
EFH (C8-C11) non-detect
EFH (C12-C14) non-detect
EFH (C15-C20) 3.5 mg/kg
EFH (C21-C30) 24 mg/kg
EFH (C30-C40) 41 mg/kg

Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.9		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141670004A	06/18/2014 03:46	Heather E Williams	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-632-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7492868
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 10:50 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63200 SDG#: PH224-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141670005A	06/19/2014 21:10	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141670005A	06/16/2014 15:15	Kelli M Barto	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141670004A	06/16/2014 15:15	Kelli M Barto	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14164162401B	06/13/2014 18:32	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-858-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7492869
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:35 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

85800 SDG#: PH224-04*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	0.65	J	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	0.97	J	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.5	J	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	3.0		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	0.84	J	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	15		1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	32		18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	3.1		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20		18	6.1	1
12969	Fluoranthene	206-44-0	3.4		1.7	0.68	1
12969	Fluorene	86-73-7	1.5	J	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.76	J	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.8		1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	2.5		1.7	0.68	1
12969	Naphthalene	91-20-3	5.9		1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	2.8		1.7	0.68	1
12969	Pyrene	129-00-0	3.1		1.7	0.68	1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: N-Nitrosodimethylamine						
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	180	U	180	61	5
10401	Dalapon	75-99-0	460	U	460	220	5
10401	2,4-DB	94-82-6	100		87	32	5
10401	Dicamba	1918-00-9	61	U	61	20	5
10401	Dinoseb	88-85-7	120	U	120	46	5
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.						
10401	2,4-DP (Dichlorprop)	120-36-5	87	U	87	46	5
10401	MCPA	94-74-6	13,000	U	13,000	3,900	5
10401	MCPP (Mecoprop)	93-65-2	13,000	U	13,000	3,800	5
10401	2,4,5-T	93-76-5	8.7	U	8.7	4.2	5
10401	2,4,5-TP	93-72-1	8.7	U	8.7	3.8	5
	Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.84	U	0.84	0.17	1
10590	Alpha BHC	319-84-6	0.84	U	0.84	0.17	1
10590	Beta BHC	319-85-7	1.9	U	1.9	0.98	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-858-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7492869
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:35 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

85800 SDG#: PH224-04*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Gamma BHC - Lindane	58-89-9	0.84	U	0.84	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.1	1
10590	p,p-DDD	72-54-8	0.58	J	1.7	0.34	1
10590	p,p-DDE	72-55-9	1.2	J	1.7	0.34	1
10590	p,p-DDT	50-29-3	1.9		1.7	0.36	1
10590	Delta BHC	319-86-8	0.84	U	0.84	0.46	1
10590	Dieldrin	60-57-1	1.7	U	1.7	0.34	1
10590	Endosulfan I	959-98-8	0.84	U	0.84	0.22	1
10590	Endosulfan II	33213-65-9	1.7	U	1.7	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.60	1
10590	Endrin	72-20-8	1.7	U	1.7	0.53	1
10590	Endrin Aldehyde	7421-93-4	0.87	J	1.7	0.34	1
10590	Endrin Ketone	53494-70-5	1.8	U	1.8	0.61	1
10590	Heptachlor	76-44-8	0.84	U	0.84	0.17	1
10590	Heptachlor Epoxide	1024-57-3	0.84	U	0.84	0.17	1
10590	Methoxychlor	72-43-5	6.8	U	6.8	1.7	1
10590	Mirex	2385-85-5	0.53	J	1.7	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1
	Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.2	1
13099	PCB-1242	53469-21-9	17	U	17	4.2	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	17	U	17	4.5	1
13099	PCB-1260	11096-82-5	17	U	17	4.0	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.3		5.1	2.0	1
12952	EFH (C21-C30)	n.a.	42		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	66		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.0	J	5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	5.4	J	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
	The reverse surrogate, capric acid, is present at <1%.						
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
	A target analyte(s) in the continuing calibration verification						

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-858-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7492869
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:35 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

85800 SDG#: PH224-04*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	standard is outside the QC acceptance limits. The following corrective action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. All results are reported from the second trial per client request. The first trial results are: EFH (C8-C11) non-detect EFH (C12-C14) non-detect EFH (C15-C20) 6.7 mg/kg EFH (C21-C30) 50 mg/kg EFH (C30-C40) 73 mg/kg						
Metals		**SW-846 6010C**	**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,600		39.6	7.14	1
06944	Antimony	7440-36-0	3.96	U	3.96	0.733	1
06935	Arsenic	7440-38-2	4.19		3.96	0.693	1
06946	Barium	7440-39-3	111		0.991	0.0327	1
06947	Beryllium	7440-41-7	0.674	J	0.991	0.0664	1
07914	Boron	7440-42-8	9.83	J	9.91	0.832	1
06949	Cadmium	7440-43-9	0.382	J	0.991	0.0753	1
01650	Calcium	7440-70-2	4,790		19.8	3.31	1
06951	Chromium	7440-47-3	19.5		2.97	0.159	1
06952	Cobalt	7440-48-4	5.77		0.991	0.0981	1
06953	Copper	7440-50-8	10.4		1.98	0.287	1
01654	Iron	7439-89-6	22,500		39.6	3.59	1
06955	Lead	7439-92-1	12.5		2.97	0.495	1
01656	Lithium	7439-93-2	34.0		4.0	0.34	1
01657	Magnesium	7439-95-4	4,760		9.91	1.65	1
06958	Manganese	7439-96-5	403		0.991	0.0822	1
06960	Molybdenum	7439-98-7	0.453	J	1.98	0.168	1
06961	Nickel	7440-02-0	14.8		1.98	0.129	1
10145	Phosphorus	7723-14-0	480		9.91	2.86	1
01662	Potassium	7440-09-7	4,500		99.1	8.26	1
01667	Sodium	7440-23-5	81.5	J	99.1	16.5	1
06969	Tin	7440-31-5	2.78	J	9.91	0.218	1
06970	Titanium	7440-32-6	1,060		0.991	0.168	1
06971	Vanadium	7440-62-2	37.1		0.991	0.129	1
06972	Zinc	7440-66-6	70.8		3.96	0.198	1
10146	Zirconium	7440-67-7	3.67	J	4.95	0.832	1
		SW-846 6020A	**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.361	J	0.396	0.0991	2
06142	Silver	7440-22-4	0.0691	J	0.198	0.0258	2
06144	Strontium	7440-24-6	32.9		0.396	0.0674	2
06145	Thallium	7440-28-0	0.297		0.198	0.0297	2
		SW-846 7471B	**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0280		0.0165	0.0099	1
Wet Chemistry		**SW-846 9045D modified**	**Std. Units**		**Std. Units**	**Std. Units**	

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-858-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7492869
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:35 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

85800 SDG#: PH224-04*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 22.7 C.	n.a.	6.26	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	2.0	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-858-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7492869
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:35 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

85800 SDG#: PH224-04*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0957	JQ	0.984	0.0774	1
11031	12378-PeCDD	40321-76-4	0.297	JBQ	4.92	0.0705	1
11031	123478-HxCDD	39227-28-6	0.255	JBQ	4.92	0.0656	1
11031	123678-HxCDD	57653-85-7	0.442	JBQ	4.92	0.0672	1
11031	123789-HxCDD	19408-74-3	0.448	JBQ	4.92	0.0603	1
11031	1234678-HpCDD	35822-46-9	8.57	B	4.92	0.0506	1
11031	OCDD	3268-87-9	70.2	B	9.84	0.0353	1
11031	2378-TCDF	51207-31-9	0.135	J	0.984	0.112	1
11031	12378-PeCDF	57117-41-6	0.360	JBQ	4.92	0.0454	1
11031	23478-PeCDF	57117-31-4	0.537	JBQ	4.92	0.0484	1
11031	123478-HxCDF	70648-26-9	0.322	JBQ	4.92	0.0530	1
11031	123678-HxCDF	57117-44-9	0.372	JB	4.92	0.0478	1
11031	123789-HxCDF	72918-21-9	0.230	JB	4.92	0.0562	1
11031	234678-HxCDF	60851-34-5	0.347	JB	4.92	0.0514	1
11031	1234678-HpCDF	67562-39-4	1.69	JB	4.92	0.0335	1
11031	1234789-HpCDF	55673-89-7	0.223	JB	4.92	0.0551	1
11031	OCDF	39001-02-0	3.67	JB	9.84	0.0523	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.235				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	82	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	88	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	76	17 - 157
13C12-2378-TCDF	83	24 - 169
13C12-12378-PeCDF	94	24 - 185
13C12-23478-PeCDF	86	21 - 178
13C12-123478-HxCDF	81	26 - 152
13C12-123678-HxCDF	92	26 - 123
13C12-234678-HxCDF	85	28 - 136
13C12-123789-HxCDF	83	29 - 147
13C12-1234678-HpCDF	102	28 - 143
13C12-1234789-HpCDF	71	26 - 138
13C12-OCDF	63	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-858-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7492869
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:35 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

85800 SDG#: PH224-04*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-858-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7492869
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:35 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

85800 SDG#: PH224-04*

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14163SLB026	06/17/2014 16:13	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14163SLB026	06/12/2014 17:00	JoElla L Rice	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	141620024A	06/13/2014 21:13	Lisa A Reinert	5
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141620028A	06/16/2014 19:02	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141610021A	06/12/2014 00:03	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141610021A	06/11/2014 05:20	Roman Kuropatkin	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141620028A	06/12/2014 10:00	William H Saadeh	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	141620024A	06/12/2014 08:30	David S Schrum	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141670004A	06/18/2014 03:03	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141670005A	06/19/2014 21:31	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141670005A	06/16/2014 15:15	Kelli M Barto	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141670004A	06/16/2014 15:15	Kelli M Barto	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14163002	06/13/2014 21:41	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14163002	06/12/2014 12:30	Ginelle L McQuaid	1
01643	Aluminum	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-858-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7492869
LL Group # 1480552
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/09/2014 08:35 by CN

Submitted: 06/10/2014 09:10
Reported: 07/07/2014 12:17

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

85800 SDG#: PH224-04*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06961	Nickel	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	141610637001	06/12/2014 05:31	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	141610637001B	06/12/2014 08:05	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141610637001A	06/12/2014 08:05	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141610637001A	06/12/2014 08:05	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141610637001A	06/12/2014 08:05	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141610638001	06/12/2014 09:07	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141610637001	06/11/2014 08:51	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141610638001	06/11/2014 12:00	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14161039403A	06/10/2014 22:25	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14164162401B	06/13/2014 18:32	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480552
Reported: 07/07/14 at 12:17 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14163SLB026	Sample number(s): 7492863-7492865,7492869									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	103		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	94		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	96		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	100		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	94		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	102		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	88		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	97		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	99		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	89		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	90		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	99		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	101		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	97		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	96		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	89		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	99		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	103		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	97		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	95		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	97		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	94		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	68*		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	90		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	93		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	89		80-119		
Batch number: 14169SLA026	Sample number(s): 7492867									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	111		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	105		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	105		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	113		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	104		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	112		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	97		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	100		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	109		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	100		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	100		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	114*		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	103		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	107		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	107		85-122		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480552
Reported: 07/07/14 at 12:17 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	101		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	114		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	115		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	100		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	106		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	108		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	104		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	109		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	100		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	105		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	103		80-119		
Batch number: 141620024A	Sample number(s): 7492863-7492865,7492867,7492869									
2,4-D	36	U	36.	12	ug/kg	109		68-160		
Dalapon	90	U	90.	44	ug/kg	84		13-128		
2,4-DB	17	U	17.	6.2	ug/kg	109		73-159		
Dicamba	12	U	12.	4.0	ug/kg	100		64-128		
Dinoseb	24	U	24.	9.0	ug/kg	15		10-56		
2,4-DP (Dichlorprop)	17	U	17.	9.0	ug/kg	132		86-178		
MCPA	2,500 U		2,500.	760	ug/kg	93		61-123		
MCPP (Mecoprop)	2,500 U		2,500.	750	ug/kg	91		59-128		
2,4,5-T	1.7	U	1.7	0.82	ug/kg	114		69-157		
2,4,5-TP	1.7	U	1.7	0.75	ug/kg	114		78-146		
Batch number: 141610021A	Sample number(s): 7492863-7492865,7492867,7492869									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	87	89	36-106	3	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	106		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	110		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141620028A	Sample number(s): 7492863-7492865,7492869									
Aldrin	0.83	U	0.83	0.17	ug/kg	90		60-118		
Alpha BHC	0.83	U	0.83	0.17	ug/kg	97		55-135		
Beta BHC	1.9	U	1.9	0.96	ug/kg	96		67-129		
Gamma BHC - Lindane	0.83	U	0.83	0.17	ug/kg	99		56-138		
Chlordane	17	U	17.	4.0	ug/kg					
p,p-DDD	1.7	U	1.7	0.33	ug/kg	104		69-141		
p,p-DDE	1.7	U	1.7	0.33	ug/kg	102		69-130		
p,p-DDT	1.7	U	1.7	0.35	ug/kg	102		64-139		
Delta BHC	0.83	U	0.83	0.45	ug/kg	103		59-137		
Dieldrin	1.7	U	1.7	0.33	ug/kg	100		68-134		
Endosulfan I	0.83	U	0.83	0.22	ug/kg	94		56-128		
Endosulfan II	1.7	U	1.7	0.33	ug/kg	102		68-128		
Endosulfan Sulfate	1.7	U	1.7	0.33	ug/kg	102		71-132		
Endrin	1.7	U	1.7	0.33	ug/kg	97		70-132		
Endrin Aldehyde	1.7	U	1.7	0.33	ug/kg	89		61-125		

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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480552
Reported: 07/07/14 at 12:17 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Endrin Ketone	1.8	U	1.8	0.60	ug/kg	97		69-126		
Heptachlor	0.83	U	0.83	0.17	ug/kg	93		57-130		
Heptachlor Epoxide	0.83	U	0.83	0.17	ug/kg	96		69-125		
Methoxychlor	6.7	U	6.7	1.7	ug/kg	102		67-136		
Mirex	1.7	U	1.7	0.35	ug/kg					
Toxaphene	33	U	33.	14	ug/kg					
Batch number: 141670004A	Sample number(s): 7492863-7492865,7492867-7492869									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	94		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	96		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	94		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	91		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	77		60-115		
Batch number: 141670005A	Sample number(s): 7492863-7492865,7492867-7492869									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	68*		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	71*		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	70*		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	72		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	52*		60-115		
Batch number: 141610637001	Sample number(s): 7492863-7492867,7492869									
Aluminum	40.0	U	40.0	7.21	mg/kg	106		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	107		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	111		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	104		80-120		
Boron	10.0	U	10.0	0.840	mg/kg	97		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	106		80-120		
Calcium	20.0	U	20.0	3.34	mg/kg	104		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	101		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	107		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	105		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	105		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	107		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	104		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	103		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	104		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	110		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	106		80-120		
Potassium	100 U		100.	8.34	mg/kg	103		80-120		
Sodium	100 U		100.	16.7	mg/kg	102		80-120		
Tin	1.54	J	10.0	0.220	mg/kg	103		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	103		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	105		80-120		
Zinc	0.790	J	4.00	0.200	mg/kg	105		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	104		80-120		
Batch number: 141610637001A	Sample number(s): 7492863-7492867,7492869									
Silver	0.200	U	0.200	0.0260	mg/kg	105		80-120		
Strontium	0.400	U	0.400	0.0680	mg/kg	105		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	107		80-120		

*- Outside of specification
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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480552
Reported: 07/07/14 at 12:17 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 141610637001B	Sample number(s): 7492863-7492867,7492869									
Selenium	0.400	U	0.400	0.100	mg/kg	106		80-120		
Batch number: 141610638001	Sample number(s): 7492863-7492867,7492869									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	94		85-120		
Batch number: 14161039403A	Sample number(s): 7492863,7492866-7492867,7492869									
15a pH by 9045D						100		95-105		
Batch number: 14164162401B	Sample number(s): 7492863-7492869									
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14163002	Sample number(s): 7492863-7492865,7492867,7492869									
2378-TCDD	1.00	U	1.00	0.0740	ng/kg	99		67-158		
12378-PeCDD	0.0467	J	5.00	0.0407	ng/kg	99		70-142		
123478-HxCDD	0.0257	J	5.00	0.0233	ng/kg	101		70-164		
123678-HxCDD	0.0407	J	5.00	0.0241	ng/kg	98		76-134		
123789-HxCDD	0.0354	J	5.00	0.0233	ng/kg	100		64-162		
1234678-HpCDD	0.162	J	5.00	0.0251	ng/kg	96		70-140		
OCDD	0.275	J	10.0	0.0276	ng/kg	93		78-144		
2378-TCDF	1.00	U	1.00	0.0783	ng/kg	105		75-158		
12378-PeCDF	0.208	J	5.00	0.0323	ng/kg	99		80-134		
23478-PeCDF	0.226	J	5.00	0.0347	ng/kg	100		68-160		
123478-HxCDF	0.120	J	5.00	0.0453	ng/kg	102		72-134		
123678-HxCDF	0.182	J	5.00	0.0377	ng/kg	100		84-130		
123789-HxCDF	0.124	J	5.00	0.0523	ng/kg	100		78-130		
234678-HxCDF	0.176	J	5.00	0.0405	ng/kg	101		70-156		
1234678-HpCDF	0.0880	J	5.00	0.0101	ng/kg	97		82-122		
1234789-HpCDF	0.131	J	5.00	0.0179	ng/kg	99		78-138		
OCDF	0.207	J	10.0	0.0485	ng/kg	99		63-170		
TEQ WHO 2005 - EDLx0.0	0.0918				ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14163SLB026	Sample number(s): 7492863-7492865,7492869 UNSPK: 7492863								
Acenaphthene	88	80	48-127	10	30				
Acenaphthylene	82	75	60-128	10	30				
Anthracene	83	75	52-126	11	30				

*- Outside of specification
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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480552
Reported: 07/07/14 at 12:17 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Benzo(a)anthracene	86	79	44-143	8	30				
Benzo(a)pyrene	82	74	49-137	10	30				
Benzo(b)fluoranthene	105	95	26-142	10	30				
Benzo(e)pyrene	84	77	63-111	9	30				
Benzo(g,h,i)perylene	42	38	33-141	11	30				
Benzo(k)fluoranthene	102	97	49-144	4	30				
Butylbenzylphthalate	101	81	64-156	18	30				
Di-n-butylphthalate	87	81	52-147	7	30				
Chrysene	88	80	43-141	9	30				
Dibenz(a,h)anthracene	51	46	25-145	9	30				
Diethylphthalate	87	79	66-140	9	30				
Dimethylphthalate	86	78	70-123	10	30				
Bis(2-Ethylhexyl)phthalate	51	64	48-164	11	30				
Fluoranthene	89	82	38-153	8	30				
Fluorene	89	82	57-130	9	30				
Indeno(1,2,3-cd)pyrene	49	44	26-139	10	30				
1-Methylnaphthalene	85	77	59-139	9	30				
2-Methylnaphthalene	87	79	46-147	10	30				
Naphthalene	86	78	52-136	9	30				
N-Nitrosodimethylamine	61	55	39-134	10	30				
Di-n-octylphthalate	115	109	52-162	6	30				
Phenanthrene	85	77	50-137	10	30				
Pyrene	75	69	26-143	8	30				
Batch number: 14169SLA026	Sample number(s): 7492867 UNSPK: P501188								
Acenaphthene	90	91	48-127	3	30				
Acenaphthylene	90	90	60-128	1	30				
Anthracene	92	93	52-126	2	30				
Benzo(a)anthracene	98	103	44-143	7	30				
Benzo(a)pyrene	86	88	49-137	3	30				
Benzo(b)fluoranthene	112	121	26-142	8	30				
Benzo(e)pyrene	87	89	63-111	4	30				
Benzo(g,h,i)perylene	47	43	33-141	8	30				
Benzo(k)fluoranthene	96	98	49-144	3	30				
Butylbenzylphthalate	95	92	64-156	3	30				
Di-n-butylphthalate	91	91	52-147	1	30				
Chrysene	94	104	43-141	11	30				
Dibenz(a,h)anthracene	57	54	25-145	5	30				
Diethylphthalate	89	90	66-140	2	30				
Dimethylphthalate	89	89	70-123	1	30				
Bis(2-Ethylhexyl)phthalate	96	408*	48-164	125*	30				
Fluoranthene	103	129	38-153	23	30				
Fluorene	93	94	57-130	3	30				
Indeno(1,2,3-cd)pyrene	54	51	26-139	5	30				
1-Methylnaphthalene	90	91	59-139	2	30				
2-Methylnaphthalene	92	94	46-147	4	30				
Naphthalene	88	90	52-136	4	30				
N-Nitrosodimethylamine	86	91	39-134	7	30				
Di-n-octylphthalate	126	132	52-162	6	30				
Phenanthrene	92	106	50-137	15	30				
Pyrene	88	109	26-143	23	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480552
Reported: 07/07/14 at 12:17 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 141620024A	Sample number(s): 7492863-7492865,7492867,7492869 UNSPK: 7492863								
2,4-D	128	0*	42-143	200*	35				
Dalapon	37	41	16-98	9	50				
2,4-DB	0*	0*	10-179	0	50				
Dicamba	106	101	47-150	5	50				
Dinoseb	0*	0*	10-115	0	35				
2,4-DP (Dichlorprop)	151	0*	32-171	200*	50				
MCPA	156*	124	54-138	23	50				
MCPP (Mecoprop)	101	101	46-138	0	50				
2,4,5-T	134	0*	12-172	200*	35				
2,4,5-TP	122	0*	65-156	200*	35				
Batch number: 141610021A	Sample number(s): 7492863-7492865,7492867,7492869 UNSPK: 7492863								
PCB-1016	108	101	41-135	6	50				
PCB-1260	114	110	40-134	4	50				
Batch number: 141620028A	Sample number(s): 7492863-7492865,7492869 UNSPK: 7492863								
Aldrin	86	83	16-126	4	50				
Alpha BHC	85	82	14-140	4	50				
Beta BHC	87	85	42-133	3	50				
Gamma BHC - Lindane	88	85	30-137	4	50				
p,p-DDD	94	92	43-149	3	50				
p,p-DDE	91	89	35-152	2	50				
p,p-DDT	95	97	12-193	1	50				
Delta BHC	94	91	13-153	4	50				
Dieldrin	90	88	41-153	3	50				
Endosulfan I	85	82	26-146	4	50				
Endosulfan II	88	88	34-141	1	50				
Endosulfan Sulfate	91	87	10-181	4	50				
Endrin	89	85	30-152	4	50				
Endrin Aldehyde	73	74	23-138	0	50				
Endrin Ketone	82	77	30-148	7	50				
Heptachlor	87	83	16-152	4	50				
Heptachlor Epoxide	87	84	33-144	4	50				
Methoxychlor	96	92	41-161	5	50				
Batch number: 141670004A	Sample number(s): 7492863-7492865,7492867-7492869 UNSPK: 7492863								
EFH (C12-C14)	146*	135*	49-123	8	20				
EFH (C15-C20)	118	107	49-123	7	20				
EFH (C21-C30)	137*	130*	49-123	2	20				
EFH (C30-C40)	163*	195*	49-123	6	20				
EFH (C8-C11)	91	95	49-123	5	20				
Batch number: 141670005A	Sample number(s): 7492863-7492865,7492867-7492869 UNSPK: 7492863								
EFH C12-C14 w/ SiGel	100	81	49-123	21*	20				
EFH C15-C20 w/ SiGel	77	66	49-123	15	20				
EFH C21-C30 w/ SiGel	60	55	49-123	6	20				
EFH C30-C40 w/ SiGel	89	83	49-123	7	20				
EFH C8-C11 w/ SiGel	52	47*	49-123	11	20				
Batch number: 141610637001	Sample number(s): 7492863-7492867,7492869 UNSPK: 7492863 BKG: 7492863								
Aluminum	2006	1087	75-125	10	20	15,400	12,100	24*	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480552
Reported: 07/07/14 at 12:17 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc		DUP Conc		DUP RPD	Dup RPD Max
	(2)	(2)									
Antimony	38*	42*	75-125	10	20	4.00	U	3.96	U	0 (1)	20
Arsenic	106	107	75-125	1	20	3.83	J	4.53		17 (1)	20
Barium	101	99	75-125	2	20	104		75.9		31*	20
Beryllium	103	103	75-125	0	20	0.659	J	0.558	J	17 (1)	20
Boron	93	96	75-125	3	20	8.58	J	4.18	J	69* (1)	20
Cadmium	95	96	75-125	1	20	0.349	J	0.177	J	65* (1)	20
Calcium	154 (2)	186 (2)	75-125	3	20	3,870		2,860		30*	20
Chromium	112	104	75-125	4	20	18.8		19.5		3	20
Cobalt	96	96	75-125	0	20	5.50		6.52		17	20
Copper	106	105	75-125	1	20	9.37		8.30		12 (1)	20
Iron	2333 (2)	-506 (2)	75-125	12	20	21,200		23,900		12	20
Lead	107	99	75-125	5	20	9.79		4.07		83* (1)	20
Lithium	104	101	75-125	2	20	32.6		28.8		13	20
Magnesium	379 (2)	119 (2)	75-125	10	20	4,480		6,100		31*	20
Manganese	131 (2)	66 (2)	75-125	7	20	380		371		2	20
Molybdenum	93	95	75-125	2	20	0.648	J	0.430	J	41* (1)	20
Nickel	100	98	75-125	1	20	14.2		11.0		25*	20
Phosphorus	86 (2)	86 (2)	75-125	0	20	413		489		17	20
Potassium	170 (2)	128 (2)	75-125	7	20	4,230		2,390		56*	20
Sodium	101	100	75-125	0	20	78.8	J	72.9	J	8 (1)	20
Tin	87	89	75-125	2	20	2.87	J	2.83	J	1 (1)	20
Titanium	395 (2)	305 (2)	75-125	7	20	1,010		1,100		8	20
Vanadium	114	107	75-125	4	20	35.6		40.3		12	20
Zinc	107	97	75-125	5	20	61.0		54.5		11	20
Zirconium	89	91	75-125	2	20	3.90	J	4.02	J	3 (1)	20
Batch number: 141610637001A	Sample number(s): 7492863-7492867,7492869 UNSPK: 7492863 BKG: 7492863										
Silver	110	123	75-125	11	20	0.0514	J	0.198	U	200* (1)	20
Strontium	125	217*	75-125	18	20	26.7		11.0		83*	20
Thallium	119	132*	75-125	7	20	0.272		0.261		4 (1)	20
Batch number: 141610637001B	Sample number(s): 7492863-7492867,7492869 UNSPK: 7492863 BKG: 7492863										
Selenium	107	114	75-125	5	20	0.345	J	0.328	J	5 (1)	20
Batch number: 141610638001	Sample number(s): 7492863-7492867,7492869 UNSPK: 7492863 BKG: 7492863										
3a Mercury 7471A	104	105	65-135	0	20	0.0195		0.0161	U	200* (1)	20
Batch number: 14161039403A	Sample number(s): 7492863,7492866-7492867,7492869 BKG: 7492863										
15a pH by 9045D						6.29		6.32		0	3
Batch number: 14164162401B	Sample number(s): 7492863-7492869 BKG: 7492863										
14a Moisture Content by 160.3						1.9		2.0		3	20
14a Moisture Content by 160.3						1.9		2.0		3	20
14a Moisture Content by 160.3						1.9		2.0		3	20
Batch number: 14163002	Sample number(s): 7492863-7492865,7492867,7492869 UNSPK: 7492863										
2378-TCDD	95	97	40-135	3	20						
12378-PeCDD	100	102	40-135	3	20						
123478-HxCDD	99	100	40-135	2	20						
123678-HxCDD	99	98	40-135	1	20						

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480552
Reported: 07/07/14 at 12:17 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
123789-HxCDD	100	99	40-135	0	20				
1234678-HpCDD	95	96	40-135	2	20				
OCDD	90	91	40-135	1	20				
2378-TCDF	104	103	40-135	0	20				
12378-PeCDF	99	98	40-135	0	20				
23478-PeCDF	99	99	40-135	1	20				
123478-HxCDF	99	101	40-135	2	20				
123678-HxCDF	100	101	40-135	2	20				
123789-HxCDF	98	99	40-135	2	20				
234678-HxCDF	101	102	40-135	1	20				
1234678-HpCDF	97	96	40-135	0	20				
1234789-HpCDF	100	99	40-135	1	20				
OCDF	98	99	40-135	1	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14163SLB026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7492863	93	101	87
7492864	90	97	85
7492865	82	91	77
7492869	88	93	83
Blank	94	101	87
LCS	100	106	92
MS	90	97	85
MSD	82	91	77
Limits:	59-115	61-118	70-127

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14169SLA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7492867	102	106	76
Blank	103	107	90
LCS	104	109	94
MS	100	100	86
MSD	93	94	83
Limits:	59-115	61-118	70-127

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480552
Reported: 07/07/14 at 12:17 PM

Surrogate Quality Control

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141610021A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7492863	105	101
7492864	114	109
7492865	107	104
7492867	103	104
7492869	108	108
Blank	111	109
LCS	113	107
LCSD	118	111
MS	114	109
MSD	107	104
Limits:	45-120	45-120

Analysis Name: 21a Herbicides by EPA 8151A
Batch number: 141620024A

	2,4-Dichlorophenylacetic acid
7492863	92
7492864	100
7492865	93
7492867	77
7492869	80
Blank	80
LCS	93
MS	100
MSD	93
Limits:	50-150

Analysis Name: 20a Pesticides by EPA 8081B
Batch number: 141620028A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7492863	91	109
7492864	92	103
7492865	87	100
7492869	85	93
Blank	95	104
LCS	94	109
MS	92	103
MSD	87	100
Limits:	50-130	20-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141670004A

	Chlorobenzene	Orthoterphenyl
7492863	79	83
7492864	76	97
7492865	74	95

*- Outside of specification
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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480552
Reported: 07/07/14 at 12:17 PM

Surrogate Quality Control

7492867	72	73
7492868	84	89
7492869	82	85
Blank	97	101
LCS	74	96
MS	76	97
MSD	74	95
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141670005A

	Chlorobenzene	Orthoterphenyl
7492863	52	65*
7492864	59	69
7492865	52	61*
7492867	62	73
7492868	53	63*
7492869	51	61*
Blank	57	66
LCS	57	68
MS	59	69
MSD	52	61*
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 14163002

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7492863	82	90	85	87	87	82
7492864	87	94	90	91	99	88
7492865	79	85	87	89	92	87
7492867	83	88	86	89	91	83
7492869	82	85	81	86	88	79
Blank	85	92	94	96	95	88
MS	87	94	90	91	99	88
MSD	79	85	87	89	92	87
OPR	87	93	89	90	91	81
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7492863	76	83	100	91	80	93
7492864	78	86	101	97	87	98
7492865	80	81	93	90	86	97
7492867	76	86	95	91	85	95
7492869	76	83	94	86	81	92
Blank	82	83	102	92	86	103
MS	78	86	101	97	87	98
MSD	80	81	93	90	86	97
OPR	67	85	99	92	83	95
Limits:	17-157	24-169	24-185	21-178	26-152	26-123

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480552
Reported: 07/07/14 at 12:17 PM

Surrogate Quality Control

	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF
7492863	85	77	102	70	64
7492864	90	87	109	74	66
7492865	90	87	108	78	71
7492867	89	86	102	77	68
7492869	85	83	102	71	63
Blank	92	83	114	75	66
MS	90	87	109	74	66
MSD	90	87	108	78	71
OPR	89	84	103	69	56
Limits:	28-136	29-147	28-143	26-138	17-157

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13013 1480552 7492863-69

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/9/2014
CarrierName: FedEx
AirbillNo: 770243934110

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140609-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate. Nitrite. TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
FDG2-SL-558-NBZ-SB-0.0-0.5MS	6/9/14 08:30	SO	None	6 - SS-Sleeve	10 day	X	X					X		X	X						X	X			X															MS/MSD
FDG2-SL-558-NBZ-SB-0.0-0.5MS	6/9/14 08:30	SO	None	2 - 4 oz glass	10 day													X																							MS/MSD
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/14 09:25	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X				X																
FDG2-SL-559-NBZ-SB-0.0-0.5	6/9/14 09:25	SO	None	1 - 4 oz glass	10 day													X																							
FDG2-SL-632-SA8-SB-0.0-0.5	6/9/14 10:50	SO	None	1 - SS-Sleeve	10 day																				X																
FDG2-SL-858-NBZ-SB-0.0-0.5	6/9/14 08:35	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X						X	X			X																
FDG2-SL-858-NBZ-SB-0.0-0.5	6/9/14 08:35	SO	None	1 - 4 oz glass	10 day													X																							

Special Instructions: For all EFH, silica gel cleanup required on half the extract. Analyze both extracts for EFH.

Sampler: Craig Nochajski

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Craig Nochajski	06/14	1000									
										6.10.14	910

Final Data Gap Block 2 1 of 1

Client: CDM

SSFL

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	06/10/2014 9:10
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	3
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	Yes		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Brandy Barclay (2299) at 10:06 on 06/10/2014

Samples Chilled Details: SSFL

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	8013596-IR	0.5	IR	Wet	Y	Bagged	N	N

Container Quantity Discrepancy Details: SSFL

Sample ID on COC	Container Qty. Received	Container Qty. on COC	Comments
FDG2-SL-858-NBZ-SB-0.0-0.5	2	3	Only received 1 sleeve and 1 jar

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.cor

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

July 07, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 06/11/2014
Group Number: 1480924
SDG: PH226
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB2-061014 Water	7494355
SVL-551-SA6-SB-4.0-5.0 Soil	7494356
SVL-562-SA5B-SB-8.0-9.0 Soil	7494357
SVL-549-SA5C-SB-6.3-6.8 Soil	7494358
SVL-561-SA5C-SB-10.5-11.0 Soil	7494359

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: TB2-061014 Water
SSFL Phase 3 Subarea 6

LL Sample # WW 7494355
LL Group # 1480924
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 08:00

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:18

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB261 SDG#: PH226-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	1	U	1	0.5	1
10335	Benzene	71-43-2	1	U	1	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	1	U	1	0.5	1
10335	Bromoform	75-25-2	4	U	4	0.5	1
10335	Bromomethane	74-83-9	1	U	1	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	1	U	1	0.5	1
10335	Chlorobenzene	108-90-7	1	U	1	0.5	1
10335	Chloroethane	75-00-3	1	U	1	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	1	U	1	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	1	U	1	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	1	U	1	0.5	1
10335	1,2-Dibromoethane	106-93-4	1	U	1	0.5	1
10335	Dibromomethane	74-95-3	1	U	1	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	1	U	1	0.5	1
10335	1,1-Dichloroethane	75-34-3	1	U	1	0.5	1
10335	1,2-Dichloroethane	107-06-2	1	U	1	0.5	1
10335	1,1-Dichloroethene	75-35-4	1	U	1	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	1	U	1	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	1	U	1	0.5	1
10335	1,2-Dichloropropane	78-87-5	1	U	1	0.5	1
10335	1,3-Dichloropropane	142-28-9	1	U	1	0.5	1
10335	2,2-Dichloropropane	594-20-7	1	U	1	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	1	U	1	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	1	U	1	0.5	1
10335	Ethyl t-butyl ether	637-92-3	1	U	1	0.5	1
10335	Ethylbenzene	100-41-4	1	U	1	0.5	1
10335	Freon 113	76-13-1	10	U	10	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: TB2-061014 Water
SSFL Phase 3 Subarea 6

LL Sample # WW 7494355
LL Group # 1480924
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 08:00

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:18

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB261 SDG#: PH226-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	1	U	1	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	1	U	1	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	1	U	1	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	3	U	3	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	1	U	1	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	1	U	1	0.5	1
10335	Tetrachloroethene	127-18-4	1	U	1	0.5	1
10335	Toluene	108-88-3	1	U	1	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	1	U	1	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	1	U	1	0.5	1
10335	Trichloroethene	79-01-6	1	U	1	0.5	1
10335	Trichlorofluoromethane	75-69-4	1	U	1	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	1	U	1	0.5	1
10335	m+p-Xylene	179601-23-1	1	U	1	0.5	1
10335	o-Xylene	95-47-6	1	U	1	0.5	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141701AA	06/19/2014 11:15	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141701AA	06/19/2014 11:15	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-551-SA6-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7494356
LL Group # 1480924
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 09:45 by AP

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:18

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55104 SDG#: PH226-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	20	U	20	7	0.91
10237	Acrolein	107-02-8	100	U	100	20	0.91
10237	Acrylonitrile	107-13-1	20	U	20	4	0.91
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.91
10237	Benzene	71-43-2	5	U	5	0.5	0.91
10237	Bromobenzene	108-86-1	5	U	5	1	0.91
10237	Bromochloromethane	74-97-5	5	U	5	1	0.91
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.91
10237	Bromoform	75-25-2	5	U	5	1	0.91
10237	Bromomethane	74-83-9	5	U	5	2	0.91
10237	2-Butanone	78-93-3	10	U	10	4	0.91
10237	t-Butyl alcohol	75-65-0	50	U	50	20	0.91
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.91
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.91
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.91
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.91
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.91
10237	Chlorobenzene	108-90-7	5	U	5	1	0.91
10237	Chloroethane	75-00-3	5	U	5	2	0.91
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.91
10237	Chloroform	67-66-3	5	U	5	1	0.91
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.91
10237	Chloromethane	74-87-3	5	U	5	2	0.91
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.91
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.91
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.91
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.91
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.91
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.91
10237	Dibromomethane	74-95-3	5	U	5	1	0.91
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.91
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.91
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.91
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.91
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.91
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.91
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.91
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.91
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.91
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.91
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.91
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.91
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.91
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.91
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.91
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.91
10237	Ethylbenzene	100-41-4	5	U	5	1	0.91
10237	Freon 113	76-13-1	5	U	5	2	0.91
10237	Freon 133a	75-88-7	5	U	5	2	0.91
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.91
10237	2-Hexanone	591-78-6	10	U	10	3	0.91

*=This limit was used in the evaluation of the final result

Sample Description: SVL-551-SA6-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7494356
LL Group # 1480924
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 09:45 by AP

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:18

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55104 SDG#: PH226-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.91
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.91
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.91
10237	Methyl Iodide	74-88-4	5	U	5	3	0.91
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.91
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.91
10237	Methylene Chloride	75-09-2	5	U	5	2	0.91
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.91
10237	Styrene	100-42-5	5	U	5	1	0.91
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.91
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.91
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.91
10237	Toluene	108-88-3	5	U	5	1	0.91
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.91
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.91
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.91
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.91
10237	Trichloroethene	79-01-6	5	U	5	1	0.91
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.91
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.91
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.91
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.91
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.91
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.91
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.91
10237	o-Xylene	95-47-6	5	U	5	1	0.91
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	9.3		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141751AA	06/24/2014 21:21	Sara E Johnson	0.91
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201416234774	06/11/2014 15:36	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-551-SA6-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7494356
LL Group # 1480924
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 09:45 by AP

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:18

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55104 SDG#: PH226-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201416234774	06/11/2014 15:36	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201416234774	06/11/2014 15:30	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14169162401A	06/18/2014 20:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-562-SA5B-SB-8.0-9.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7494357
LL Group # 1480924
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 14:45 by AP

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:18

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56280 SDG#: PH226-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	21	U	21	7	0.98
10237	Acrolein	107-02-8	100	U	100	21	0.98
10237	Acrylonitrile	107-13-1	21	U	21	4	0.98
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.98
10237	Benzene	71-43-2	5	U	5	0.5	0.98
10237	Bromobenzene	108-86-1	5	U	5	1	0.98
10237	Bromochloromethane	74-97-5	5	U	5	1	0.98
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.98
10237	Bromoform	75-25-2	5	U	5	1	0.98
10237	Bromomethane	74-83-9	5	U	5	2	0.98
10237	2-Butanone	78-93-3	10	U	10	4	0.98
10237	t-Butyl alcohol	75-65-0	52	U	52	21	0.98
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.98
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.98
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.98
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.98
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.98
10237	Chlorobenzene	108-90-7	5	U	5	1	0.98
10237	Chloroethane	75-00-3	5	U	5	2	0.98
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.98
10237	Chloroform	67-66-3	5	U	5	1	0.98
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.98
10237	Chloromethane	74-87-3	5	U	5	2	0.98
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.98
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.98
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.98
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.98
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.98
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.98
10237	Dibromomethane	74-95-3	5	U	5	1	0.98
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.98
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.98
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.98
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.98
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.98
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.98
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.98
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.98
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.98
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.98
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.98
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.98
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.98
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.98
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.98
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.98
10237	Ethylbenzene	100-41-4	5	U	5	1	0.98
10237	Freon 113	76-13-1	5	U	5	2	0.98
10237	Freon 133a	75-88-7	5	U	5	2	0.98
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.98
10237	2-Hexanone	591-78-6	10	U	10	3	0.98

*=This limit was used in the evaluation of the final result

Sample Description: SVL-562-SA5B-SB-8.0-9.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7494357
LL Group # 1480924
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 14:45 by AP

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:18

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56280 SDG#: PH226-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.98
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.98
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.98
10237	Methyl Iodide	74-88-4	5	U	5	3	0.98
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.98
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.98
10237	Methylene Chloride	75-09-2	5	U	5	2	0.98
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.98
10237	Styrene	100-42-5	5	U	5	1	0.98
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.98
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.98
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.98
10237	Toluene	108-88-3	5	U	5	1	0.98
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.98
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.98
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.98
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.98
10237	Trichloroethene	79-01-6	5	U	5	1	0.98
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.98
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.98
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.98
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.98
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.98
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.98
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.98
10237	o-Xylene	95-47-6	5	U	5	1	0.98
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	6.6		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141642AA	06/14/2014 06:02	Stephanie A Selis	0.98
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201416234774	06/11/2014 15:36	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-562-SA5B-SB-8.0-9.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7494357
LL Group # 1480924
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 14:45 by AP

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:18

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56280 SDG#: PH226-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201416234774	06/11/2014 15:36	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201416234774	06/11/2014 15:32	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14169162401A	06/18/2014 20:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-549-SA5C-SB-6.3-6.8 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7494358
LL Group # 1480924
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 14:23 by AP

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:18

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54963 SDG#: PH226-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	Acetone	67-64-1	18	U	18	6	0.79
10237	Acrolein	107-02-8	91	U	91	18	0.79
10237	Acrylonitrile	107-13-1	18	U	18	4	0.79
10237	t-Amyl methyl ether	994-05-8	5	U	5	0.9	0.79
10237	Benzene	71-43-2	5	U	5	0.5	0.79
10237	Bromobenzene	108-86-1	5	U	5	0.9	0.79
10237	Bromochloromethane	74-97-5	5	U	5	0.9	0.79
10237	Bromodichloromethane	75-27-4	5	U	5	0.9	0.79
10237	Bromoform	75-25-2	5	U	5	0.9	0.79
10237	Bromomethane	74-83-9	5	U	5	2	0.79
10237	2-Butanone	78-93-3	9	U	9	4	0.79
10237	t-Butyl alcohol	75-65-0	45	U	45	18	0.79
10237	n-Butylbenzene	104-51-8	5	U	5	0.9	0.79
10237	sec-Butylbenzene	135-98-8	5	U	5	0.9	0.79
10237	tert-Butylbenzene	98-06-6	5	U	5	0.9	0.79
10237	Carbon Disulfide	75-15-0	5	U	5	0.9	0.79
10237	Carbon Tetrachloride	56-23-5	5	U	5	0.9	0.79
10237	Chlorobenzene	108-90-7	5	U	5	0.9	0.79
10237	Chloroethane	75-00-3	5	U	5	2	0.79
10237	2-Chloroethyl Vinyl Ether	110-75-8	9	U	9	2	0.79
10237	Chloroform	67-66-3	5	U	5	0.9	0.79
10237	1-Chlorohexane	544-10-5	5	U	5	0.9	0.79
10237	Chloromethane	74-87-3	5	U	5	2	0.79
10237	2-Chlorotoluene	95-49-8	5	U	5	0.9	0.79
10237	4-Chlorotoluene	106-43-4	5	U	5	0.9	0.79
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.79
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.79
10237	Dibromochloromethane	124-48-1	5	U	5	0.9	0.79
10237	1,2-Dibromoethane	106-93-4	5	U	5	0.9	0.79
10237	Dibromomethane	74-95-3	5	U	5	0.9	0.79
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	0.9	0.79
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	0.9	0.79
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	0.9	0.79
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.79
10237	1,1-Dichloroethane	75-34-3	5	U	5	0.9	0.79
10237	1,2-Dichloroethane	107-06-2	5	U	5	0.9	0.79
10237	1,1-Dichloroethene	75-35-4	5	U	5	0.9	0.79
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.9	0.79
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.9	0.79
10237	1,2-Dichloropropane	78-87-5	5	U	5	0.9	0.79
10237	1,3-Dichloropropane	142-28-9	5	U	5	0.9	0.79
10237	2,2-Dichloropropane	594-20-7	5	U	5	0.9	0.79
10237	1,1-Dichloropropene	563-58-6	5	U	5	0.9	0.79
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.9	0.79
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.9	0.79
10237	Ethyl t-butyl ether	637-92-3	5	U	5	0.9	0.79
10237	Ethylbenzene	100-41-4	5	U	5	0.9	0.79
10237	Freon 113	76-13-1	5	U	5	2	0.79
10237	Freon 133a	75-88-7	5	U	5	2	0.79
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.79
10237	2-Hexanone	591-78-6	9	U	9	3	0.79

*=This limit was used in the evaluation of the final result

Sample Description: SVL-549-SA5C-SB-6.3-6.8 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7494358
LL Group # 1480924
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 14:23 by AP

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:18

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54963 SDG#: PH226-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	0.9	0.79
10237	Isopropylbenzene	98-82-8	5	U	5	0.9	0.79
10237	p-Isopropyltoluene	99-87-6	5	U	5	0.9	0.79
10237	Methyl Iodide	74-88-4	5	U	5	3	0.79
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.79
10237	4-Methyl-2-pentanone	108-10-1	9	U	9	3	0.79
10237	Methylene Chloride	75-09-2	5	U	5	2	0.79
10237	n-Propylbenzene	103-65-1	5	U	5	0.9	0.79
10237	Styrene	100-42-5	5	U	5	0.9	0.79
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.9	0.79
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.9	0.79
10237	Tetrachloroethene	127-18-4	5	U	5	0.9	0.79
10237	Toluene	108-88-3	5	U	5	0.9	0.79
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	0.9	0.79
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	0.9	0.79
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	0.9	0.79
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	0.9	0.79
10237	Trichloroethene	79-01-6	5	U	5	0.9	0.79
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.79
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	0.9	0.79
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	0.9	0.79
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	0.9	0.79
10237	Vinyl Acetate	108-05-4	9	U	9	2	0.79
10237	Vinyl Chloride	75-01-4	5	U	5	0.9	0.79
10237	m+p-Xylene	179601-23-1	5	U	5	0.9	0.79
10237	o-Xylene	95-47-6	5	U	5	0.9	0.79
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3	n.a.	12.5		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141642AA	06/14/2014 06:24	Stephanie A Selis	0.79
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201416234774	06/11/2014 15:37	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-549-SA5C-SB-6.3-6.8 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7494358
LL Group # 1480924
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 14:23 by AP

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:18

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54963 SDG#: PH226-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201416234774	06/11/2014 15:37	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201416234774	06/11/2014 15:33	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14169162401A	06/18/2014 20:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-561-SA5C-SB-10.5-11.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7494359
LL Group # 1480924
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 13:24 by AP

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:18

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56110 SDG#: PH226-05*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	18	U	18	6	0.79
10237	Acrolein	107-02-8	90	U	90	18	0.79
10237	Acrylonitrile	107-13-1	18	U	18	4	0.79
10237	t-Amyl methyl ether	994-05-8	5	U	5	0.9	0.79
10237	Benzene	71-43-2	5	U	5	0.5	0.79
10237	Bromobenzene	108-86-1	5	U	5	0.9	0.79
10237	Bromochloromethane	74-97-5	5	U	5	0.9	0.79
10237	Bromodichloromethane	75-27-4	5	U	5	0.9	0.79
10237	Bromoform	75-25-2	5	U	5	0.9	0.79
10237	Bromomethane	74-83-9	5	U	5	2	0.79
10237	2-Butanone	78-93-3	9	U	9	4	0.79
10237	t-Butyl alcohol	75-65-0	45	U	45	18	0.79
10237	n-Butylbenzene	104-51-8	5	U	5	0.9	0.79
10237	sec-Butylbenzene	135-98-8	5	U	5	0.9	0.79
10237	tert-Butylbenzene	98-06-6	5	U	5	0.9	0.79
10237	Carbon Disulfide	75-15-0	5	U	5	0.9	0.79
10237	Carbon Tetrachloride	56-23-5	5	U	5	0.9	0.79
10237	Chlorobenzene	108-90-7	5	U	5	0.9	0.79
10237	Chloroethane	75-00-3	5	U	5	2	0.79
10237	2-Chloroethyl Vinyl Ether	110-75-8	9	U	9	2	0.79
10237	Chloroform	67-66-3	5	U	5	0.9	0.79
10237	1-Chlorohexane	544-10-5	5	U	5	0.9	0.79
10237	Chloromethane	74-87-3	5	U	5	2	0.79
10237	2-Chlorotoluene	95-49-8	5	U	5	0.9	0.79
10237	4-Chlorotoluene	106-43-4	5	U	5	0.9	0.79
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.79
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.79
10237	Dibromochloromethane	124-48-1	5	U	5	0.9	0.79
10237	1,2-Dibromoethane	106-93-4	5	U	5	0.9	0.79
10237	Dibromomethane	74-95-3	5	U	5	0.9	0.79
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	0.9	0.79
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	0.9	0.79
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	0.9	0.79
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.79
10237	1,1-Dichloroethane	75-34-3	5	U	5	0.9	0.79
10237	1,2-Dichloroethane	107-06-2	5	U	5	0.9	0.79
10237	1,1-Dichloroethene	75-35-4	5	U	5	0.9	0.79
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.9	0.79
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.9	0.79
10237	1,2-Dichloropropane	78-87-5	5	U	5	0.9	0.79
10237	1,3-Dichloropropane	142-28-9	5	U	5	0.9	0.79
10237	2,2-Dichloropropane	594-20-7	5	U	5	0.9	0.79
10237	1,1-Dichloropropene	563-58-6	5	U	5	0.9	0.79
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.9	0.79
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.9	0.79
10237	Ethyl t-butyl ether	637-92-3	5	U	5	0.9	0.79
10237	Ethylbenzene	100-41-4	5	U	5	0.9	0.79
10237	Freon 113	76-13-1	5	U	5	2	0.79
10237	Freon 133a	75-88-7	5	U	5	2	0.79
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.79
10237	2-Hexanone	591-78-6	9	U	9	3	0.79

*=This limit was used in the evaluation of the final result

Sample Description: SVL-561-SA5C-SB-10.5-11.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7494359
LL Group # 1480924
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 13:24 by AP

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:18

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56110 SDG#: PH226-05*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	di-Isopropyl ether	108-20-3	5	U	5	0.9	0.79
10237	Isopropylbenzene	98-82-8	5	U	5	0.9	0.79
10237	p-Isopropyltoluene	99-87-6	5	U	5	0.9	0.79
10237	Methyl Iodide	74-88-4	5	U	5	3	0.79
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.79
10237	4-Methyl-2-pentanone	108-10-1	9	U	9	3	0.79
10237	Methylene Chloride	75-09-2	5	U	5	2	0.79
10237	n-Propylbenzene	103-65-1	5	U	5	0.9	0.79
10237	Styrene	100-42-5	5	U	5	0.9	0.79
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.9	0.79
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.9	0.79
10237	Tetrachloroethene	127-18-4	5	U	5	0.9	0.79
10237	Toluene	108-88-3	5	U	5	0.9	0.79
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	0.9	0.79
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	0.9	0.79
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	0.9	0.79
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	0.9	0.79
10237	Trichloroethene	79-01-6	5	U	5	0.9	0.79
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.79
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	0.9	0.79
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	0.9	0.79
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	0.9	0.79
10237	Vinyl Acetate	108-05-4	9	U	9	2	0.79
10237	Vinyl Chloride	75-01-4	5	U	5	0.9	0.79
10237	m+p-Xylene	179601-23-1	5	U	5	0.9	0.79
10237	o-Xylene	95-47-6	5	U	5	0.9	0.79
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	12.1		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141642AA	06/14/2014 06:46	Stephanie A Selis	0.79
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201416234774	06/11/2014 15:37	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-561-SA5C-SB-10.5-11.0 Soil
SSFL Phase 3 Subarea 5C

LL Sample # SW 7494359
LL Group # 1480924
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 13:24 by AP

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:18

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56110 SDG#: PH226-05*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201416234774	06/11/2014 15:37	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201416234774	06/11/2014 15:36	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14169162401A	06/18/2014 20:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480924
Reported: 07/07/14 at 12:18 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B141642AA	Sample number(s): 7494357-7494359								
Acetone	20 U	20.	7	ug/kg	114	103	41-149	10	30
Acrolein	100 U	100.	20	ug/kg	84	78	50-137	8	30
Acrylonitrile	20 U	20.	4	ug/kg	90	98	58-123	9	30
t-Amyl methyl ether	5 U	5.	1	ug/kg	94	99	63-130	5	30
Benzene	5 U	5.	0.5	ug/kg	102	103	80-120	1	30
Bromobenzene	5 U	5.	1	ug/kg	107	101	78-120	6	30
Bromochloromethane	5 U	5.	1	ug/kg	107	108	75-129	1	30
Bromodichloromethane	5 U	5.	1	ug/kg	100	102	75-120	2	30
Bromoform	5 U	5.	1	ug/kg	103	108	70-126	5	30
Bromomethane	5 U	5.	2	ug/kg	111	105	32-162	5	30
2-Butanone	10 U	10.	4	ug/kg	84	89	47-136	6	30
t-Butyl alcohol	50 U	50.	20	ug/kg	105	106	66-133	1	30
n-Butylbenzene	5 U	5.	1	ug/kg	102	95	72-120	8	30
sec-Butylbenzene	5 U	5.	1	ug/kg	99	92	69-120	7	30
tert-Butylbenzene	5 U	5.	1	ug/kg	105	95	75-120	9	30
Carbon Disulfide	5 U	5.	1	ug/kg	104	99	63-128	4	30
Carbon Tetrachloride	5 U	5.	1	ug/kg	109	109	69-130	0	30
Chlorobenzene	5 U	5.	1	ug/kg	106	106	80-120	0	30
Chloroethane	5 U	5.	2	ug/kg	101	99	17-171	2	30
2-Chloroethyl Vinyl Ether	10 U	10.	2	ug/kg	73	80	52-134	8	30
Chloroform	5 U	5.	1	ug/kg	108	108	80-120	0	30
1-Chlorohexane	5 U	5.	1	ug/kg	73	72	70-130	2	30
Chloromethane	5 U	5.	2	ug/kg	98	101	56-120	3	30
2-Chlorotoluene	5 U	5.	1	ug/kg	103	99	78-120	4	30
4-Chlorotoluene	5 U	5.	1	ug/kg	107	102	79-120	5	30
Chlorotrifluoroethene	5 U	5.	2	ug/kg	70	68	22-131	3	30
1,2-Dibromo-3-chloropropane	5 U	5.	2	ug/kg	94	94	50-132	0	30
Dibromochloromethane	5 U	5.	1	ug/kg	105	108	77-120	2	30
1,2-Dibromoethane	5 U	5.	1	ug/kg	102	107	80-120	5	30
Dibromomethane	5 U	5.	1	ug/kg	98	103	75-120	5	30
1,2-Dichlorobenzene	5 U	5.	1	ug/kg	109	101	80-120	8	30
1,3-Dichlorobenzene	5 U	5.	1	ug/kg	109	103	80-120	6	30
1,4-Dichlorobenzene	5 U	5.	1	ug/kg	107	101	80-120	6	30
Dichlorodifluoromethane	5 U	5.	2	ug/kg	105	100	26-137	4	30
1,1-Dichloroethane	5 U	5.	1	ug/kg	99	100	71-122	1	30
1,2-Dichloroethane	5 U	5.	1	ug/kg	108	108	66-136	0	30
1,1-Dichloroethene	5 U	5.	1	ug/kg	116	117	73-129	1	30
cis-1,2-Dichloroethene	5 U	5.	1	ug/kg	105	105	80-120	1	30
trans-1,2-Dichloroethene	5 U	5.	1	ug/kg	117	117	79-120	0	30
1,2-Dichloropropane	5 U	5.	1	ug/kg	96	97	77-120	1	30
1,3-Dichloropropane	5 U	5.	1	ug/kg	95	100	73-120	4	30
2,2-Dichloropropane	5 U	5.	1	ug/kg	104	105	72-123	1	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480924
Reported: 07/07/14 at 12:18 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/kg	106	107	77-120	0	30
cis-1,3-Dichloropropene	5	U	5.	1	ug/kg	96	99	74-120	3	30
trans-1,3-Dichloropropene	5	U	5.	1	ug/kg	96	100	69-120	4	30
Ethyl t-butyl ether	5	U	5.	1	ug/kg	93	98	59-134	5	30
Ethylbenzene	5	U	5.	1	ug/kg	105	104	80-120	1	30
Freon 113	5	U	5.	2	ug/kg	106	102	64-137	3	30
Freon 133a	5	U	5.	2	ug/kg	111	106	78-120	5	30
Hexachlorobutadiene	5	U	5.	2	ug/kg	110	104	46-130	6	30
2-Hexanone	10	U	10.	3	ug/kg	83	90	40-129	8	30
di-Isopropyl ether	5	U	5.	1	ug/kg	94	97	68-128	2	30
Isopropylbenzene	5	U	5.	1	ug/kg	106	105	76-120	1	30
p-Isopropyltoluene	5	U	5.	1	ug/kg	103	95	69-120	8	30
Methyl Iodide	5	U	5.	3	ug/kg	121	117	72-130	3	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/kg	103	106	69-126	3	30
4-Methyl-2-pentanone	10	U	10.	3	ug/kg	84	93	43-133	10	30
Methylene Chloride	5	U	5.	2	ug/kg	119	116	80-124	2	30
n-Propylbenzene	5	U	5.	1	ug/kg	103	97	77-120	7	30
Styrene	5	U	5.	1	ug/kg	106	107	76-120	2	30
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/kg	110	109	80-120	1	30
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/kg	95	90	71-123	5	30
Tetrachloroethene	5	U	5.	1	ug/kg	107	109	78-120	1	30
Toluene	5	U	5.	1	ug/kg	102	103	80-120	1	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/kg	104	102	64-120	2	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/kg	107	102	68-120	4	30
1,1,1-Trichloroethane	5	U	5.	1	ug/kg	98	98	63-135	0	30
1,1,2-Trichloroethane	5	U	5.	1	ug/kg	103	104	80-120	1	30
Trichloroethene	5	U	5.	1	ug/kg	106	107	80-120	1	30
Trichlorofluoromethane	5	U	5.	2	ug/kg	107	105	58-133	2	30
1,2,3-Trichloropropane	5	U	5.	1	ug/kg	104	98	71-123	5	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/kg	107	98	79-120	9	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/kg	106	99	78-120	7	30
Vinyl Acetate	10	U	10.	2	ug/kg	103	102	40-127	1	30
Vinyl Chloride	5	U	5.	1	ug/kg	106	103	59-120	3	30
m+p-Xylene	5	U	5.	1	ug/kg	105	106	80-120	1	30
o-Xylene	5	U	5.	1	ug/kg	104	105	80-120	1	30
Batch number: B141751AA	Sample number(s): 7494356									
Acetone	20	U	20.	7	ug/kg	95		41-149		
Acrolein	100 U		100.	20	ug/kg	88		50-137		
Acrylonitrile	20	U	20.	4	ug/kg	97		58-123		
t-Amyl methyl ether	5	U	5.	1	ug/kg	103		63-130		
Benzene	5	U	5.	0.5	ug/kg	106		80-120		
Bromobenzene	5	U	5.	1	ug/kg	108		78-120		
Bromochloromethane	5	U	5.	1	ug/kg	99		75-129		
Bromodichloromethane	5	U	5.	1	ug/kg	101		75-120		
Bromoform	5	U	5.	1	ug/kg	97		70-126		
Bromomethane	5	U	5.	2	ug/kg	57		32-162		
2-Butanone	10	U	10.	4	ug/kg	94		47-136		
t-Butyl alcohol	50	U	50.	20	ug/kg	100		66-133		
n-Butylbenzene	5	U	5.	1	ug/kg	111		72-120		
sec-Butylbenzene	5	U	5.	1	ug/kg	112		69-120		
tert-Butylbenzene	5	U	5.	1	ug/kg	110		75-120		
Carbon Disulfide	5	U	5.	1	ug/kg	81		63-128		
Carbon Tetrachloride	5	U	5.	1	ug/kg	106		69-130		
Chlorobenzene	5	U	5.	1	ug/kg	109		80-120		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480924
Reported: 07/07/14 at 12:18 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroethane	5	U	5.	2	ug/kg	53		17-171		
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/kg	102		52-134		
Chloroform	5	U	5.	1	ug/kg	108		80-120		
1-Chlorohexane	5	U	5.	1	ug/kg	101		70-130		
Chloromethane	5	U	5.	2	ug/kg	86		56-120		
2-Chlorotoluene	5	U	5.	1	ug/kg	108		78-120		
4-Chlorotoluene	5	U	5.	1	ug/kg	112		79-120		
Chlorotrifluoroethene	5	U	5.	2	ug/kg	98		22-131		
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/kg	101		50-132		
Dibromochloromethane	5	U	5.	1	ug/kg	103		77-120		
1,2-Dibromoethane	5	U	5.	1	ug/kg	107		80-120		
Dibromomethane	5	U	5.	1	ug/kg	102		75-120		
1,2-Dichlorobenzene	5	U	5.	1	ug/kg	112		80-120		
1,3-Dichlorobenzene	5	U	5.	1	ug/kg	108		80-120		
1,4-Dichlorobenzene	5	U	5.	1	ug/kg	110		80-120		
Dichlorodifluoromethane	5	U	5.	2	ug/kg	73		26-137		
1,1-Dichloroethane	5	U	5.	1	ug/kg	104		71-122		
1,2-Dichloroethane	5	U	5.	1	ug/kg	105		66-136		
1,1-Dichloroethene	5	U	5.	1	ug/kg	96		73-129		
cis-1,2-Dichloroethene	5	U	5.	1	ug/kg	107		80-120		
trans-1,2-Dichloroethene	5	U	5.	1	ug/kg	112		79-120		
1,2-Dichloropropane	5	U	5.	1	ug/kg	107		77-120		
1,3-Dichloropropane	5	U	5.	1	ug/kg	104		73-120		
2,2-Dichloropropane	5	U	5.	1	ug/kg	105		72-123		
1,1-Dichloropropene	5	U	5.	1	ug/kg	111		77-120		
cis-1,3-Dichloropropene	5	U	5.	1	ug/kg	105		74-120		
trans-1,3-Dichloropropene	5	U	5.	1	ug/kg	105		69-120		
Ethyl t-butyl ether	5	U	5.	1	ug/kg	104		59-134		
Ethylbenzene	5	U	5.	1	ug/kg	110		80-120		
Freon 113	5	U	5.	2	ug/kg	88		64-137		
Freon 133a	5	U	5.	2	ug/kg	104		78-120		
Hexachlorobutadiene	5	U	5.	2	ug/kg	106		46-130		
2-Hexanone	10	U	10.	3	ug/kg	99		40-129		
di-Isopropyl ether	5	U	5.	1	ug/kg	107		68-128		
Isopropylbenzene	5	U	5.	1	ug/kg	111		76-120		
p-Isopropyltoluene	5	U	5.	1	ug/kg	111		69-120		
Methyl Iodide	5	U	5.	3	ug/kg	92		72-130		
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/kg	105		69-126		
4-Methyl-2-pentanone	10	U	10.	3	ug/kg	98		43-133		
Methylene Chloride	5	U	5.	2	ug/kg	102		80-124		
n-Propylbenzene	5	U	5.	1	ug/kg	111		77-120		
Styrene	5	U	5.	1	ug/kg	111		76-120		
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/kg	105		80-120		
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/kg	103		71-123		
Tetrachloroethene	5	U	5.	1	ug/kg	111		78-120		
Toluene	5	U	5.	1	ug/kg	108		80-120		
1,2,3-Trichlorobenzene	5	U	5.	1	ug/kg	107		64-120		
1,2,4-Trichlorobenzene	5	U	5.	1	ug/kg	110		68-120		
1,1,1-Trichloroethane	5	U	5.	1	ug/kg	105		63-135		
1,1,2-Trichloroethane	5	U	5.	1	ug/kg	104		80-120		
Trichloroethene	5	U	5.	1	ug/kg	109		80-120		
Trichlorofluoromethane	5	U	5.	2	ug/kg	86		58-133		
1,2,3-Trichloropropane	5	U	5.	1	ug/kg	107		71-123		
1,2,4-Trimethylbenzene	5	U	5.	1	ug/kg	111		79-120		
1,3,5-Trimethylbenzene	5	U	5.	1	ug/kg	112		78-120		
Vinyl Acetate	10	U	10.	2	ug/kg	111		40-127		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480924
Reported: 07/07/14 at 12:18 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vinyl Chloride	5	U	5.	1	ug/kg	91		59-120		
m+p-Xylene	5	U	5.	1	ug/kg	111		80-120		
o-Xylene	5	U	5.	1	ug/kg	109		80-120		
Batch number: Y141701AA	Sample number(s): 7494355									
Acetone	20	U	20.	6	ug/l	82	85	43-149	4	30
Acrolein	100 U		100.	40	ug/l	97	94	52-129	3	30
Acrylonitrile	20	U	20.	4	ug/l	89	94	62-120	6	30
t-Amyl methyl ether	1	U	1.	0.5	ug/l	101	102	75-120	1	30
Benzene	1	U	1.	0.5	ug/l	103	105	78-120	1	30
Bromobenzene	5	U	5.	1	ug/l	102	103	80-120	1	30
Bromochloromethane	5	U	5.	1	ug/l	101	101	80-121	0	30
Bromodichloromethane	1	U	1.	0.5	ug/l	97	97	73-120	0	30
Bromoform	4	U	4.	0.5	ug/l	91	90	61-120	1	30
Bromomethane	1	U	1.	0.5	ug/l	92	95	58-120	3	30
2-Butanone	10	U	10.	3	ug/l	95	96	54-133	1	30
t-Butyl alcohol	50	U	50.	5	ug/l	115	113	75-120	2	30
n-Butylbenzene	5	U	5.	1	ug/l	106	107	68-120	1	30
sec-Butylbenzene	5	U	5.	1	ug/l	108	109	80-120	1	30
tert-Butylbenzene	5	U	5.	1	ug/l	104	106	73-120	2	30
Carbon Disulfide	5	U	5.	1	ug/l	86	90	58-126	4	30
Carbon Tetrachloride	1	U	1.	0.5	ug/l	100	103	74-130	3	30
Chlorobenzene	1	U	1.	0.5	ug/l	102	105	80-120	2	30
Chloroethane	1	U	1.	0.5	ug/l	87	87	56-120	0	30
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/l	101	103	54-126	2	30
Chloroform	1	U	1.	0.5	ug/l	103	104	80-122	1	30
1-Chlorohexane	5	U	5.	1	ug/l	104	107	80-120	3	30
Chloromethane	1	U	1.	0.5	ug/l	104	97	63-120	7	30
2-Chlorotoluene	5	U	5.	1	ug/l	102	102	80-120	1	30
4-Chlorotoluene	5	U	5.	1	ug/l	101	102	80-120	1	30
Chlorotrifluoroethene	5	U	5.	2	ug/l	85	82	47-120	4	30
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/l	98	99	56-120	0	30
Dibromochloromethane	1	U	1.	0.5	ug/l	91	92	72-120	1	30
1,2-Dibromoethane	1	U	1.	0.5	ug/l	105	107	76-120	2	30
Dibromomethane	1	U	1.	0.5	ug/l	103	102	80-120	1	30
1,2-Dichlorobenzene	5	U	5.	1	ug/l	102	102	80-120	0	30
1,3-Dichlorobenzene	5	U	5.	1	ug/l	102	102	80-120	1	30
1,4-Dichlorobenzene	5	U	5.	1	ug/l	101	103	80-120	2	30
Dichlorodifluoromethane	1	U	1.	0.5	ug/l	85	84	48-132	1	30
1,1-Dichloroethane	1	U	1.	0.5	ug/l	103	105	80-120	2	30
1,2-Dichloroethane	1	U	1.	0.5	ug/l	105	105	65-135	0	30
1,1-Dichloroethene	1	U	1.	0.5	ug/l	94	98	76-124	4	30
cis-1,2-Dichloroethene	1	U	1.	0.5	ug/l	105	107	80-120	2	30
trans-1,2-Dichloroethene	1	U	1.	0.5	ug/l	103	106	80-120	3	30
1,2-Dichloropropane	1	U	1.	0.5	ug/l	101	102	80-120	1	30
1,3-Dichloropropane	1	U	1.	0.5	ug/l	101	104	80-120	3	30
2,2-Dichloropropane	1	U	1.	0.5	ug/l	103	106	67-124	3	30
1,1-Dichloropropene	5	U	5.	1	ug/l	106	107	80-120	0	30
cis-1,3-Dichloropropene	1	U	1.	0.5	ug/l	98	99	80-120	1	30
trans-1,3-Dichloropropene	1	U	1.	0.5	ug/l	100	100	76-120	1	30
Ethyl t-butyl ether	1	U	1.	0.5	ug/l	102	102	74-120	0	30
Ethylbenzene	1	U	1.	0.5	ug/l	101	102	79-120	1	30
Freon 113	10	U	10.	2	ug/l	82	85	67-127	4	30
Freon 133a	5	U	5.	2	ug/l	115	116	46-152	1	30
Hexachlorobutadiene	5	U	5.	2	ug/l	101	100	51-125	1	30

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480924
Reported: 07/07/14 at 12:18 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
2-Hexanone	10	U	10.	3	ug/l	96	97	44-126	1	30
di-Isopropyl ether	1	U	1.	0.5	ug/l	104	104	65-120	0	30
Isopropylbenzene	5	U	5.	1	ug/l	103	104	77-120	1	30
p-Isopropyltoluene	5	U	5.	1	ug/l	105	106	80-120	1	30
Methyl Iodide	1	U	1.	0.5	ug/l	106	106	75-128	0	30
Methyl Tertiary Butyl Ether	1	U	1.	0.5	ug/l	99	101	75-120	2	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	97	98	51-124	1	30
Methylene Chloride	3	U	3.	2	ug/l	93	95	80-120	2	30
n-Propylbenzene	5	U	5.	1	ug/l	106	107	80-120	2	30
Styrene	5	U	5.	1	ug/l	101	103	80-120	2	30
1,1,1,2-Tetrachloroethane	1	U	1.	0.5	ug/l	100	103	80-120	2	30
1,1,2,2-Tetrachloroethane	1	U	1.	0.5	ug/l	102	104	70-120	2	30
Tetrachloroethene	1	U	1.	0.5	ug/l	101	104	80-120	3	30
Toluene	1	U	1.	0.5	ug/l	104	106	80-120	2	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	100	100	58-126	1	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	103	104	65-120	2	30
1,1,1-Trichloroethane	1	U	1.	0.5	ug/l	99	99	66-126	0	30
1,1,2-Trichloroethane	1	U	1.	0.5	ug/l	103	104	80-120	0	30
Trichloroethene	1	U	1.	0.5	ug/l	105	106	80-120	1	30
Trichlorofluoromethane	1	U	1.	0.5	ug/l	86	90	65-130	4	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	102	104	76-120	2	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	104	106	74-120	1	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	106	106	74-120	0	30
Vinyl Acetate	10	U	10.	2	ug/l	81	72	56-135	11	30
Vinyl Chloride	1	U	1.	0.5	ug/l	102	95	63-120	7	30
m+p-Xylene	1	U	1.	0.5	ug/l	101	102	80-120	1	30
o-Xylene	1	U	1.	0.5	ug/l	101	103	80-120	1	30
Batch number: 14169162401A	Sample number(s): 7494356-7494359									
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: B141751AA	Sample number(s): 7494356 UNSPK: P497908								
Acetone	99	82	31-195	19	30				
Acrolein	34	35	10-165	3	30				
Acrylonitrile	90	72	48-139	24	30				
t-Amyl methyl ether	101	86	50-132	17	30				
Benzene	112	97	55-143	15	30				
Bromobenzene	104	73	43-139	35*	30				
Bromochloromethane	104	90	60-137	15	30				
Bromodichloromethane	94	79	53-136	18	30				
Bromoform	74	60	50-144	21	30				
Bromomethane	75	67	42-168	13	30				
2-Butanone	84	74	37-163	13	30				
t-Butyl alcohol	134	90	47-153	41*	30				
n-Butylbenzene	107	76	30-146	35*	30				
sec-Butylbenzene	124	88	33-157	35*	30				

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480924
Reported: 07/07/14 at 12:18 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
tert-Butylbenzene	126	90	41-152	34*	30				
Carbon Disulfide	98	91	48-146	9	30				
Carbon Tetrachloride	103	94	51-165	10	30				
Chlorobenzene	107	84	49-135	25	30				
Chloroethane	71	64	39-152	11	30				
2-Chloroethyl Vinyl Ether	85	72	32-139	18	30				
Chloroform	113	98	61-142	15	30				
1-Chlorohexane	114	88	70-130	27	30				
Chloromethane	109	96	36-143	14	30				
2-Chlorotoluene	113	80	42-146	36*	30				
4-Chlorotoluene	108	76	39-145	36*	30				
Chlorotrifluoroethene	108	106	70-130	1	30				
1,2-Dibromo-3-chloropropane	75	56	34-165	30	30				
Dibromochloromethane	90	71	51-128	24	30				
1,2-Dibromoethane	106	85	54-129	23	30				
Dibromomethane	98	84	57-130	16	30				
1,2-Dichlorobenzene	87	60	36-133	39*	30				
1,3-Dichlorobenzene	91	61	34-134	40*	30				
1,4-Dichlorobenzene	89	61	35-136	39*	30				
Dichlorodifluoromethane	114	99	26-151	14	30				
1,1-Dichloroethane	114	100	63-142	14	30				
1,2-Dichloroethane	107	91	54-143	17	30				
1,1-Dichloroethene	118	108	61-149	10	30				
cis-1,2-Dichloroethene	113	99	67-135	15	30				
trans-1,2-Dichloroethene	125	107	64-144	17	30				
1,2-Dichloropropane	110	93	54-144	17	30				
1,3-Dichloropropane	108	87	51-140	22	30				
2,2-Dichloropropane	111	101	53-147	11	30				
1,1-Dichloropropene	112	108	54-145	5	30				
cis-1,3-Dichloropropene	96	82	45-137	17	30				
trans-1,3-Dichloropropene	99	80	51-134	22	30				
Ethyl t-butyl ether	106	90	58-124	17	30				
Ethylbenzene	116	93	44-141	23	30				
Freon 113	110	98	56-156	13	30				
Freon 133a	123	123	61-131	2	30				
Hexachlorobutadiene	80	55	10-155	38*	30				
2-Hexanone	88	75	32-160	17	30				
di-Isopropyl ether	114	97	59-133	17	30				
Isopropylbenzene	114	91	38-144	23	30				
p-Isopropyltoluene	116	82	29-152	35*	30				
Methyl Iodide	109	98	52-139	12	30				
Methyl Tertiary Butyl Ether	107	87	55-129	21	30				
4-Methyl-2-pentanone	88	77	46-139	15	30				
Methylene Chloride	113	97	60-149	16	30				
n-Propylbenzene	125	90	39-157	33*	30				
Styrene	99	77	35-134	26	30				
1,1,1,2-Tetrachloroethane	100	79	55-139	25	30				
1,1,2,2-Tetrachloroethane	102	75	29-182	32*	30				
Tetrachloroethene	118	97	42-149	21	30				
Toluene	120	98	50-146	20	30				
1,2,3-Trichlorobenzene	45	30	10-140	43*	30				
1,2,4-Trichlorobenzene	51	34	10-136	42*	30				

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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480924
Reported: 07/07/14 at 12:18 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
1,1,1-Trichloroethane	99	91	52-146	9	30				
1,1,2-Trichloroethane	109	87	58-152	23	30				
Trichloroethene	112	98	53-144	14	30				
Trichlorofluoromethane	108	96	47-163	12	30				
1,2,3-Trichloropropane	109	81	36-180	30	30				
1,2,4-Trimethylbenzene	113	79	37-149	37*	30				
1,3,5-Trimethylbenzene	122	86	38-150	36*	30				
Vinyl Acetate	18*	29	21-139	46*	30				
Vinyl Chloride	115	102	50-154	13	30				
m+p-Xylene	115	92	44-137	23	30				
o-Xylene	110	87	42-137	25	30				
Batch number: 14169162401A	Sample number(s): 7494356-7494359					BKG: 7494357			
14a Moisture Content by 160.3						6.6	7.9	18	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12a Volatile Organics EPA8260B
Batch number: B141642AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7494357	105	103	97	94
7494358	105	101	96	93
7494359	109	111	97	94
Blank	107	108	98	93
LCS	105	103	100	104
LCSD	104	103	100	99
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 12a Volatile Organics EPA8260B
Batch number: B141751AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7494356	102	112	100	99
Blank	99	101	101	97
LCS	101	102	100	99
MS	101	104	107	91
MSD	102	106	103	96
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141701AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480924
Reported: 07/07/14 at 12:18 PM

Surrogate Quality Control

7494355	100	102	100	97
Blank	99	102	99	97
LCS	100	102	100	100
LCSD	99	102	101	100
Limits:	86-118	80-120	88-110	86-115

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

13013 1480924 7494355-59

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/10/2014
CarrierName: FedEx
AirbillNo: 770258229814

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140610-02
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate Confirm 6850/6860	Perchlorate 314.0/331	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc. Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
TB2-061014	6/10/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																		X																		
SVL-551-SA6-SB-4.0-5.0	6/10/14 09:45	SO	None	3 - Encore	10 day																		X																		
SVL-551-SA6-SB-4.0-5.0	6/10/14 09:45	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture
SVL-562-SA5B-SB-8.0-9.0	6/10/14 14:45	SO	None	3 - Encore	10 day																		X																		
SVL-562-SA5B-SB-8.0-9.0	6/10/14 14:45	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture
SVL-549-SA5C-SB-6.3-6.8	6/10/14 14:23	SO	None	3 - Encore	10 day																		X																		
SVL-549-SA5C-SB-6.3-6.8	6/10/14 14:23	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture
SVL-561-SA5C-SB-10.5-11.0	6/10/14 13:24	SO	None	3 - Encore	10 day																		X																		
SVL-561-SA5C-SB-10.5-11.0	6/10/14 13:24	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture

Special Instructions:

Sampler: Andrew Payne Rob Ellis

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Steff Mypel	06/10/14	1600									
										6-11-14	915

Soil Vapor 1 of 1

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 16982

Group Number(s): 1480924

Client: CDM

SSFL

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	06/11/2014 9:15
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Brandy Barclay (2299) at 09:44 on 06/11/2014

Samples Chilled Details: SSFL

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT121	0.8	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

July 07, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 06/11/2014
Group Number: 1480926
SDG: PH227
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB1-061014 Water	7494361
FDG2-SL-630-SA8-SB-0.0-0.5 Soil	7494362
FDG2-SL-630-SA8-SB-4.0-5.0 Soil	7494363
FDG2-SL-630-SA8-SB-4.0-5.0MS Soil	7494364
FDG2-SL-630-SA8-SB-4.0-5.0MSD Soil	7494365
FDG2-SL-930-SA8-SB-4.0-5.0 Soil	7494366
FDG2-SL-630-SA8-SB-7.0-8.0 Soil	7494367
FDG2-SL-612-SA5D-SB-0.0-0.5 Soil	7494368
FDG2-SL-564-NBZ-SB-0.0-0.5 Soil	7494369
FDG2-SL-565-NBZ-SB-0.0-0.5 Soil	7494370
FDG2-SL-566-NBZ-SB-0.0-0.5 Soil	7494371
FDG2-SL-576-NBZ-SB-0.0-0.5 Soil	7494372
FDG2-SL-576-NBZ-SB-2.0-3.0 Soil	7494373
FDG2-SL-613-SA5D-SB-0.0-0.5 Soil	7494374
FDG2-SL-614-SA5D-SB-0.0-0.5 Soil	7494375

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: TB1-061014 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7494361
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 08:00

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB161 SDG#: PH227-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14167A94A	06/17/2014 12:00	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14167A94A	06/17/2014 12:00	Laura M Krieger	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-630-SA8-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7494362
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 07:55 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63000 SDG#: PH227-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	3.3	J	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	21		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	35		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	3.3	J	5.2	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	5.2	J	10	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	4.2		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141640001A	06/17/2014 09:47	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141680008A	06/23/2014 19:02	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141680008A	06/17/2014 16:45	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141640001A	06/13/2014 18:00	Sally L Appleyard	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14169162401B	06/18/2014 20:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-630-SA8-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7494363
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 08:30 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63040 SDG#: PH227-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.2	U	1.2	0.2	27.06
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	3.7	J	5.5	2.2	1
12952	EFH (C21-C30)	n.a.	26		5.5	2.2	1
12952	EFH (C30-C40)	n.a.	42		11	4.4	1
12952	EFH (C8-C11)	n.a.	5.5	U	5.5	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	14		5.5	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	14		11	4.4	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	8.5		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14164A16A	06/13/2014 22:49	Marie D Beamenderfer	27.06
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201416234775	06/11/2014 15:40	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201416234775	06/11/2014 15:40	Mitchell R Washel	n.a.
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141640001A	06/17/2014 10:08	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141680008A	06/23/2014 20:13	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141680008A	06/17/2014 16:45	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141640001A	06/13/2014 18:00	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-630-SA8-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7494363
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 08:30 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63040 SDG#: PH227-03BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14169162401B	06/18/2014 20:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-630-SA8-SB-4.0-5.0MS Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7494364
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 08:30 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63040 SDG#: PH227-03MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	11		1.3	0.3	28.67
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.7		5.5	2.2	1
12952	EFH (C15-C20)	n.a.	12		5.5	2.2	1
12952	EFH (C21-C30)	n.a.	42		5.5	2.2	1
12952	EFH (C30-C40)	n.a.	60		11	4.4	1
12952	EFH (C8-C11)	n.a.	5.5		5.5	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	4.1	J	5.5	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	6.7		5.5	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	20		5.5	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	22		11	4.4	1
13197	EFH C8-C11 w/ SiGel	n.a.	3.2	J	5.5	2.2	1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	8.5		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14164A16A	06/13/2014 23:27	Marie D Beamenderfer	28.67
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201416234775	06/11/2014 15:41	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201416234775	06/11/2014 15:41	Mitchell R Washel	n.a.
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141640001A	06/17/2014 10:29	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141680008A	06/23/2014 20:47	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141680008A	06/17/2014 16:45	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141640001A	06/13/2014 18:00	Sally L Appleyard	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14169162401B	06/18/2014 20:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-630-SA8-SB-4.0-5.0MSD Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7494365
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 08:30 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63040 SDG#: PH227-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	10		1.2	0.2	26.71
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	4.9	J	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	14		5.5	2.2	1
12952	EFH (C21-C30)	n.a.	55		5.5	2.2	1
12952	EFH (C30-C40)	n.a.	78		11	4.4	1
12952	EFH (C8-C11)	n.a.	4.6	J	5.5	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	4.0	J	5.5	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	7.3		5.5	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	29		5.5	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	32		11	4.4	1
13197	EFH C8-C11 w/ SiGel	n.a.	3.1	J	5.5	2.2	1

The reverse surrogate, capric acid, is present at <1%.
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	8.5		0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	8.5		0.10	0.10	1

The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14164A16A	06/14/2014 00:04	Marie D Beamenderfer	26.71
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201416234775	06/11/2014 15:42	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201416234775	06/11/2014 15:42	Mitchell R Washel	n.a.
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141640001A	06/17/2014 10:51	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141680008A	06/23/2014 21:08	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141680008A	06/17/2014 16:45	JoElla L Rice	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-630-SA8-SB-4.0-5.0MSD Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7494365
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 08:30 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63040 SDG#: PH227-03MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12959	EFH soil ext.(microwave)	SW-846 3546	1	141640001A	06/13/2014 18:00	Sally L Appleyard	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14169162401B	06/18/2014 20:08	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	14169162401B	06/18/2014 20:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-930-SA8-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7494366
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 08:40 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

93040 SDG#: PH227-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.2	U	1.2	0.2	27.29
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	4.8	J	5.5	2.2	1
12952	EFH (C21-C30)	n.a.	35		5.5	2.2	1
12952	EFH (C30-C40)	n.a.	61		11	4.4	1
12952	EFH (C8-C11)	n.a.	5.5	U	5.5	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	19		5.5	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	21		11	4.4	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	8.8		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14164A16A	06/14/2014 01:20	Marie D Beamenderfer	27.29
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201416234775	06/11/2014 15:44	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201416234775	06/11/2014 15:44	Mitchell R Washel	n.a.
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141640001A	06/17/2014 11:12	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141680008A	06/23/2014 21:30	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141680008A	06/17/2014 16:45	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141640001A	06/13/2014 18:00	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-930-SA8-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7494366
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 08:40 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

93040 SDG#: PH227-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14169162401B	06/18/2014 20:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-630-SA8-SB-7.0-8.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7494367
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 09:05 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63078 SDG#: PH227-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.2	U	1.2	0.2	26.6
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.4	U	5.4	2.2	1
12952	EFH (C15-C20)	n.a.	3.4	J	5.4	2.2	1
12952	EFH (C21-C30)	n.a.	24		5.4	2.2	1
12952	EFH (C30-C40)	n.a.	50		11	4.3	1
12952	EFH (C8-C11)	n.a.	5.4	U	5.4	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	8.8		5.4	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	11		11	4.3	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.4	U	5.4	2.2	1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	8.0		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14164A16A	06/14/2014 01:58	Marie D Beamenderfer	26.6
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201416234775	06/11/2014 15:45	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201416234775	06/11/2014 15:45	Mitchell R Washel	n.a.
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141640001A	06/17/2014 11:34	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141680008A	06/23/2014 21:59	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141680008A	06/17/2014 16:45	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141640001A	06/13/2014 18:00	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-630-SA8-SB-7.0-8.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7494367
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 09:05 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

63078 SDG#: PH227-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14169162401B	06/18/2014 20:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-612-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7494368
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 11:00 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61200 SDG#: PH227-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	26	U	26	10	5
12952	EFH (C15-C20)	n.a.	20	J	26	10	5
12952	EFH (C21-C30)	n.a.	140		26	10	5
12952	EFH (C30-C40)	n.a.	250		51	21	5
12952	EFH (C8-C11)	n.a.	13	J	26	10	5
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	10		5.1	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	26		10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.1	1

The reverse surrogate, capric acid, is present at <1%.
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.6		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141640001A	06/18/2014 18:11	Heather E Williams	5
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141680008A	06/23/2014 22:34	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141680008A	06/17/2014 16:45	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141640001A	06/13/2014 18:00	Sally L Appleyard	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14169162401B	06/18/2014 20:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-564-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7494369
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 10:05 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56400 SDG#: PH227-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	1.6	J	1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	3.1		1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	19		18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	1.8		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	J	18	6.1	1
12969	Fluoranthene	206-44-0	1.8		1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	0.74	J	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.1	J	1.7	0.68	1
12969	Naphthalene	91-20-3	2.6		1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	1.5	J	1.7	0.68	1
12969	Pyrene	129-00-0	1.4	J	1.7	0.68	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
N-Nitrosodimethylamine

Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.1	1
13099	PCB-1242	53469-21-9	17	U	17	4.1	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	17	U	17	4.5	1
13099	PCB-1260	11096-82-5	17	U	17	3.9	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	3.6	J	5.1	2.0	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-564-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7494369
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 10:05 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56400 SDG#: PH227-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	23		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	30		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	2.5	J	5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	4.4	J	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
	The reverse surrogate, capric acid, is present at <1%.						
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,900		40.3	7.27	1
06944	Antimony	7440-36-0	4.03	U	4.03	0.746	1
06935	Arsenic	7440-38-2	6.44		4.03	0.706	1
06946	Barium	7440-39-3	86.3		1.01	0.0333	1
06947	Beryllium	7440-41-7	0.580	J	1.01	0.0676	1
07914	Boron	7440-42-8	3.95	J	10.1	0.847	1
06949	Cadmium	7440-43-9	1.01	U	1.01	0.0766	1
01650	Calcium	7440-70-2	3,610		20.2	3.37	1
06951	Chromium	7440-47-3	21.7		3.02	0.161	1
06952	Cobalt	7440-48-4	5.13		1.01	0.0998	1
06953	Copper	7440-50-8	9.70		2.02	0.292	1
01654	Iron	7439-89-6	21,300		40.3	3.65	1
06955	Lead	7439-92-1	11.2		3.02	0.504	1
01656	Lithium	7439-93-2	22.4		4.0	0.34	1
01657	Magnesium	7439-95-4	5,450		10.1	1.68	1
06958	Manganese	7439-96-5	353		1.01	0.0837	1
06960	Molybdenum	7439-98-7	0.298	J	2.02	0.171	1
06961	Nickel	7440-02-0	12.9		2.02	0.131	1
10145	Phosphorus	7723-14-0	382		10.1	2.91	1
01662	Potassium	7440-09-7	3,170		101	8.41	1
01667	Sodium	7440-23-5	73.1	J	101	16.8	1
06969	Tin	7440-31-5	2.76	J	10.1	0.222	1
06970	Titanium	7440-32-6	1,120		1.01	0.171	1
06971	Vanadium	7440-62-2	42.2		1.01	0.131	1
06972	Zinc	7440-66-6	54.1		4.03	0.202	1
10146	Zirconium	7440-67-7	2.96	J	5.04	0.847	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.459		0.403	0.101	2
06142	Silver	7440-22-4	0.0534	J	0.202	0.0262	2
06144	Strontium	7440-24-6	22.9		0.403	0.0686	2
06145	Thallium	7440-28-0	0.225		0.202	0.0302	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0322		0.0158	0.0095	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-564-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7494369
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 10:05 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56400 SDG#: PH227-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 22.4 C.	n.a.	5.92	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	1.8	0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14163SLB026	06/18/2014 09:33	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14163SLB026	06/12/2014 17:00	JoElla L Rice	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141690028A	06/23/2014 10:32	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141690028A	06/19/2014 09:45	Katheryne V Sponheimer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141640001A	06/17/2014 23:04	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141680008A	06/23/2014 22:55	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141680008A	06/17/2014 16:45	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141640001A	06/13/2014 18:00	Sally L Appleyard	1
01643	Aluminum	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-564-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7494369
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 10:05 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56400 SDG#: PH227-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06958	Manganese	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141680637002	06/19/2014 16:50	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141680637002B	06/19/2014 07:04	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141680637002A	06/19/2014 07:04	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141680637002A	06/19/2014 07:04	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141680637002A	06/19/2014 07:04	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141680638002	06/19/2014 10:32	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141680637002	06/18/2014 12:24	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141680638002	06/18/2014 14:47	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14162039402A	06/11/2014 21:25	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14169162401B	06/18/2014 20:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-565-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7494370
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 09:35 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56500 SDG#: PH227-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.67	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	2.2		1.7	0.67	1
12969	Benzo(a)pyrene	50-32-8	0.81	J	1.7	0.67	1
12969	Benzo(b)fluoranthene	205-99-2	2.1		1.7	0.67	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.67	1
12969	Benzo(k)fluoranthene	207-08-9	5.4		1.7	0.67	1
12969	Butylbenzylphthalate	85-68-7	120		18	6.0	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.0	1
12969	Chrysene	218-01-9	2.9		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.67	1
12969	Diethylphthalate	84-66-2	18	U	18	6.0	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.0	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	54		18	6.0	1
12969	Fluoranthene	206-44-0	1.9		1.7	0.67	1
12969	Fluorene	86-73-7	1.3	J	1.7	0.67	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.67	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.67	1
12969	2-Methylnaphthalene	91-57-6	0.95	J	1.7	0.67	1
12969	Naphthalene	91-20-3	1.7		1.7	0.67	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.67	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.0	1
12969	Phenanthrene	85-01-8	1.1	J	1.7	0.67	1
12969	Pyrene	129-00-0	1.5	J	1.7	0.67	1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: chrysene						
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.1	1
13099	PCB-1232	11141-16-5	17	U	17	4.1	1
13099	PCB-1242	53469-21-9	17	U	17	4.1	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	7.5	J	17	4.4	1
13099	PCB-1260	11096-82-5	17	U	17	3.9	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	2.4	J	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	6.7		5.1	2.0	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-565-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7494370
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 09:35 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56500 SDG#: PH227-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	45		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	61		10	4.1	1
12952	EFH (C8-C11)	n.a.	6.4		5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	3.3	J	5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	4.8	J	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
	Due to the matrix of the sample extract, capric acid recovery can not be determined.						
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,300		39.2	7.07	1
06944	Antimony	7440-36-0	3.92	U	3.92	0.725	1
06935	Arsenic	7440-38-2	6.75		3.92	0.686	1
06946	Barium	7440-39-3	65.9		0.980	0.0323	1
06947	Beryllium	7440-41-7	0.519	J	0.980	0.0657	1
07914	Boron	7440-42-8	3.99	J	9.80	0.823	1
06949	Cadmium	7440-43-9	0.980	U	0.980	0.0745	1
01650	Calcium	7440-70-2	3,510		19.6	3.27	1
06951	Chromium	7440-47-3	21.6		2.94	0.157	1
06952	Cobalt	7440-48-4	5.33		0.980	0.0970	1
06953	Copper	7440-50-8	9.70		1.96	0.284	1
01654	Iron	7439-89-6	21,800		39.2	3.55	1
06955	Lead	7439-92-1	11.1		2.94	0.490	1
01656	Lithium	7439-93-2	25.9		3.9	0.33	1
01657	Magnesium	7439-95-4	6,380		9.80	1.64	1
06958	Manganese	7439-96-5	321		0.980	0.0814	1
06960	Molybdenum	7439-98-7	0.345	J	1.96	0.167	1
06961	Nickel	7440-02-0	12.6		1.96	0.127	1
10145	Phosphorus	7723-14-0	409		9.80	2.83	1
01662	Potassium	7440-09-7	2,870		98.0	8.17	1
01667	Sodium	7440-23-5	77.3	J	98.0	16.4	1
06969	Tin	7440-31-5	2.64	J	9.80	0.216	1
06970	Titanium	7440-32-6	1,200		0.980	0.167	1
06971	Vanadium	7440-62-2	43.8		0.980	0.127	1
06972	Zinc	7440-66-6	55.2		3.92	0.196	1
10146	Zirconium	7440-67-7	2.66	J	4.90	0.823	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.426		0.392	0.0980	2
06142	Silver	7440-22-4	0.0588	J	0.196	0.0255	2
06144	Strontium	7440-24-6	16.0		0.392	0.0667	2
06145	Thallium	7440-28-0	0.266		0.196	0.0294	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0359		0.0162	0.0097	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-565-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7494370
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 09:35 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56500 SDG#: PH227-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 23.1 C.	n.a.	5.96	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	1.9	0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14169SLA026	06/24/2014 02:48	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	14169SLA026	06/19/2014 10:30	Anna E Stager	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141690028A	06/23/2014 11:37	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141690028A	06/19/2014 09:45	Katheryne V Sponheimer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141640001A	06/17/2014 23:26	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141680008A	06/23/2014 23:24	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141680008A	06/17/2014 16:45	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141640001A	06/13/2014 18:00	Sally L Appleyard	1
01643	Aluminum	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-565-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7494370
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 09:35 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56500 SDG#: PH227-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06958	Manganese	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141680637002	06/19/2014 16:54	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141680637002B	06/19/2014 07:06	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141680637002A	06/19/2014 07:06	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141680637002A	06/19/2014 07:06	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141680637002A	06/19/2014 07:06	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141680638002	06/19/2014 10:34	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141680637002	06/18/2014 12:24	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141680638002	06/18/2014 14:47	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14162039402A	06/11/2014 21:25	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14169162401B	06/18/2014 20:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-566-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7494371
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 08:50 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56600 SDG#: PH227-09

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.1	1
13099	PCB-1232	11141-16-5	17	U	17	4.1	1
13099	PCB-1242	53469-21-9	17	U	17	4.1	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	24		17	4.4	1
13099	PCB-1260	11096-82-5	17	U	17	3.9	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	25	U	25	10	5
12952	EFH (C15-C20)	n.a.	23	J	25	10	5
12952	EFH (C21-C30)	n.a.	210		25	10	5
12952	EFH (C30-C40)	n.a.	400		51	20	5
12952	EFH (C8-C11)	n.a.	25	U	25	10	5
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.5		5.1	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	61		5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	100		10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
	The reverse surrogate, capric acid, is present at <1%.						
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	10,500		39.0	7.04	1
06944	Antimony	7440-36-0	3.90	U	3.90	0.722	1
06935	Arsenic	7440-38-2	6.31		3.90	0.683	1
06946	Barium	7440-39-3	61.1		0.976	0.0322	1
06947	Beryllium	7440-41-7	0.436	J	0.976	0.0654	1
07914	Boron	7440-42-8	4.09	J	9.76	0.820	1
06949	Cadmium	7440-43-9	0.976	U	0.976	0.0742	1
01650	Calcium	7440-70-2	3,220		19.5	3.26	1
06951	Chromium	7440-47-3	14.2		2.93	0.156	1
06952	Cobalt	7440-48-4	3.66		0.976	0.0966	1
06953	Copper	7440-50-8	7.59		1.95	0.283	1
01654	Iron	7439-89-6	16,600		39.0	3.53	1
06955	Lead	7439-92-1	13.8		2.93	0.488	1
01656	Lithium	7439-93-2	19.2		3.9	0.33	1
01657	Magnesium	7439-95-4	4,040		9.76	1.63	1
06958	Manganese	7439-96-5	230		0.976	0.0810	1
06960	Molybdenum	7439-98-7	0.382	J	1.95	0.166	1
06961	Nickel	7440-02-0	8.64		1.95	0.127	1
10145	Phosphorus	7723-14-0	322		9.76	2.82	1
01662	Potassium	7440-09-7	2,840		97.6	8.14	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-566-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7494371
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 08:50 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56600 SDG#: PH227-09

CAT No.	Analysis Name		CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals		**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01667	Sodium		7440-23-5	60.0	J	97.6	16.3	1
06969	Tin		7440-31-5	2.34	J	9.76	0.215	1
06970	Titanium		7440-32-6	855		0.976	0.166	1
06971	Vanadium		7440-62-2	31.3		0.976	0.127	1
06972	Zinc		7440-66-6	50.4		3.90	0.195	1
10146	Zirconium		7440-67-7	1.86	J	4.88	0.820	1
		SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium		7782-49-2	0.324	J	0.390	0.0976	2
06142	Silver		7440-22-4	0.571		0.195	0.0254	2
06144	Strontium		7440-24-6	19.4		0.390	0.0664	2
06145	Thallium		7440-28-0	0.243		0.195	0.0293	2
		SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A		7439-97-6	0.375		0.0165	0.0099	1
Wet Chemistry		**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 23.3 C.		n.a.	6.19		0.0100	0.0100	1
Wet Chemistry		**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.		n.a.	1.5		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141690028A	06/23/2014 11:55	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141690028A	06/19/2014 09:45	Katheryne V Sponheimer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141640001A	06/18/2014 18:32	Heather E Williams	5
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141680008A	06/24/2014 04:34	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141680008A	06/17/2014 16:45	JoElla L Rice	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-566-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7494371
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 08:50 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56600 SDG#: PH227-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12959	EFH soil ext.(microwave)	SW-846 3546	1	141640001A	06/13/2014 18:00	Sally L Appleyard	1
01643	Aluminum	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141680637002	06/19/2014 17:06	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141680637002B	06/19/2014 07:13	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141680637002A	06/19/2014 07:13	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141680637002A	06/19/2014 07:13	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141680637002A	06/19/2014 07:13	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141680638002	06/19/2014 10:36	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141680637002	06/18/2014 12:24	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141680638002	06/18/2014 14:47	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14162039402A	06/11/2014 21:25	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14169162401B	06/18/2014 20:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-576-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7494372
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 12:35 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57600 SDG#: PH227-10

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.1	1
13099	PCB-1242	53469-21-9	17	U	17	4.1	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	17	U	17	4.5	1
13099	PCB-1260	11096-82-5	17	U	17	3.9	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	2.8	J	5.1	2.1	1
12952	EFH (C21-C30)	n.a.	18		5.1	2.1	1
12952	EFH (C30-C40)	n.a.	35		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	3.1	J	5.1	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	2.5		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141690028A	06/23/2014 12:14	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141690028A	06/19/2014 09:45	Katheryne V Sponheimer	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-576-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7494372
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 12:35 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57600 SDG#: PH227-10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141640001A	06/17/2014 14:03	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141680008A	06/23/2014 23:54	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141680008A	06/17/2014 16:45	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141640001A	06/13/2014 18:00	Sally L Appleyard	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14169162401B	06/18/2014 20:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-576-NBZ-SB-2.0-3.0 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7494373
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 13:15 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57623 SDG#: PH227-11

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.3	U	1.3	0.3	32.22
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.2	1
13099	PCB-1242	53469-21-9	18	U	18	4.2	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	18	U	18	4.5	1
13099	PCB-1260	11096-82-5	18	U	18	4.0	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	7.8		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	21		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.9		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-576-NBZ-SB-2.0-3.0 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7494373
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 13:15 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57623 SDG#: PH227-11

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14164A16A	06/14/2014 02:36	Marie D Beamenderfer	32.22
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201416234775	06/11/2014 15:46	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201416234775	06/11/2014 15:46	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141690028A	06/23/2014 12:33	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141690028A	06/19/2014 09:45	Katheryne V Sponheimer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141640001A	06/17/2014 11:55	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141680008A	06/24/2014 00:15	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141680008A	06/17/2014 16:45	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141640001A	06/13/2014 18:00	Sally L Appleyard	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14169162401B	06/18/2014 20:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-613-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7494374
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 13:25 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61300 SDG#: PH227-12

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	9.1		5.2	2.1	1
12952	EFH (C21-C30)	n.a.	48		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	82		10	4.2	1
12952	EFH (C8-C11)	n.a.	2.1	J	5.2	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	2.2	J	5.2	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	4.2	J	10	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.7		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141640001A	06/17/2014 23:48	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141680008A	06/24/2014 00:58	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141680008A	06/17/2014 16:45	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141640001A	06/13/2014 18:00	Sally L Appleyard	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14169162401B	06/18/2014 20:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-614-SA5D-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5D

LL Sample # SW 7494375
LL Group # 1480926
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/10/2014 12:45 by RR

Submitted: 06/11/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

61400 SDG#: PH227-13*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	2.1	J	5.1	2.1	1
12952	EFH (C21-C30)	n.a.	14		5.1	2.1	1
12952	EFH (C30-C40)	n.a.	36		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	2.8	J	5.1	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	8.2	J	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.6		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141640001A	06/17/2014 12:16	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141680008A	06/24/2014 01:20	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141680008A	06/17/2014 16:45	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141640001A	06/13/2014 18:00	Sally L Appleyard	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14169162401B	06/18/2014 20:08	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480926
Reported: 07/07/14 at 12:21 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14163SLB026	Sample number(s): 7494369									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	103		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	94		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	96		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	100		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	94		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	102		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	88		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	97		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	99		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	89		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	90		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	99		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	101		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	97		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	96		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	89		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	99		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	103		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	97		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	95		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	97		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	94		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	68*		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	90		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	93		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	89		80-119		
Batch number: 14169SLA026	Sample number(s): 7494370									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	111		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	105		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	105		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	113		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	104		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	112		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	97		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	100		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	109		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	100		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	100		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	114*		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	103		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	107		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	107		85-122		

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480926
Reported: 07/07/14 at 12:21 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	101		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	114		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	115		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	100		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	106		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	108		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	104		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	109		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	100		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	105		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	103		80-119		
Batch number: 14164A16A	Sample number(s): 7494363-7494367,7494373									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	77		67-120		
Batch number: 14167A94A	Sample number(s): 7494361									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	98	103	80-133	5	30
Batch number: 141690028A	Sample number(s): 7494369-7494373									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	82	83	36-106	0	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	100		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	105		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141640001A	Sample number(s): 7494362-7494375									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	93		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	96		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	98		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	86		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	76		60-115		
Batch number: 141680008A	Sample number(s): 7494362-7494375									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	71*		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	75*		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	76*		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	62		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	53*		60-115		
Batch number: 141680637002	Sample number(s): 7494369-7494371									
Aluminum	10.0	J	40.0	7.21	mg/kg	107		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	105		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	105		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	102		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	102		80-120		
Boron	1.76	J	10.0	0.840	mg/kg	99		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	103		80-120		
Calcium	24.6		20.0	3.34	mg/kg	105		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	103		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480926
Reported: 07/07/14 at 12:21 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Cobalt	1.00	U	1.00	0.0990	mg/kg	105		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	103		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	104		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	108		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	101		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	103		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	102		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	102		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	108		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	104		80-120		
Potassium	100 U		100.	8.34	mg/kg	99		80-120		
Sodium	100 U		100.	16.7	mg/kg	101		80-120		
Tin	1.46	J	10.0	0.220	mg/kg	101		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	104		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	104		80-120		
Zinc	0.386	J	4.00	0.200	mg/kg	103		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	102		80-120		
Batch number: 141680637002A	Sample number(s): 7494369-7494371									
Silver	0.200	U	0.200	0.0260	mg/kg	103		80-120		
Strontium	0.134	J	0.400	0.0680	mg/kg	100		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	102		80-120		
Batch number: 141680637002B	Sample number(s): 7494369-7494371									
Selenium	0.400	U	0.400	0.100	mg/kg	103		80-120		
Batch number: 141680638002	Sample number(s): 7494369-7494371									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	85		85-120		
Batch number: 14162039402A	Sample number(s): 7494369-7494371									
15a pH by 9045D						100		95-105		
Batch number: 14169162401B	Sample number(s): 7494362-7494375									
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14163SLB026	Sample number(s): 7494369 UNSPK: P492863								
Acenaphthene	88	80	48-127	10	30				
Acenaphthylene	82	75	60-128	10	30				
Anthracene	83	75	52-126	11	30				
Benzo(a)anthracene	86	79	44-143	8	30				
Benzo(a)pyrene	82	74	49-137	10	30				
Benzo(b)fluoranthene	105	95	26-142	10	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480926
Reported: 07/07/14 at 12:21 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Benzo(e)pyrene	84	77	63-111	9	30				
Benzo(g,h,i)perylene	42	38	33-141	11	30				
Benzo(k)fluoranthene	102	97	49-144	4	30				
Butylbenzylphthalate	101	81	64-156	18	30				
Di-n-butylphthalate	87	81	52-147	7	30				
Chrysene	88	80	43-141	9	30				
Dibenz(a,h)anthracene	51	46	25-145	9	30				
Diethylphthalate	87	79	66-140	9	30				
Dimethylphthalate	86	78	70-123	10	30				
Bis(2-Ethylhexyl)phthalate	51	64	48-164	11	30				
Fluoranthene	89	82	38-153	8	30				
Fluorene	89	82	57-130	9	30				
Indeno(1,2,3-cd)pyrene	49	44	26-139	10	30				
1-Methylnaphthalene	85	77	59-139	9	30				
2-Methylnaphthalene	87	79	46-147	10	30				
Naphthalene	86	78	52-136	9	30				
N-Nitrosodimethylamine	61	55	39-134	10	30				
Di-n-octylphthalate	115	109	52-162	6	30				
Phenanthrene	85	77	50-137	10	30				
Pyrene	75	69	26-143	8	30				
Batch number: 14169SLA026	Sample number(s): 7494370 UNSPK: P501188								
Acenaphthene	90	91	48-127	3	30				
Acenaphthylene	90	90	60-128	1	30				
Anthracene	92	93	52-126	2	30				
Benzo(a)anthracene	98	103	44-143	7	30				
Benzo(a)pyrene	86	88	49-137	3	30				
Benzo(b)fluoranthene	112	121	26-142	8	30				
Benzo(e)pyrene	87	89	63-111	4	30				
Benzo(g,h,i)perylene	47	43	33-141	8	30				
Benzo(k)fluoranthene	96	98	49-144	3	30				
Butylbenzylphthalate	95	92	64-156	3	30				
Di-n-butylphthalate	91	91	52-147	1	30				
Chrysene	94	104	43-141	11	30				
Dibenz(a,h)anthracene	57	54	25-145	5	30				
Diethylphthalate	89	90	66-140	2	30				
Dimethylphthalate	89	89	70-123	1	30				
Bis(2-Ethylhexyl)phthalate	96	408*	48-164	125*	30				
Fluoranthene	103	129	38-153	23	30				
Fluorene	93	94	57-130	3	30				
Indeno(1,2,3-cd)pyrene	54	51	26-139	5	30				
1-Methylnaphthalene	90	91	59-139	2	30				
2-Methylnaphthalene	92	94	46-147	4	30				
Naphthalene	88	90	52-136	4	30				
N-Nitrosodimethylamine	86	91	39-134	7	30				
Di-n-octylphthalate	126	132	52-162	6	30				
Phenanthrene	92	106	50-137	15	30				
Pyrene	88	109	26-143	23	30				
Batch number: 14164A16A	Sample number(s): 7494363-7494367,7494373 UNSPK: 7494363								
11a TPH by EPA 8015B GRO	80	80	69-123	6	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480926
Reported: 07/07/14 at 12:21 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 141690028A	Sample number(s): 7494369-7494373 UNSPK: 7494369								
PCB-1016	96	78	41-135	22	50				
PCB-1260	102	83	40-134	22	50				
Batch number: 141640001A	Sample number(s): 7494362-7494375 UNSPK: 7494363								
EFH (C12-C14)	103	89	49-123	15	20				
EFH (C15-C20)	105	126*	49-123	13	20				
EFH (C21-C30)	118	217*	49-123	28*	20				
EFH (C30-C40)	109	218*	49-123	26*	20				
EFH (C8-C11)	100	84	49-123	18	20				
Batch number: 141680008A	Sample number(s): 7494362-7494375 UNSPK: 7494363								
EFH C12-C14 w/ SiGel	75	72	49-123	3	20				
EFH C15-C20 w/ SiGel	82	89	49-123	8	20				
EFH C21-C30 w/ SiGel	46*	110	49-123	36*	20				
EFH C30-C40 w/ SiGel	47*	106	49-123	36*	20				
EFH C8-C11 w/ SiGel	59	56	49-123	4	20				
Batch number: 141680637002	Sample number(s): 7494369-7494371 UNSPK: P501188 BKG: P501188								
Aluminum	1032 (2)	806 (2)	75-125	3	20	15,000	15,000	0	20
Antimony	47*	49*	75-125	3	20	3.92 U	3.96 U	0 (1)	20
Arsenic	98	98	75-125	1	20	5.68	5.34	6 (1)	20
Barium	94	88	75-125	5	20	104	107	3	20
Beryllium	102	102	75-125	2	20	0.566 J	0.570 J	1 (1)	20
Boron	98	97	75-125	2	20	4.31 J	4.09 J	5 (1)	20
Cadmium	93	93	75-125	2	20	0.980 U	0.990 U	0 (1)	20
Calcium	150 (2)	103 (2)	75-125	7	20	2,210	2,360	7	20
Chromium	112	94	75-125	10	20	19.0	20.0	5	20
Cobalt	95	95	75-125	2	20	4.78	4.98	4 (1)	20
Copper	102	95	75-125	7	20	11.5	11.7	1	20
Iron	-493 (2)	-449 (2)	75-125	0	20	18,800	18,800	0	20
Lead	132*	84	75-125	28*	20	10.4	7.96	26* (1)	20
Lithium	103	108	75-125	2	20	20.1	18.9	6 (1)	20
Magnesium	95 (2)	21 (2)	75-125	4	20	4,030	4,040	0	20
Manganese	73 (2)	41 (2)	75-125	5	20	313	332	6	20
Molybdenum	95	95	75-125	2	20	0.404 J	0.410 J	1 (1)	20
Nickel	97	94	75-125	4	20	12.8	12.4	3	20
Phosphorus	92 (2)	151 (2)	75-125	10	20	424	434	2	20
Potassium	124	122	75-125	1	20	3,560	3,680	3	20
Sodium	103	105	75-125	0	20	76.0 J	72.5 J	5 (1)	20
Tin	89	89	75-125	2	20	2.54 J	2.52 J	1 (1)	20
Titanium	244 (2)	196 (2)	75-125	4	20	1,040	1,040	0	20
Vanadium	102	96	75-125	4	20	35.0	33.9	3	20
Zinc	95	93	75-125	2	20	57.1	56.0	2	20
Zirconium	97	99	75-125	0	20	2.95 J	3.36 J	13 (1)	20
Batch number: 141680637002A	Sample number(s): 7494369-7494371 UNSPK: P501188 BKG: P501188								
Silver	128*	128*	75-125	2	20	0.0414 J	0.0323 J	25* (1)	20
Strontium	148*	71*	75-125	21*	20	22.0	23.1	5	20
Thallium	125	115	75-125	6	20	0.266	0.255	4 (1)	20

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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480926
Reported: 07/07/14 at 12:21 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 141680637002B	Sample number(s): 7494369-7494371 UNSPK: P501188 BKG: P501188								
Selenium	116	116	75-125	1	20	0.265 J	0.259 J	2 (1)	20
Batch number: 141680638002	Sample number(s): 7494369-7494371 UNSPK: P501188 BKG: P501188								
3a Mercury 7471A	89	86	65-135	1	20	0.0200	0.0182	10 (1)	20
Batch number: 14162039402A	Sample number(s): 7494369-7494371 BKG: 7494369								
15a pH by 9045D						5.92	5.94	0	3
Batch number: 14169162401B	Sample number(s): 7494362-7494375 BKG: 7494363								
14a Moisture Content by 160.3						8.5	8.5	0	20
14a Moisture Content by 160.3						8.5	8.5	0	20
14a Moisture Content by 160.3						8.5	8.5	0	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14163SLB026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7494369	90	85	84
Blank	94	101	87
LCS	100	106	92
MS	90	97	85
MSD	82	91	77
Limits:	59-115	61-118	70-127

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14169SLA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7494370	100	105	79
Blank	103	107	90
LCS	104	109	94
MS	100	100	86
MSD	93	94	83
Limits:	59-115	61-118	70-127

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 14164A16A

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480926
Reported: 07/07/14 at 12:21 PM

Surrogate Quality Control

	Trifluorotoluene-F
7494363	92
7494364	81
7494365	75
7494366	82
7494367	85
7494373	70
Blank	101
LCS	94
MS	81
MSD	75
Limits:	50-142

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14167A94A

	Trifluorotoluene-F
7494361	84
Blank	85
LCS	93
LCSD	91
Limits:	63-135

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141690028A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7494369	95	86
7494370	91	82
7494371	76	67
7494372	86	81
7494373	92	82
Blank	66	62
LCS	104	95
LCSD	99	91
MS	107	101
MSD	81	75
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141640001A

	Chlorobenzene	Orthoterphenyl
7494362	85	82
7494363	94	91
7494364	97	95
7494365	92	84
7494366	84	89
7494367	87	91
7494368	93	91
7494369	97	95
7494370	94	92

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1480926
Reported: 07/07/14 at 12:21 PM

Surrogate Quality Control

7494371	115	110
7494372	92	96
7494373	87	89
7494374	97	96
7494375	93	91
Blank	95	101
LCS	92	91
MS	97	95
MSD	92	84
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141680008A

	Chlorobenzene	Orthoterphenyl
7494362	59	74
7494363	55	72
7494364	65	76
7494365	64	74
7494366	56	73
7494367	59	73
7494368	61	78
7494369	47	75
7494370	56	76
7494371	71	87
7494372	59	74
7494373	61	75
7494374	54	72
7494375	52	72
Blank	39	75
LCS	62	73
MS	65	76
MSD	64	74
Limits:	37-125	66-123

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

13013 1480926 7494361-75

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/10/2014
CarrierName: FedEx
AirbillNo: 770258229814

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140610-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate Confirm 6850/6860	Perchlorate 314.0/331	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate+Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
TB1-061014	6/10/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																				X																	
FDG2-SL-630-SA8-SB-0.0-0.5	6/10/14 07:55	SO	None	1 - SS-Sleeve	10 day																					X																
FDG2-SL-630-SA8-SB-4.0-5.0MS	6/10/14 08:30	SO	None	2 - 16 oz glass	10 day																					X																MS/MSD
FDG2-SL-630-SA8-SB-4.0-5.0MS	6/10/14 08:30	SO	None	6 - Encore	10 day																				X																MS/MSD
FDG2-SL-930-SA8-SB-4.0-5.0	6/10/14 08:40	SO	None	2 - 8 oz glass	10 day																					X																
FDG2-SL-930-SA8-SB-4.0-5.0	6/10/14 08:40	SO	None	2 - Encore	10 day																				X																
FDG2-SL-630-SA8-SB-7.0-8.0	6/10/14 09:05	SO	None	1 - SS-Sleeve	10 day																					X																
FDG2-SL-630-SA8-SB-7.0-8.0	6/10/14 09:05	SO	None	2 - Encore	10 day																				X																
FDG2-SL-612-SA5D-SB-0.0-0.5	6/10/14 11:00	SO	None	1 - SS-Sleeve	10 day																					X																
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/14 10:05	SO	None	2 - SS-Sleeve	10 day	X	X					X			X											X																
FDG2-SL-564-NBZ-SB-0.0-0.5	6/10/14 10:05	SO	None	1 - 4 oz glass	10 day													X																								
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/14 09:35	SO	None	2 - SS-Sleeve	10 day	X	X					X			X											X																
FDG2-SL-565-NBZ-SB-0.0-0.5	6/10/14 09:35	SO	None	1 - 4 oz glass	10 day													X																								
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/14 08:50	SO	None	2 - SS-Sleeve	10 day	X	X								X											X																
FDG2-SL-566-NBZ-SB-0.0-0.5	6/10/14 08:50	SO	None	1 - 4 oz glass	10 day													X																								
FDG2-SL-576-NBZ-SB-0.0-0.5	6/10/14 12:35	SO	None	1 - SS-Sleeve	10 day										X											X																
FDG2-SL-576-NBZ-SB-2.0-3.0	6/10/14 13:15	SO	None	2 - 8 oz glass	10 day										X											X																
FDG2-SL-576-NBZ-SB-2.0-3.0	6/10/14 13:15	SO	None	2 - Encore	10 day																				X																
FDG2-SL-613-SA5D-SB-0.0-0.5	6/10/14 13:25	SO	None	1 - SS-Sleeve	10 day																					X																
FDG2-SL-614-SA5D-SB-0.0-0.5	6/10/14 12:45	SO	None	1 - SS-Sleeve	10 day																					X																

Final Data Gap Block 2 1 of 1

Rec by Brandy Barr ELLE 6.11.14 915

SSFL Phase 3 Chain of Custody

13013 1480926 7494361-75

CDM Smith

DateShipped: 6/10/2014
CarrierName: FedEx
AirbillNo: 770258229814

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140610-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other

Special Instructions: For all EFH, silica gel cleanup required on half the extract. Analyze both extracts for EFH.

Sampler: Randy Roberts Sandy Do

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Sandy Mupel	06/10/14	1600									
									6.11.14	915	

Final Data Gap Block 2 1 of 1

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Sample Administration Receipt Documentation Log

Doc Log ID: 16982

Group Number(s): 1480926

Client: CDM

SSFL

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	06/11/2014 9:15
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Brandy Barclay (2299) at 09:44 on 06/11/2014

Samples Chilled Details: SSFL

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT121	0.8	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

July 07, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 06/12/2014
Group Number: 1481296
SDG: PH228
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB2-061114 Water	7496166
SVL-563-SA5B-SB-4.5-5.0 Soil	7496167
SVL-536-SA5B-SB-1.5-2.0 Soil	7496168
SVL-577-SA6-SB-1.0-2.0 Soil	7496169
SVL-569-SA5B-SB-2.5-3.0 Soil	7496170
EB1-061114 Water	7496171
EB2-061114 Water	7496172
EB3-061114 Water	7496173
EB4-061114 Water	7496174

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: TB2-061114 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7496166
LL Group # 1481296
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 08:00

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB211 SDG#: PH228-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	1	U	1	0.5	1
10335	Benzene	71-43-2	1	U	1	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	1	U	1	0.5	1
10335	Bromoform	75-25-2	4	U	4	0.5	1
10335	Bromomethane	74-83-9	1	U	1	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	1	U	1	0.5	1
10335	Chlorobenzene	108-90-7	1	U	1	0.5	1
10335	Chloroethane	75-00-3	1	U	1	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	1	U	1	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	1	U	1	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	1	U	1	0.5	1
10335	1,2-Dibromoethane	106-93-4	1	U	1	0.5	1
10335	Dibromomethane	74-95-3	1	U	1	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	1	U	1	0.5	1
10335	1,1-Dichloroethane	75-34-3	1	U	1	0.5	1
10335	1,2-Dichloroethane	107-06-2	1	U	1	0.5	1
10335	1,1-Dichloroethene	75-35-4	1	U	1	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	1	U	1	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	1	U	1	0.5	1
10335	1,2-Dichloropropane	78-87-5	1	U	1	0.5	1
10335	1,3-Dichloropropane	142-28-9	1	U	1	0.5	1
10335	2,2-Dichloropropane	594-20-7	1	U	1	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	1	U	1	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	1	U	1	0.5	1
10335	Ethyl t-butyl ether	637-92-3	1	U	1	0.5	1
10335	Ethylbenzene	100-41-4	1	U	1	0.5	1
10335	Freon 113	76-13-1	10	U	10	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: TB2-061114 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7496166
LL Group # 1481296
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 08:00

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB211 SDG#: PH228-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	1	U	1	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	1	U	1	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	1	U	1	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	3	U	3	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	1	U	1	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	1	U	1	0.5	1
10335	Tetrachloroethene	127-18-4	1	U	1	0.5	1
10335	Toluene	108-88-3	1	U	1	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	1	U	1	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	1	U	1	0.5	1
10335	Trichloroethene	79-01-6	1	U	1	0.5	1
10335	Trichlorofluoromethane	75-69-4	1	U	1	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	1	U	1	0.5	1
10335	m+p-Xylene	179601-23-1	1	U	1	0.5	1
10335	o-Xylene	95-47-6	1	U	1	0.5	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141701AA	06/19/2014 11:36	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141701AA	06/19/2014 11:36	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-563-SA5B-SB-4.5-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7496167
LL Group # 1481296
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 08:34 by AP

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56345 SDG#: PH228-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	19	U	19	7	0.91
10237	Acrolein	107-02-8	97	U	97	19	0.91
10237	Acrylonitrile	107-13-1	19	U	19	4	0.91
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.91
10237	Benzene	71-43-2	5	U	5	0.5	0.91
10237	Bromobenzene	108-86-1	5	U	5	1	0.91
10237	Bromochloromethane	74-97-5	5	U	5	1	0.91
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.91
10237	Bromoform	75-25-2	5	U	5	1	0.91
10237	Bromomethane	74-83-9	5	U	5	2	0.91
10237	2-Butanone	78-93-3	10	U	10	4	0.91
10237	t-Butyl alcohol	75-65-0	49	U	49	19	0.91
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.91
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.91
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.91
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.91
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.91
10237	Chlorobenzene	108-90-7	5	U	5	1	0.91
10237	Chloroethane	75-00-3	5	U	5	2	0.91
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.91
10237	Chloroform	67-66-3	5	U	5	1	0.91
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.91
10237	Chloromethane	74-87-3	5	U	5	2	0.91
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.91
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.91
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.91
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.91
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.91
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.91
10237	Dibromomethane	74-95-3	5	U	5	1	0.91
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.91
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.91
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.91
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.91
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.91
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.91
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.91
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.91
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.91
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.91
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.91
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.91
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.91
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.91
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.91
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.91
10237	Ethylbenzene	100-41-4	5	U	5	1	0.91
10237	Freon 113	76-13-1	5	U	5	2	0.91
10237	Freon 133a	75-88-7	5	U	5	2	0.91
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.91
10237	2-Hexanone	591-78-6	10	U	10	3	0.91

*=This limit was used in the evaluation of the final result

Sample Description: SVL-563-SA5B-SB-4.5-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7496167
LL Group # 1481296
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 08:34 by AP

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56345 SDG#: PH228-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.91
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.91
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.91
10237	Methyl Iodide	74-88-4	5	U	5	3	0.91
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.91
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.91
10237	Methylene Chloride	75-09-2	5	U	5	2	0.91
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.91
10237	Styrene	100-42-5	5	U	5	1	0.91
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.91
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.91
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.91
10237	Toluene	108-88-3	5	U	5	1	0.91
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.91
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.91
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.91
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.91
10237	Trichloroethene	79-01-6	5	U	5	1	0.91
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.91
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.91
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.91
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.91
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.91
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.91
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.91
10237	o-Xylene	95-47-6	5	U	5	1	0.91
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	6.1		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141642AA	06/14/2014 07:09	Stephanie A Selis	0.91
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201416334784	06/12/2014 16:03	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-563-SA5B-SB-4.5-5.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7496167
LL Group # 1481296
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 08:34 by AP

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56345 SDG#: PH228-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201416334784	06/12/2014 16:03	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201416334784	06/12/2014 14:31	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14170162401A	06/19/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-536-SA5B-SB-1.5-2.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7496168
LL Group # 1481296
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 10:02 by AP

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53615 SDG#: PH228-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	20	U	20	7	0.99
10237	Acrolein	107-02-8	100	U	100	20	0.99
10237	Acrylonitrile	107-13-1	20	U	20	4	0.99
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.99
10237	Benzene	71-43-2	5	U	5	0.5	0.99
10237	Bromobenzene	108-86-1	5	U	5	1	0.99
10237	Bromochloromethane	74-97-5	5	U	5	1	0.99
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.99
10237	Bromoform	75-25-2	5	U	5	1	0.99
10237	Bromomethane	74-83-9	5	U	5	2	0.99
10237	2-Butanone	78-93-3	10	U	10	4	0.99
10237	t-Butyl alcohol	75-65-0	51	U	51	20	0.99
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.99
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.99
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.99
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.99
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.99
10237	Chlorobenzene	108-90-7	5	U	5	1	0.99
10237	Chloroethane	75-00-3	5	U	5	2	0.99
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.99
10237	Chloroform	67-66-3	5	U	5	1	0.99
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.99
10237	Chloromethane	74-87-3	5	U	5	2	0.99
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.99
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.99
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.99
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.99
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.99
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.99
10237	Dibromomethane	74-95-3	5	U	5	1	0.99
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.99
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.99
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.99
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.99
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.99
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.99
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.99
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.99
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.99
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.99
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.99
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.99
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.99
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.99
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.99
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.99
10237	Ethylbenzene	100-41-4	5	U	5	1	0.99
10237	Freon 113	76-13-1	5	U	5	2	0.99
10237	Freon 133a	75-88-7	5	U	5	2	0.99
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.99
10237	2-Hexanone	591-78-6	10	U	10	3	0.99

*=This limit was used in the evaluation of the final result

Sample Description: SVL-536-SA5B-SB-1.5-2.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7496168
LL Group # 1481296
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 10:02 by AP

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53615 SDG#: PH228-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.99
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.99
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.99
10237	Methyl Iodide	74-88-4	5	U	5	3	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.99
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.99
10237	Methylene Chloride	75-09-2	5	U	5	2	0.99
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.99
10237	Styrene	100-42-5	5	U	5	1	0.99
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.99
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.99
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.99
10237	Toluene	108-88-3	5	U	5	1	0.99
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.99
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.99
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.99
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.99
10237	Trichloroethene	79-01-6	5	U	5	1	0.99
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.99
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.99
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.99
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.99
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.99
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.99
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.99
10237	o-Xylene	95-47-6	5	U	5	1	0.99
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	2.1		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141642AA	06/14/2014 07:31	Stephanie A Selis	0.99
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201416334784	06/12/2014 16:03	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-536-SA5B-SB-1.5-2.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7496168
LL Group # 1481296
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 10:02 by AP

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53615 SDG#: PH228-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201416334784	06/12/2014 16:03	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201416334784	06/12/2014 14:33	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14170162401A	06/19/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-577-SA6-SB-1.0-2.0 Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7496169
LL Group # 1481296
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 11:45 by AP

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57710 SDG#: PH228-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	20	U	20	7	0.96
10237	Acrolein	107-02-8	100	U	100	20	0.96
10237	Acrylonitrile	107-13-1	20	U	20	4	0.96
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.96
10237	Benzene	71-43-2	5	U	5	0.5	0.96
10237	Bromobenzene	108-86-1	5	U	5	1	0.96
10237	Bromochloromethane	74-97-5	5	U	5	1	0.96
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.96
10237	Bromoform	75-25-2	5	U	5	1	0.96
10237	Bromomethane	74-83-9	5	U	5	2	0.96
10237	2-Butanone	78-93-3	10	U	10	4	0.96
10237	t-Butyl alcohol	75-65-0	51	U	51	20	0.96
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.96
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.96
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.96
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.96
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.96
10237	Chlorobenzene	108-90-7	5	U	5	1	0.96
10237	Chloroethane	75-00-3	5	U	5	2	0.96
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.96
10237	Chloroform	67-66-3	5	U	5	1	0.96
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.96
10237	Chloromethane	74-87-3	5	U	5	2	0.96
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.96
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.96
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.96
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.96
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.96
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.96
10237	Dibromomethane	74-95-3	5	U	5	1	0.96
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.96
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.96
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.96
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.96
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.96
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.96
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.96
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.96
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.96
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.96
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.96
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.96
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.96
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.96
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.96
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.96
10237	Ethylbenzene	100-41-4	5	U	5	1	0.96
10237	Freon 113	76-13-1	5	U	5	2	0.96
10237	Freon 133a	75-88-7	5	U	5	2	0.96
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.96
10237	2-Hexanone	591-78-6	10	U	10	3	0.96

*=This limit was used in the evaluation of the final result

Sample Description: SVL-577-SA6-SB-1.0-2.0 Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7496169
LL Group # 1481296
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 11:45 by AP

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57710 SDG#: PH228-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.96
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.96
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.96
10237	Methyl Iodide	74-88-4	5	U	5	3	0.96
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.96
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.96
10237	Methylene Chloride	75-09-2	5	U	5	2	0.96
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.96
10237	Styrene	100-42-5	5	U	5	1	0.96
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.96
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.96
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.96
10237	Toluene	108-88-3	5	U	5	1	0.96
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.96
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.96
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.96
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.96
10237	Trichloroethene	79-01-6	5	U	5	1	0.96
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.96
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.96
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.96
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.96
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.96
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.96
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.96
10237	o-Xylene	95-47-6	5	U	5	1	0.96
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	5.0		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141642AA	06/14/2014 09:00	Stephanie A Selis	0.96
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201416334784	06/12/2014 16:03	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-577-SA6-SB-1.0-2.0 Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7496169
LL Group # 1481296
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 11:45 by AP

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57710 SDG#: PH228-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201416334784	06/12/2014 16:03	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201416334784	06/12/2014 14:35	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14170162401A	06/19/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-569-SA5B-SB-2.5-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7496170
LL Group # 1481296
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 10:54 by AP

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56925 SDG#: PH228-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	Acetone	67-64-1	19	U	19	6	0.89
10237	Acrolein	107-02-8	93	U	93	19	0.89
10237	Acrylonitrile	107-13-1	19	U	19	4	0.89
10237	t-Amyl methyl ether	994-05-8	5	U	5	0.9	0.89
10237	Benzene	71-43-2	5	U	5	0.5	0.89
10237	Bromobenzene	108-86-1	5	U	5	0.9	0.89
10237	Bromochloromethane	74-97-5	5	U	5	0.9	0.89
10237	Bromodichloromethane	75-27-4	5	U	5	0.9	0.89
10237	Bromoform	75-25-2	5	U	5	0.9	0.89
10237	Bromomethane	74-83-9	5	U	5	2	0.89
10237	2-Butanone	78-93-3	9	U	9	4	0.89
10237	t-Butyl alcohol	75-65-0	46	U	46	19	0.89
10237	n-Butylbenzene	104-51-8	5	U	5	0.9	0.89
10237	sec-Butylbenzene	135-98-8	5	U	5	0.9	0.89
10237	tert-Butylbenzene	98-06-6	5	U	5	0.9	0.89
10237	Carbon Disulfide	75-15-0	5	U	5	0.9	0.89
10237	Carbon Tetrachloride	56-23-5	5	U	5	0.9	0.89
10237	Chlorobenzene	108-90-7	5	U	5	0.9	0.89
10237	Chloroethane	75-00-3	5	U	5	2	0.89
10237	2-Chloroethyl Vinyl Ether	110-75-8	9	U	9	2	0.89
10237	Chloroform	67-66-3	5	U	5	0.9	0.89
10237	1-Chlorohexane	544-10-5	5	U	5	0.9	0.89
10237	Chloromethane	74-87-3	5	U	5	2	0.89
10237	2-Chlorotoluene	95-49-8	5	U	5	0.9	0.89
10237	4-Chlorotoluene	106-43-4	5	U	5	0.9	0.89
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.89
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.89
10237	Dibromochloromethane	124-48-1	5	U	5	0.9	0.89
10237	1,2-Dibromoethane	106-93-4	5	U	5	0.9	0.89
10237	Dibromomethane	74-95-3	5	U	5	0.9	0.89
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	0.9	0.89
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	0.9	0.89
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	0.9	0.89
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.89
10237	1,1-Dichloroethane	75-34-3	5	U	5	0.9	0.89
10237	1,2-Dichloroethane	107-06-2	5	U	5	0.9	0.89
10237	1,1-Dichloroethene	75-35-4	5	U	5	0.9	0.89
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.9	0.89
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.9	0.89
10237	1,2-Dichloropropane	78-87-5	5	U	5	0.9	0.89
10237	1,3-Dichloropropane	142-28-9	5	U	5	0.9	0.89
10237	2,2-Dichloropropane	594-20-7	5	U	5	0.9	0.89
10237	1,1-Dichloropropene	563-58-6	5	U	5	0.9	0.89
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	0.9	0.89
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	0.9	0.89
10237	Ethyl t-butyl ether	637-92-3	5	U	5	0.9	0.89
10237	Ethylbenzene	100-41-4	5	U	5	0.9	0.89
10237	Freon 113	76-13-1	5	U	5	2	0.89
10237	Freon 133a	75-88-7	5	U	5	2	0.89
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.89
10237	2-Hexanone	591-78-6	9	U	9	3	0.89

*=This limit was used in the evaluation of the final result

Sample Description: SVL-569-SA5B-SB-2.5-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7496170
LL Group # 1481296
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 10:54 by AP

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56925 SDG#: PH228-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	di-Isopropyl ether	108-20-3	5	U	5	0.9	0.89
10237	Isopropylbenzene	98-82-8	5	U	5	0.9	0.89
10237	p-Isopropyltoluene	99-87-6	5	U	5	0.9	0.89
10237	Methyl Iodide	74-88-4	5	U	5	3	0.89
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.89
10237	4-Methyl-2-pentanone	108-10-1	9	U	9	3	0.89
10237	Methylene Chloride	75-09-2	5	U	5	2	0.89
10237	n-Propylbenzene	103-65-1	5	U	5	0.9	0.89
10237	Styrene	100-42-5	5	U	5	0.9	0.89
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	0.9	0.89
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	0.9	0.89
10237	Tetrachloroethene	127-18-4	5	U	5	0.9	0.89
10237	Toluene	108-88-3	5	U	5	0.9	0.89
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	0.9	0.89
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	0.9	0.89
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	0.9	0.89
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	0.9	0.89
10237	Trichloroethene	79-01-6	5	U	5	0.9	0.89
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.89
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	0.9	0.89
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	0.9	0.89
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	0.9	0.89
10237	Vinyl Acetate	108-05-4	9	U	9	2	0.89
10237	Vinyl Chloride	75-01-4	5	U	5	0.9	0.89
10237	m+p-Xylene	179601-23-1	5	U	5	0.9	0.89
10237	o-Xylene	95-47-6	5	U	5	0.9	0.89
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	3.9		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141642AA	06/14/2014 07:53	Stephanie A Selis	0.89
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201416334784	06/12/2014 16:03	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-569-SA5B-SB-2.5-3.0 Soil
SSFL Phase 3 Subarea 5B

LL Sample # SW 7496170
LL Group # 1481296
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 10:54 by AP

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56925 SDG#: PH228-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201416334784	06/12/2014 16:03	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201416334784	06/12/2014 14:37	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14170162401A	06/19/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: EB1-061114 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7496171
LL Group # 1481296
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 07:18 by AP

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB111 SDG#: PH228-06EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	1	U	1	0.5	1
10335	Benzene	71-43-2	1	U	1	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	1	U	1	0.5	1
10335	Bromoform	75-25-2	4	U	4	0.5	1
10335	Bromomethane	74-83-9	1	U	1	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	1	U	1	0.5	1
10335	Chlorobenzene	108-90-7	1	U	1	0.5	1
10335	Chloroethane	75-00-3	1	U	1	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	1	U	1	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	1	U	1	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	1	U	1	0.5	1
10335	1,2-Dibromoethane	106-93-4	1	U	1	0.5	1
10335	Dibromomethane	74-95-3	1	U	1	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	1	U	1	0.5	1
10335	1,1-Dichloroethane	75-34-3	1	U	1	0.5	1
10335	1,2-Dichloroethane	107-06-2	1	U	1	0.5	1
10335	1,1-Dichloroethene	75-35-4	1	U	1	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	1	U	1	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	1	U	1	0.5	1
10335	1,2-Dichloropropane	78-87-5	1	U	1	0.5	1
10335	1,3-Dichloropropane	142-28-9	1	U	1	0.5	1
10335	2,2-Dichloropropane	594-20-7	1	U	1	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	1	U	1	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	1	U	1	0.5	1
10335	Ethyl t-butyl ether	637-92-3	1	U	1	0.5	1
10335	Ethylbenzene	100-41-4	1	U	1	0.5	1
10335	Freon 113	76-13-1	10	U	10	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: EB1-061114 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7496171
LL Group # 1481296
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 07:18 by AP

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB111 SDG#: PH228-06EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	1	U	1	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	1	U	1	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	1	U	1	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	4		3	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	1	U	1	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	1	U	1	0.5	1
10335	Tetrachloroethene	127-18-4	1	U	1	0.5	1
10335	Toluene	108-88-3	1	U	1	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	1	U	1	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	1	U	1	0.5	1
10335	Trichloroethene	79-01-6	1	U	1	0.5	1
10335	Trichlorofluoromethane	75-69-4	1	U	1	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	1	U	1	0.5	1
10335	m+p-Xylene	179601-23-1	1	U	1	0.5	1
10335	o-Xylene	95-47-6	1	U	1	0.5	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141701AA	06/19/2014 11:57	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141701AA	06/19/2014 11:57	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-061114 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7496172
LL Group # 1481296
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 07:20 by AP

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB211 SDG#: PH228-07EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	1	U	1	0.5	1
10335	Benzene	71-43-2	1	U	1	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	1	U	1	0.5	1
10335	Bromoform	75-25-2	4	U	4	0.5	1
10335	Bromomethane	74-83-9	1	U	1	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	1	U	1	0.5	1
10335	Chlorobenzene	108-90-7	1	U	1	0.5	1
10335	Chloroethane	75-00-3	1	U	1	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	1	U	1	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	1	U	1	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	1	U	1	0.5	1
10335	1,2-Dibromoethane	106-93-4	1	U	1	0.5	1
10335	Dibromomethane	74-95-3	1	U	1	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	1	U	1	0.5	1
10335	1,1-Dichloroethane	75-34-3	1	U	1	0.5	1
10335	1,2-Dichloroethane	107-06-2	1	U	1	0.5	1
10335	1,1-Dichloroethene	75-35-4	1	U	1	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	1	U	1	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	1	U	1	0.5	1
10335	1,2-Dichloropropane	78-87-5	1	U	1	0.5	1
10335	1,3-Dichloropropane	142-28-9	1	U	1	0.5	1
10335	2,2-Dichloropropane	594-20-7	1	U	1	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	1	U	1	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	1	U	1	0.5	1
10335	Ethyl t-butyl ether	637-92-3	1	U	1	0.5	1
10335	Ethylbenzene	100-41-4	1	U	1	0.5	1
10335	Freon 113	76-13-1	10	U	10	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-061114 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7496172
LL Group # 1481296
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 07:20 by AP

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB211 SDG#: PH228-07EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	1	U	1	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	1	U	1	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	1	U	1	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	4		3	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	1	U	1	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	1	U	1	0.5	1
10335	Tetrachloroethene	127-18-4	1	U	1	0.5	1
10335	Toluene	108-88-3	1	U	1	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	1	U	1	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	1	U	1	0.5	1
10335	Trichloroethene	79-01-6	1	U	1	0.5	1
10335	Trichlorofluoromethane	75-69-4	1	U	1	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	1	U	1	0.5	1
10335	m+p-Xylene	179601-23-1	1	U	1	0.5	1
10335	o-Xylene	95-47-6	1	U	1	0.5	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141701AA	06/19/2014 12:19	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141701AA	06/19/2014 12:19	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Sample Description: EB3-061114 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7496173
LL Group # 1481296
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 07:22 by AP

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB311 SDG#: PH228-08EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	1	U	1	0.5	1
10335	Benzene	71-43-2	1	U	1	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	1	U	1	0.5	1
10335	Bromoform	75-25-2	4	U	4	0.5	1
10335	Bromomethane	74-83-9	1	U	1	0.5	1
10335	2-Butanone	78-93-3	3	J	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	1	U	1	0.5	1
10335	Chlorobenzene	108-90-7	1	U	1	0.5	1
10335	Chloroethane	75-00-3	1	U	1	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	1	U	1	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	1	U	1	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	1	U	1	0.5	1
10335	1,2-Dibromoethane	106-93-4	1	U	1	0.5	1
10335	Dibromomethane	74-95-3	1	U	1	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	1	U	1	0.5	1
10335	1,1-Dichloroethane	75-34-3	1	U	1	0.5	1
10335	1,2-Dichloroethane	107-06-2	1	U	1	0.5	1
10335	1,1-Dichloroethene	75-35-4	1	U	1	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	1	U	1	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	1	U	1	0.5	1
10335	1,2-Dichloropropane	78-87-5	1	U	1	0.5	1
10335	1,3-Dichloropropane	142-28-9	1	U	1	0.5	1
10335	2,2-Dichloropropane	594-20-7	1	U	1	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	1	U	1	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	1	U	1	0.5	1
10335	Ethyl t-butyl ether	637-92-3	1	U	1	0.5	1
10335	Ethylbenzene	100-41-4	1	U	1	0.5	1
10335	Freon 113	76-13-1	10	U	10	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: EB3-061114 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7496173
LL Group # 1481296
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 07:22 by AP

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB311 SDG#: PH228-08EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	1	U	1	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	1	U	1	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	1	U	1	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	4		3	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	1	U	1	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	1	U	1	0.5	1
10335	Tetrachloroethene	127-18-4	1	U	1	0.5	1
10335	Toluene	108-88-3	1	U	1	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	1	U	1	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	1	U	1	0.5	1
10335	Trichloroethene	79-01-6	1	U	1	0.5	1
10335	Trichlorofluoromethane	75-69-4	1	U	1	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	1	U	1	0.5	1
10335	m+p-Xylene	179601-23-1	1	U	1	0.5	1
10335	o-Xylene	95-47-6	1	U	1	0.5	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141701AA	06/19/2014 12:40	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141701AA	06/19/2014 12:40	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Sample Description: EB4-061114 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7496174
LL Group # 1481296
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 07:24 by AP

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB411 SDG#: PH228-09EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	1	U	1	0.5	1
10335	Benzene	71-43-2	1	U	1	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	1	U	1	0.5	1
10335	Bromoform	75-25-2	4	U	4	0.5	1
10335	Bromomethane	74-83-9	1	U	1	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	1	U	1	0.5	1
10335	Chlorobenzene	108-90-7	1	U	1	0.5	1
10335	Chloroethane	75-00-3	1	U	1	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	1	U	1	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	1	U	1	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	1	U	1	0.5	1
10335	1,2-Dibromoethane	106-93-4	1	U	1	0.5	1
10335	Dibromomethane	74-95-3	1	U	1	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	1	U	1	0.5	1
10335	1,1-Dichloroethane	75-34-3	1	U	1	0.5	1
10335	1,2-Dichloroethane	107-06-2	1	U	1	0.5	1
10335	1,1-Dichloroethene	75-35-4	1	U	1	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	1	U	1	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	1	U	1	0.5	1
10335	1,2-Dichloropropane	78-87-5	1	U	1	0.5	1
10335	1,3-Dichloropropane	142-28-9	1	U	1	0.5	1
10335	2,2-Dichloropropane	594-20-7	1	U	1	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	1	U	1	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	1	U	1	0.5	1
10335	Ethyl t-butyl ether	637-92-3	1	U	1	0.5	1
10335	Ethylbenzene	100-41-4	1	U	1	0.5	1
10335	Freon 113	76-13-1	10	U	10	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: EB4-061114 Water
SSFL Phase 3 Subarea 5B

LL Sample # WW 7496174
LL Group # 1481296
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 07:24 by AP

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:21

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB411 SDG#: PH228-09EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	1	U	1	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	1	U	1	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	1	U	1	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	4		3	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	1	U	1	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	1	U	1	0.5	1
10335	Tetrachloroethene	127-18-4	1	U	1	0.5	1
10335	Toluene	108-88-3	1	U	1	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	1	U	1	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	1	U	1	0.5	1
10335	Trichloroethene	79-01-6	1	U	1	0.5	1
10335	Trichlorofluoromethane	75-69-4	1	U	1	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	1	U	1	0.5	1
10335	m+p-Xylene	179601-23-1	1	U	1	0.5	1
10335	o-Xylene	95-47-6	1	U	1	0.5	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141701AA	06/19/2014 13:02	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141701AA	06/19/2014 13:02	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481296
Reported: 07/07/14 at 12:21 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B141642AA	Sample number(s): 7496167-7496170								
Acetone	20 U	20.	7	ug/kg	114	103	41-149	10	30
Acrolein	100 U	100.	20	ug/kg	84	78	50-137	8	30
Acrylonitrile	20 U	20.	4	ug/kg	90	98	58-123	9	30
t-Amyl methyl ether	5 U	5.	1	ug/kg	94	99	63-130	5	30
Benzene	5 U	5.	0.5	ug/kg	102	103	80-120	1	30
Bromobenzene	5 U	5.	1	ug/kg	107	101	78-120	6	30
Bromochloromethane	5 U	5.	1	ug/kg	107	108	75-129	1	30
Bromodichloromethane	5 U	5.	1	ug/kg	100	102	75-120	2	30
Bromoform	5 U	5.	1	ug/kg	103	108	70-126	5	30
Bromomethane	5 U	5.	2	ug/kg	111	105	32-162	5	30
2-Butanone	10 U	10.	4	ug/kg	84	89	47-136	6	30
t-Butyl alcohol	50 U	50.	20	ug/kg	105	106	66-133	1	30
n-Butylbenzene	5 U	5.	1	ug/kg	102	95	72-120	8	30
sec-Butylbenzene	5 U	5.	1	ug/kg	99	92	69-120	7	30
tert-Butylbenzene	5 U	5.	1	ug/kg	105	95	75-120	9	30
Carbon Disulfide	5 U	5.	1	ug/kg	104	99	63-128	4	30
Carbon Tetrachloride	5 U	5.	1	ug/kg	109	109	69-130	0	30
Chlorobenzene	5 U	5.	1	ug/kg	106	106	80-120	0	30
Chloroethane	5 U	5.	2	ug/kg	101	99	17-171	2	30
2-Chloroethyl Vinyl Ether	10 U	10.	2	ug/kg	73	80	52-134	8	30
Chloroform	5 U	5.	1	ug/kg	108	108	80-120	0	30
1-Chlorohexane	5 U	5.	1	ug/kg	73	72	70-130	2	30
Chloromethane	5 U	5.	2	ug/kg	98	101	56-120	3	30
2-Chlorotoluene	5 U	5.	1	ug/kg	103	99	78-120	4	30
4-Chlorotoluene	5 U	5.	1	ug/kg	107	102	79-120	5	30
Chlorotrifluoroethene	5 U	5.	2	ug/kg	70	68	22-131	3	30
1,2-Dibromo-3-chloropropane	5 U	5.	2	ug/kg	94	94	50-132	0	30
Dibromochloromethane	5 U	5.	1	ug/kg	105	108	77-120	2	30
1,2-Dibromoethane	5 U	5.	1	ug/kg	102	107	80-120	5	30
Dibromomethane	5 U	5.	1	ug/kg	98	103	75-120	5	30
1,2-Dichlorobenzene	5 U	5.	1	ug/kg	109	101	80-120	8	30
1,3-Dichlorobenzene	5 U	5.	1	ug/kg	109	103	80-120	6	30
1,4-Dichlorobenzene	5 U	5.	1	ug/kg	107	101	80-120	6	30
Dichlorodifluoromethane	5 U	5.	2	ug/kg	105	100	26-137	4	30
1,1-Dichloroethane	5 U	5.	1	ug/kg	99	100	71-122	1	30
1,2-Dichloroethane	5 U	5.	1	ug/kg	108	108	66-136	0	30
1,1-Dichloroethene	5 U	5.	1	ug/kg	116	117	73-129	1	30
cis-1,2-Dichloroethene	5 U	5.	1	ug/kg	105	105	80-120	1	30
trans-1,2-Dichloroethene	5 U	5.	1	ug/kg	117	117	79-120	0	30
1,2-Dichloropropane	5 U	5.	1	ug/kg	96	97	77-120	1	30
1,3-Dichloropropane	5 U	5.	1	ug/kg	95	100	73-120	4	30
2,2-Dichloropropane	5 U	5.	1	ug/kg	104	105	72-123	1	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481296
Reported: 07/07/14 at 12:21 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/kg	106	107	77-120	0	30
cis-1,3-Dichloropropene	5	U	5.	1	ug/kg	96	99	74-120	3	30
trans-1,3-Dichloropropene	5	U	5.	1	ug/kg	96	100	69-120	4	30
Ethyl t-butyl ether	5	U	5.	1	ug/kg	93	98	59-134	5	30
Ethylbenzene	5	U	5.	1	ug/kg	105	104	80-120	1	30
Freon 113	5	U	5.	2	ug/kg	106	102	64-137	3	30
Freon 133a	5	U	5.	2	ug/kg	111	106	78-120	5	30
Hexachlorobutadiene	5	U	5.	2	ug/kg	110	104	46-130	6	30
2-Hexanone	10	U	10.	3	ug/kg	83	90	40-129	8	30
di-Isopropyl ether	5	U	5.	1	ug/kg	94	97	68-128	2	30
Isopropylbenzene	5	U	5.	1	ug/kg	106	105	76-120	1	30
p-Isopropyltoluene	5	U	5.	1	ug/kg	103	95	69-120	8	30
Methyl Iodide	5	U	5.	3	ug/kg	121	117	72-130	3	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/kg	103	106	69-126	3	30
4-Methyl-2-pentanone	10	U	10.	3	ug/kg	84	93	43-133	10	30
Methylene Chloride	5	U	5.	2	ug/kg	119	116	80-124	2	30
n-Propylbenzene	5	U	5.	1	ug/kg	103	97	77-120	7	30
Styrene	5	U	5.	1	ug/kg	106	107	76-120	2	30
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/kg	110	109	80-120	1	30
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/kg	95	90	71-123	5	30
Tetrachloroethene	5	U	5.	1	ug/kg	107	109	78-120	1	30
Toluene	5	U	5.	1	ug/kg	102	103	80-120	1	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/kg	104	102	64-120	2	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/kg	107	102	68-120	4	30
1,1,1-Trichloroethane	5	U	5.	1	ug/kg	98	98	63-135	0	30
1,1,2-Trichloroethane	5	U	5.	1	ug/kg	103	104	80-120	1	30
Trichloroethene	5	U	5.	1	ug/kg	106	107	80-120	1	30
Trichlorofluoromethane	5	U	5.	2	ug/kg	107	105	58-133	2	30
1,2,3-Trichloropropane	5	U	5.	1	ug/kg	104	98	71-123	5	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/kg	107	98	79-120	9	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/kg	106	99	78-120	7	30
Vinyl Acetate	10	U	10.	2	ug/kg	103	102	40-127	1	30
Vinyl Chloride	5	U	5.	1	ug/kg	106	103	59-120	3	30
m+p-Xylene	5	U	5.	1	ug/kg	105	106	80-120	1	30
o-Xylene	5	U	5.	1	ug/kg	104	105	80-120	1	30
Batch number: Y141701AA	Sample number(s): 7496166,7496171-7496174									
Acetone	20	U	20.	6	ug/l	82	85	43-149	4	30
Acrolein	100 U		100.	40	ug/l	97	94	52-129	3	30
Acrylonitrile	20	U	20.	4	ug/l	89	94	62-120	6	30
t-Amyl methyl ether	1	U	1.	0.5	ug/l	101	102	75-120	1	30
Benzene	1	U	1.	0.5	ug/l	103	105	78-120	1	30
Bromobenzene	5	U	5.	1	ug/l	102	103	80-120	1	30
Bromochloromethane	5	U	5.	1	ug/l	101	101	80-121	0	30
Bromodichloromethane	1	U	1.	0.5	ug/l	97	97	73-120	0	30
Bromoform	4	U	4.	0.5	ug/l	91	90	61-120	1	30
Bromomethane	1	U	1.	0.5	ug/l	92	95	58-120	3	30
2-Butanone	10	U	10.	3	ug/l	95	96	54-133	1	30
t-Butyl alcohol	50	U	50.	5	ug/l	115	113	75-120	2	30
n-Butylbenzene	5	U	5.	1	ug/l	106	107	68-120	1	30
sec-Butylbenzene	5	U	5.	1	ug/l	108	109	80-120	1	30
tert-Butylbenzene	5	U	5.	1	ug/l	104	106	73-120	2	30
Carbon Disulfide	5	U	5.	1	ug/l	86	90	58-126	4	30
Carbon Tetrachloride	1	U	1.	0.5	ug/l	100	103	74-130	3	30
Chlorobenzene	1	U	1.	0.5	ug/l	102	105	80-120	2	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481296
Reported: 07/07/14 at 12:21 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroethane	1	U	1.	0.5	ug/l	87	87	56-120	0	30
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/l	101	103	54-126	2	30
Chloroform	1	U	1.	0.5	ug/l	103	104	80-122	1	30
1-Chlorohexane	5	U	5.	1	ug/l	104	107	80-120	3	30
Chloromethane	1	U	1.	0.5	ug/l	104	97	63-120	7	30
2-Chlorotoluene	5	U	5.	1	ug/l	102	102	80-120	1	30
4-Chlorotoluene	5	U	5.	1	ug/l	101	102	80-120	1	30
Chlorotrifluoroethene	5	U	5.	2	ug/l	85	82	47-120	4	30
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/l	98	99	56-120	0	30
Dibromochloromethane	1	U	1.	0.5	ug/l	91	92	72-120	1	30
1,2-Dibromoethane	1	U	1.	0.5	ug/l	105	107	76-120	2	30
Dibromomethane	1	U	1.	0.5	ug/l	103	102	80-120	1	30
1,2-Dichlorobenzene	5	U	5.	1	ug/l	102	102	80-120	0	30
1,3-Dichlorobenzene	5	U	5.	1	ug/l	102	102	80-120	1	30
1,4-Dichlorobenzene	5	U	5.	1	ug/l	101	103	80-120	2	30
Dichlorodifluoromethane	1	U	1.	0.5	ug/l	85	84	48-132	1	30
1,1-Dichloroethane	1	U	1.	0.5	ug/l	103	105	80-120	2	30
1,2-Dichloroethane	1	U	1.	0.5	ug/l	105	105	65-135	0	30
1,1-Dichloroethene	1	U	1.	0.5	ug/l	94	98	76-124	4	30
cis-1,2-Dichloroethene	1	U	1.	0.5	ug/l	105	107	80-120	2	30
trans-1,2-Dichloroethene	1	U	1.	0.5	ug/l	103	106	80-120	3	30
1,2-Dichloropropane	1	U	1.	0.5	ug/l	101	102	80-120	1	30
1,3-Dichloropropane	1	U	1.	0.5	ug/l	101	104	80-120	3	30
2,2-Dichloropropane	1	U	1.	0.5	ug/l	103	106	67-124	3	30
1,1-Dichloropropene	5	U	5.	1	ug/l	106	107	80-120	0	30
cis-1,3-Dichloropropene	1	U	1.	0.5	ug/l	98	99	80-120	1	30
trans-1,3-Dichloropropene	1	U	1.	0.5	ug/l	100	100	76-120	1	30
Ethyl t-butyl ether	1	U	1.	0.5	ug/l	102	102	74-120	0	30
Ethylbenzene	1	U	1.	0.5	ug/l	101	102	79-120	1	30
Freon 113	10	U	10.	2	ug/l	82	85	67-127	4	30
Freon 133a	5	U	5.	2	ug/l	115	116	46-152	1	30
Hexachlorobutadiene	5	U	5.	2	ug/l	101	100	51-125	1	30
2-Hexanone	10	U	10.	3	ug/l	96	97	44-126	1	30
di-Isopropyl ether	1	U	1.	0.5	ug/l	104	104	65-120	0	30
Isopropylbenzene	5	U	5.	1	ug/l	103	104	77-120	1	30
p-Isopropyltoluene	5	U	5.	1	ug/l	105	106	80-120	1	30
Methyl Iodide	1	U	1.	0.5	ug/l	106	106	75-128	0	30
Methyl Tertiary Butyl Ether	1	U	1.	0.5	ug/l	99	101	75-120	2	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	97	98	51-124	1	30
Methylene Chloride	3	U	3.	2	ug/l	93	95	80-120	2	30
n-Propylbenzene	5	U	5.	1	ug/l	106	107	80-120	2	30
Styrene	5	U	5.	1	ug/l	101	103	80-120	2	30
1,1,1,2-Tetrachloroethane	1	U	1.	0.5	ug/l	100	103	80-120	2	30
1,1,2,2-Tetrachloroethane	1	U	1.	0.5	ug/l	102	104	70-120	2	30
Tetrachloroethene	1	U	1.	0.5	ug/l	101	104	80-120	3	30
Toluene	1	U	1.	0.5	ug/l	104	106	80-120	2	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	100	100	58-126	1	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	103	104	65-120	2	30
1,1,1-Trichloroethane	1	U	1.	0.5	ug/l	99	99	66-126	0	30
1,1,2-Trichloroethane	1	U	1.	0.5	ug/l	103	104	80-120	0	30
Trichloroethene	1	U	1.	0.5	ug/l	105	106	80-120	1	30
Trichlorofluoromethane	1	U	1.	0.5	ug/l	86	90	65-130	4	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	102	104	76-120	2	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	104	106	74-120	1	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	106	106	74-120	0	30
Vinyl Acetate	10	U	10.	2	ug/l	81	72	56-135	11	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481296
Reported: 07/07/14 at 12:21 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vinyl Chloride	1	U	1.	0.5	ug/l	102	95	63-120	7	30
m+p-Xylene	1	U	1.	0.5	ug/l	101	102	80-120	1	30
o-Xylene	1	U	1.	0.5	ug/l	101	103	80-120	1	30
Batch number: 14170162401A	Sample number(s): 7496167-7496170									
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14170162401A	Sample number(s): 7496167-7496170					BKG: 7496167			
14a Moisture Content by 160.3						6.1	6.8	11	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12a Volatile Organics EPA8260B
Batch number: B141642AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7496167	107	103	96	93
7496168	106	99	98	92
7496169	108	106	99	93
7496170	107	102	100	94
Blank	107	108	98	93
LCS	105	103	100	104
LCSD	104	103	100	99
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141701AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7496166	99	102	99	97
7496171	100	102	100	99
7496172	100	100	99	97
7496173	102	101	99	97
7496174	100	101	105	97
Blank	99	102	99	97
LCS	100	102	100	100
LCSD	99	102	101	100
Limits:	86-118	80-120	88-110	86-115

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481296
Reported: 07/07/14 at 12:21 PM

Surrogate Quality Control

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

13013 1481296 7496166-74

CDM Smith

DateShipped: 6/11/2014
CarrierName: FedEx
AirbillNo: 770273213274

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140611-02
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
TB2-061114	6/11/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																		X																		
SVL-563-SA5B-SB-4.5-5.0	6/11/14 08:34	SO	None	3 - Encore	10 day																		X																		
SVL-563-SA5B-SB-4.5-5.0	6/11/14 08:34	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture
SVL-536-SA5B-SB-1.5-2.0	6/11/14 10:02	SO	None	3 - Encore	10 day																		X																		
SVL-536-SA5B-SB-1.5-2.0	6/11/14 10:02	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture
SVL-577-SA6-SB-1.0-2.0	6/11/14 11:45	SO	None	3 - Encore	10 day																		X																		
SVL-577-SA6-SB-1.0-2.0	6/11/14 11:45	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture
SVL-569-SA5B-SB-2.5-3.0	6/11/14 10:54	SO	None	3 - Encore	10 day																		X																		
SVL-569-SA5B-SB-2.5-3.0	6/11/14 10:54	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture

Special Instructions:

Sampler: Andrew Payne Rob Ellis

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Shyf Mupel	6/11/14	1600									
									Bruce Ma	6.12.14	915

Soil Vapor 1 of 2

13013 1481296 74961166-74

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/11/2014
CarrierName: FedEx
AirbillNo: 770273213274

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140611-03
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7470 (Water)	Mercury 7471 (Soil)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate..Nitrite..TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
EB1-061114	6/11/14 07:18	WQ	HCl	3 - 40 mL Vial	10 day																		X																		
EB2-061114	6/11/14 07:20	WQ	HCl	3 - 40 mL Vial	10 day																		X																		
EB3-061114	6/11/14 07:22	WQ	HCl	3 - 40 mL Vial	10 day																		X																		
EB4-061114	6/11/14 07:24	WQ	HCl	3 - 40 mL Vial	10 day																		X																		

Special Instructions:

Sampler: Andrew Payne Rob Ellis

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Steff Myers	6/11/14	1600									
										6-12-14	915

Soil Vapor Sampling 2 of 2

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 17140

Group Number(s): 1481296

Client: CDM

SSFL

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	06/12/2014 9:15
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Brandy Barclay (2299) at 09:45 on 06/12/2014

Samples Chilled Details: SSFL

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT121	0.7	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

July 07, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 06/12/2014
Group Number: 1481297
SDG: PH229
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB1-061114 Water	7496175
FDG2-SL-878-SA5A-SB-0.0-0.5 Soil	7496176
FDG2-SL-878-SA5A-SB-4.0-5.0 Soil	7496177
FDG2-SL-694-SA6-SB-0.0-0.5 Soil	7496178
FDG2-SL-695-SA6-SB-0.0-0.5 Soil	7496179
FDG2-SL-560-NBZ-SB-0.0-0.5 Soil	7496180
FDG2-SL-577-NBZ-SB-0.0-0.5 Soil	7496181
FDG2-SL-629-SA8-SB-0.0-0.5 Soil	7496182
FDG2-SL-571-NBZ-SB-0.0-0.5 Soil	7496183

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: TB1-061114 Water
SSFL Phase 3

LL Sample # WW 7496175
LL Group # 1481297
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 08:00

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB111 SDG#: PH229-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14169A94A	06/19/2014 17:36	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14169A94A	06/19/2014 17:36	Marie D Beamenderfer	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-878-SA5A-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7496176
LL Group # 1481297
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 08:25 by RR

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87800 SDG#: PH229-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.2	1
13099	PCB-1242	53469-21-9	17	U	17	4.2	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	17	U	17	4.5	1
13099	PCB-1260	11096-82-5	17	U	17	4.0	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	2.3	J	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	24		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	53		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	6.5		5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	4.6	J	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	1.3		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141690028A	06/23/2014 14:05	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141690028A	06/19/2014 09:45	Katheryne V Sponheimer	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-878-SA5A-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7496176
LL Group # 1481297
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 08:25 by RR

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87800 SDG#: PH229-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141640001A	06/17/2014 12:38	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141680008A	06/24/2014 01:41	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141680008A	06/17/2014 16:45	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141640001A	06/13/2014 18:00	Sally L Appleyard	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14170162401A	06/19/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-878-SA5A-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7496177
LL Group # 1481297
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 08:55 by RR

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87840 SDG#: PH229-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	0.88	J	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	3.8		1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	1.1	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	10	J	19	6.2	1
12969	Fluoranthene	206-44-0	0.95	J	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	0.78	J	1.7	0.69	1
12969	Pyrene	129-00-0	0.75	J	1.7	0.69	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2	24.61
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.4	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.2	1
13099	PCB-1242	53469-21-9	17	U	17	4.2	1
13099	PCB-1248	12672-29-6	17	U	17	3.4	1
13099	PCB-1254	11097-69-1	17	U	17	4.5	1
13099	PCB-1260	11096-82-5	17	U	17	4.0	1
13099	PCB-1262	37324-23-5	17	U	17	3.4	1
13099	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.1	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-878-SA5A-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7496177
LL Group # 1481297
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 08:55 by RR

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87840 SDG#: PH229-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	13		5.1	2.1	1
12952	EFH (C30-C40)	n.a.	28		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	2.1	J	5.1	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,800		41.1	7.41	1
06944	Antimony	7440-36-0	4.11	U	4.11	0.761	1
06935	Arsenic	7440-38-2	7.05		4.11	0.719	1
06946	Barium	7440-39-3	92.5		1.03	0.0339	1
06947	Beryllium	7440-41-7	0.588	J	1.03	0.0689	1
07914	Boron	7440-42-8	3.90	J	10.3	0.863	1
06949	Cadmium	7440-43-9	1.03	U	1.03	0.0781	1
01650	Calcium	7440-70-2	2,340		20.6	3.43	1
06951	Chromium	7440-47-3	21.2		3.08	0.164	1
06952	Cobalt	7440-48-4	4.78		1.03	0.102	1
06953	Copper	7440-50-8	9.95		2.06	0.298	1
01654	Iron	7439-89-6	18,600		41.1	3.72	1
06955	Lead	7439-92-1	7.29		3.08	0.514	1
01656	Lithium	7439-93-2	26.4		4.1	0.35	1
01657	Magnesium	7439-95-4	4,510		10.3	1.72	1
06958	Manganese	7439-96-5	290		1.03	0.0853	1
06960	Molybdenum	7439-98-7	0.417	J	2.06	0.175	1
06961	Nickel	7440-02-0	12.8		2.06	0.134	1
10145	Phosphorus	7723-14-0	480		10.3	2.97	1
01662	Potassium	7440-09-7	3,180		103	8.57	1
01667	Sodium	7440-23-5	80.1	J	103	17.2	1
06969	Tin	7440-31-5	2.58	J	10.3	0.226	1
06970	Titanium	7440-32-6	1,070		1.03	0.175	1
06971	Vanadium	7440-62-2	33.8		1.03	0.134	1
06972	Zinc	7440-66-6	54.4		4.11	0.206	1
10146	Zirconium	7440-67-7	2.72	J	5.14	0.863	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.229	J	0.411	0.103	2
06142	Silver	7440-22-4	0.0779	J	0.206	0.0267	2
06144	Strontium	7440-24-6	19.9		0.411	0.0699	2
06145	Thallium	7440-28-0	0.241		0.206	0.0308	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0189		0.0166	0.010	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-878-SA5A-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7496177
LL Group # 1481297
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 08:55 by RR

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87840 SDG#: PH229-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 21.9 C.	n.a.	6.10	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	2.7	0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14174SLA026	06/24/2014 03:21	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	3	14174SLA026	06/23/2014 14:40	Kelli M Barto	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14164A16A	06/14/2014 03:13	Marie D Beamenderfer	24.61
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201416334784	06/12/2014 14:39	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201416334784	06/12/2014 14:39	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141690028A	06/23/2014 14:23	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141690028A	06/19/2014 09:45	Katheryne V Sponheimer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141640001A	06/17/2014 12:59	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141680008A	06/24/2014 02:03	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141680008A	06/17/2014 16:45	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141640001A	06/13/2014 18:00	Sally L Appleyard	1
01643	Aluminum	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-878-SA5A-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7496177
LL Group # 1481297
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 08:55 by RR

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87840 SDG#: PH229-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01654	Iron	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141680637002	06/19/2014 17:10	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141680637002B	06/19/2014 07:15	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141680637002A	06/19/2014 07:15	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141680637002A	06/19/2014 07:15	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141680637002A	06/19/2014 07:15	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141680638002	06/19/2014 10:38	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141680637002	06/18/2014 12:24	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141680638002	06/18/2014 14:47	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14163039401A	06/12/2014 21:30	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14170162401A	06/19/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-694-SA6-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7496178
LL Group # 1481297
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 11:10 by RR

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69400 SDG#: PH229-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.0	U	5.0	2.0	1
12952	EFH (C15-C20)	n.a.	2.3	J	5.0	2.0	1
12952	EFH (C21-C30)	n.a.	9.9		5.0	2.0	1
12952	EFH (C30-C40)	n.a.	26		10	4.0	1
12952	EFH (C8-C11)	n.a.	5.0	U	5.0	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.0	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	0.51		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141640001A	06/17/2014 13:20	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141680008A	06/24/2014 02:25	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141680008A	06/17/2014 16:45	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141640001A	06/13/2014 18:00	Sally L Appleyard	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14170162401A	06/19/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-695-SA6-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 6

LL Sample # SW 7496179
LL Group # 1481297
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 10:30 by RR

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

69500 SDG#: PH229-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.0	U	5.0	2.0	1
12952	EFH (C15-C20)	n.a.	5.0	U	5.0	2.0	1
12952	EFH (C21-C30)	n.a.	9.7		5.0	2.0	1
12952	EFH (C30-C40)	n.a.	27		10	4.0	1
12952	EFH (C8-C11)	n.a.	5.0	U	5.0	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.0	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	0.62		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141640001A	06/17/2014 13:42	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141680008A	06/24/2014 02:46	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141680008A	06/17/2014 16:45	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141640001A	06/13/2014 18:00	Sally L Appleyard	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14170162401A	06/19/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-560-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7496180
LL Group # 1481297
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 11:35 by RR

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56000 SDG#: PH229-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	7.4		1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	1.1	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.2	1
12969	Fluoranthene	206-44-0	0.85	J	1.7	0.69	1
12969	Fluorene	86-73-7	2.5		1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	0.76	J	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	0.75	J	1.7	0.69	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.69	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.4	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.2	1
13099	PCB-1242	53469-21-9	17	U	17	4.2	1
13099	PCB-1248	12672-29-6	17	U	17	3.4	1
13099	PCB-1254	11097-69-1	8.9	J	17	4.5	1
13099	PCB-1260	11096-82-5	17	U	17	4.0	1
13099	PCB-1262	37324-23-5	17	U	17	3.4	1
13099	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	5.6		5.1	2.1	1
12952	EFH (C21-C30)	n.a.	59		5.1	2.1	1
12952	EFH (C30-C40)	n.a.	96		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.1	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-560-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7496180
LL Group # 1481297
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 11:35 by RR

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56000 SDG#: PH229-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
13197	EFH C21-C30 w/ SiGel	n.a.	12		5.1	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	5.0	J	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
	The reverse surrogate, capric acid, is present at <1%.						
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,300		39.2	7.06	1
06944	Antimony	7440-36-0	3.92	U	3.92	0.724	1
06935	Arsenic	7440-38-2	7.53		3.92	0.685	1
06946	Barium	7440-39-3	60.2		0.979	0.0323	1
06947	Beryllium	7440-41-7	0.567	J	0.979	0.0656	1
07914	Boron	7440-42-8	5.38	J	9.79	0.822	1
06949	Cadmium	7440-43-9	0.979	U	0.979	0.0744	1
01650	Calcium	7440-70-2	4,480		19.6	3.27	1
06951	Chromium	7440-47-3	19.5		2.94	0.157	1
06952	Cobalt	7440-48-4	5.45		0.979	0.0969	1
06953	Copper	7440-50-8	11.4		1.96	0.284	1
01654	Iron	7439-89-6	20,700		39.2	3.54	1
06955	Lead	7439-92-1	9.06		2.94	0.489	1
01656	Lithium	7439-93-2	28.3		3.9	0.33	1
01657	Magnesium	7439-95-4	5,010		9.79	1.63	1
06958	Manganese	7439-96-5	262		0.979	0.0812	1
06960	Molybdenum	7439-98-7	1.96	U	1.96	0.166	1
06961	Nickel	7440-02-0	12.3		1.96	0.127	1
10145	Phosphorus	7723-14-0	445		9.79	2.83	1
01662	Potassium	7440-09-7	3,700		97.9	8.16	1
01667	Sodium	7440-23-5	132		97.9	16.3	1
06969	Tin	7440-31-5	2.64	J	9.79	0.215	1
06970	Titanium	7440-32-6	943		0.979	0.166	1
06971	Vanadium	7440-62-2	34.3		0.979	0.127	1
06972	Zinc	7440-66-6	63.4		3.92	0.196	1
10146	Zirconium	7440-67-7	4.25	J	4.89	0.822	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.368	J	0.392	0.0979	2
06142	Silver	7440-22-4	0.0581	J	0.196	0.0254	2
06144	Strontium	7440-24-6	29.0		0.392	0.0666	2
06145	Thallium	7440-28-0	0.282		0.196	0.0294	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0263		0.0163	0.0098	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.92		0.0100	0.0100	1
	The pH was measured in water at 22.4 C.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-560-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7496180
LL Group # 1481297
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 11:35 by RR

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56000 SDG#: PH229-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	2.7	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14174SLA026	06/24/2014 03:54	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	3	14174SLA026	06/23/2014 14:40	Kelli M Barto	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141690028A	06/23/2014 14:42	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141690028A	06/19/2014 09:45	Katheryne V Sponheimer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141640001A	06/18/2014 00:31	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141680008A	06/24/2014 03:08	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141680008A	06/17/2014 16:45	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141640001A	06/13/2014 18:00	Sally L Appleyard	1
01643	Aluminum	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-560-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7496180
LL Group # 1481297
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 11:35 by RR

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56000 SDG#: PH229-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01667	Sodium	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141680637002	06/19/2014 17:14	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141680637002B	06/19/2014 07:18	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141680637002A	06/19/2014 07:18	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141680637002A	06/19/2014 07:18	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141680637002A	06/19/2014 07:18	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141680638002	06/19/2014 10:40	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141680637002	06/18/2014 12:24	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141680638002	06/18/2014 14:47	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14163039401A	06/12/2014 21:30	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14170162401A	06/19/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-577-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7496181
LL Group # 1481297
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 13:45 by RR

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57700 SDG#: PH229-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	3.0	J	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	18		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	40		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	2.1	J	5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.0	1

The reverse surrogate, capric acid, is present at <1%.
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.5		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141640001A	06/17/2014 14:24	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141680008A	06/24/2014 03:29	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141680008A	06/17/2014 16:45	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141640001A	06/13/2014 18:00	Sally L Appleyard	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14170162401A	06/19/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-629-SA8-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7496182
LL Group # 1481297
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 14:05 by RR

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

62900 SDG#: PH229-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	2.8	J	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	24		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	46		10	4.0	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	3.8	J	5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.0	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.0	1

The reverse surrogate, capric acid, is present at <1%.
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.1		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141640001A	06/17/2014 14:46	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141680008A	06/24/2014 03:51	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141680008A	06/17/2014 16:45	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141640001A	06/13/2014 18:00	Sally L Appleyard	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14170162401A	06/19/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-571-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7496183
LL Group # 1481297
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/11/2014 14:40 by RR

Submitted: 06/12/2014 09:15
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57100 SDG#: PH229-09*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	11	U	11	4.2	2
12952	EFH (C15-C20)	n.a.	11	J	11	4.2	2
12952	EFH (C21-C30)	n.a.	71		11	4.2	2
12952	EFH (C30-C40)	n.a.	140		21	8.4	2
12952	EFH (C8-C11)	n.a.	11	U	11	4.2	2
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	12		5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	J	11	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	5.3		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141640001A	06/18/2014 18:58	Heather E Williams	2
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141680008A	06/24/2014 04:13	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141680008A	06/17/2014 16:45	JoElla L Rice	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141640001A	06/13/2014 18:00	Sally L Appleyard	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14170162401A	06/19/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481297
Reported: 07/07/14 at 12:24 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14174SLA026	Sample number(s): 7496177,7496180									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	111		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	105		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	103		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	110		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	101		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	110		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	96		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	98		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	105		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	100		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	98		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	112		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	101		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	105		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	105		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	102		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	110		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	113		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	98		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	105		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	107		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	103		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	108		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	99		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	102		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	101		80-119		
Batch number: 14164A16A	Sample number(s): 7496177									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	77		67-120		
Batch number: 14169A94A	Sample number(s): 7496175									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	98	96	80-133	2	30
Batch number: 141690028A	Sample number(s): 7496176-7496177,7496180									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	82	83	36-106	0	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	100		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481297
Reported: 07/07/14 at 12:24 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1260	17	U	17.	3.9	ug/kg	105		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141640001A	Sample number(s): 7496176-7496183									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	93		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	96		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	98		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	86		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	76		60-115		
Batch number: 141680008A	Sample number(s): 7496176-7496183									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	71*		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	75*		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	76*		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	62		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	53*		60-115		
Batch number: 141680637002	Sample number(s): 7496177,7496180									
Aluminum	10.0	J	40.0	7.21	mg/kg	107		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	105		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	105		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	102		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	102		80-120		
Boron	1.76	J	10.0	0.840	mg/kg	99		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	103		80-120		
Calcium	24.6		20.0	3.34	mg/kg	105		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	103		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	105		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	103		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	104		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	108		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	101		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	103		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	102		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	102		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	108		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	104		80-120		
Potassium	100 U		100.	8.34	mg/kg	99		80-120		
Sodium	100 U		100.	16.7	mg/kg	101		80-120		
Tin	1.46	J	10.0	0.220	mg/kg	101		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	104		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	104		80-120		
Zinc	0.386	J	4.00	0.200	mg/kg	103		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	102		80-120		
Batch number: 141680637002A	Sample number(s): 7496177,7496180									
Silver	0.200	U	0.200	0.0260	mg/kg	103		80-120		
Strontium	0.134	J	0.400	0.0680	mg/kg	100		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	102		80-120		
Batch number: 141680637002B	Sample number(s): 7496177,7496180									
Selenium	0.400	U	0.400	0.100	mg/kg	103		80-120		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481297
Reported: 07/07/14 at 12:24 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 141680638002	Sample number(s): 7496177,7496180								
3a Mercury 7471A	0.0167 U	0.0167	0.0100	mg/kg	85		85-120		
Batch number: 14163039401A	Sample number(s): 7496177,7496180								
15a pH by 9045D					100		95-105		
Batch number: 14170162401A	Sample number(s): 7496176-7496183								
14a Moisture Content by 160.3					100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14174SLA026	Sample number(s): 7496177,7496180 UNSPK: P502707								
Acenaphthene	104	104	48-127	1	30				
Acenaphthylene	103	103	60-128	0	30				
Anthracene	103	102	52-126	0	30				
Benzo(a)anthracene	110	107	44-143	2	30				
Benzo(a)pyrene	95	95	49-137	0	30				
Benzo(b)fluoranthene	123	123	26-142	0	30				
Benzo(e)pyrene	98	98	63-111	0	30				
Benzo(g,h,i)perylene	48	45	33-141	5	30				
Benzo(k)fluoranthene	106	107	49-144	0	30				
Butylbenzylphthalate	115	119	64-156	4	30				
Di-n-butylphthalate	107	105	52-147	1	30				
Chrysene	106	103	43-141	3	30				
Dibenz(a,h)anthracene	59	57	25-145	4	30				
Diethylphthalate	101	101	66-140	0	30				
Dimethylphthalate	98	101	70-123	2	30				
Bis(2-Ethylhexyl)phthalate	107	110	48-164	3	30				
Fluoranthene	108	109	38-153	1	30				
Fluorene	108	108	57-130	0	30				
Indeno(1,2,3-cd)pyrene	55	53	26-139	5	30				
1-Methylnaphthalene	104	104	59-139	0	30				
2-Methylnaphthalene	107	107	46-147	1	30				
Naphthalene	103	103	52-136	0	30				
N-Nitrosodimethylamine	105	105	39-134	1	30				
Di-n-octylphthalate	172*	178*	52-162	3	30				
Phenanthrene	100	101	50-137	0	30				
Pyrene	102	103	26-143	0	30				
Batch number: 14164A16A	Sample number(s): 7496177 UNSPK: P494363								
11a TPH by EPA 8015B GRO	80	80	69-123	6	30				
Batch number: 141690028A	Sample number(s): 7496176-7496177,7496180 UNSPK: P494369								
PCB-1016	96	78	41-135	22	50				
PCB-1260	102	83	40-134	22	50				
Batch number: 141640001A	Sample number(s): 7496176-7496183 UNSPK: P494363								
EFH (C12-C14)	103	89	49-123	15	20				

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481297
Reported: 07/07/14 at 12:24 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
EFH (C15-C20)	105	126*	49-123	13	20				
EFH (C21-C30)	118	217*	49-123	28*	20				
EFH (C30-C40)	109	218*	49-123	26*	20				
EFH (C8-C11)	100	84	49-123	18	20				
Batch number: 141680008A	Sample number(s): 7496176-7496183 UNSPK: P494363								
EFH C12-C14 w/ SiGel	75	72	49-123	3	20				
EFH C15-C20 w/ SiGel	82	89	49-123	8	20				
EFH C21-C30 w/ SiGel	46*	110	49-123	36*	20				
EFH C30-C40 w/ SiGel	47*	106	49-123	36*	20				
EFH C8-C11 w/ SiGel	59	56	49-123	4	20				
Batch number: 141680637002	Sample number(s): 7496177,7496180 UNSPK: P501188 BKG: P501188								
Aluminum	1032 (2)	806 (2)	75-125	3	20	15,000	15,000	0	20
Antimony	47*	49*	75-125	3	20	3.92 U	3.96 U	0 (1)	20
Arsenic	98	98	75-125	1	20	5.68	5.34	6 (1)	20
Barium	94	88	75-125	5	20	104	107	3	20
Beryllium	102	102	75-125	2	20	0.566 J	0.570 J	1 (1)	20
Boron	98	97	75-125	2	20	4.31 J	4.09 J	5 (1)	20
Cadmium	93	93	75-125	2	20	0.980 U	0.990 U	0 (1)	20
Calcium	150 (2)	103 (2)	75-125	7	20	2,210	2,360	7	20
Chromium	112	94	75-125	10	20	19.0	20.0	5	20
Cobalt	95	95	75-125	2	20	4.78	4.98	4 (1)	20
Copper	102	95	75-125	7	20	11.5	11.7	1	20
Iron	-493 (2)	-449 (2)	75-125	0	20	18,800	18,800	0	20
Lead	132*	84	75-125	28*	20	10.4	7.96	26* (1)	20
Lithium	103	108	75-125	2	20	20.1	18.9	6 (1)	20
Magnesium	95 (2)	21 (2)	75-125	4	20	4,030	4,040	0	20
Manganese	73 (2)	41 (2)	75-125	5	20	313	332	6	20
Molybdenum	95	95	75-125	2	20	0.404 J	0.410 J	1 (1)	20
Nickel	97	94	75-125	4	20	12.8	12.4	3	20
Phosphorus	92 (2)	151 (2)	75-125	10	20	424	434	2	20
Potassium	124	122	75-125	1	20	3,560	3,680	3	20
Sodium	103	105	75-125	0	20	76.0 J	72.5 J	5 (1)	20
Tin	89	89	75-125	2	20	2.54 J	2.52 J	1 (1)	20
Titanium	244 (2)	196 (2)	75-125	4	20	1,040	1,040	0	20
Vanadium	102	96	75-125	4	20	35.0	33.9	3	20
Zinc	95	93	75-125	2	20	57.1	56.0	2	20
Zirconium	97	99	75-125	0	20	2.95 J	3.36 J	13 (1)	20
Batch number: 141680637002A	Sample number(s): 7496177,7496180 UNSPK: P501188 BKG: P501188								
Silver	128*	128*	75-125	2	20	0.0414 J	0.0323 J	25* (1)	20
Strontium	148*	71*	75-125	21*	20	22.0	23.1	5	20
Thallium	125	115	75-125	6	20	0.266	0.255	4 (1)	20
Batch number: 141680637002B	Sample number(s): 7496177,7496180 UNSPK: P501188 BKG: P501188								
Selenium	116	116	75-125	1	20	0.265 J	0.259 J	2 (1)	20
Batch number: 141680638002	Sample number(s): 7496177,7496180 UNSPK: P501188 BKG: P501188								
3a Mercury 7471A	89	86	65-135	1	20	0.0200	0.0182	10 (1)	20

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481297
Reported: 07/07/14 at 12:24 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14163039401A	Sample number(s): 7496177,7496180					BKG: 7496177			
15a pH by 9045D						6.10	6.13	0	3
Batch number: 14170162401A	Sample number(s): 7496176-7496183					BKG: P496167			
14a Moisture Content by 160.3						6.1	6.8	11	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14174SLA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7496177	100	102	89
7496180	105	109	94
Blank	111	114	100
LCS	110	115	99
MS	112	110	99
MSD	112	109	98
Limits:	59-115	61-118	70-127

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 14164A16A

	Trifluorotoluene-F
7496177	84
Blank	101
LCS	94
MS	81
MSD	75
Limits:	50-142

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14169A94A

	Trifluorotoluene-F
7496175	79
Blank	80
LCS	91
LCSD	92
Limits:	63-135

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481297
Reported: 07/07/14 at 12:24 PM

Surrogate Quality Control

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141690028A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7496176	94	83
7496177	93	83
7496180	87	80
Blank	66	62
LCS	104	95
LCSD	99	91
MS	107	101
MSD	81	75
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141640001A

	Chlorobenzene	Orthoterphenyl
7496176	85	93
7496177	81	85
7496178	102	107
7496179	92	94
7496180	83	94
7496181	104	103
7496182	83	90
7496183	110	114
Blank	95	101
LCS	92	91
MS	97	95
MSD	92	84
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141680008A

	Chlorobenzene	Orthoterphenyl
7496176	58	75
7496177	57	79
7496178	62	78
7496179	57	83
7496180	63	78
7496181	57	72
7496182	64	80
7496183	69	81
Blank	39	75
LCS	62	73
MS	65	76
MSD	64	74
Limits:	37-125	66-123

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

13013 1481297 7496175-83

CDM Smith

DateShipped: 6/11/2014
CarrierName: FedEx
AirbillNo: 770273213274

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140611-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
TB1-061114	6/11/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																			X																	
FDG2-SL-878-SA5A-SB-0.0-0.5	6/11/14 08:25	SO	None	1 - SS-Sleeve	10 day										X										X																
FDG2-SL-878-SA5A-SB-4.0-5.0	6/11/14 08:55	SO	None	2 - SS-Sleeve	10 day	X	X					X			X										X																
FDG2-SL-878-SA5A-SB-4.0-5.0	6/11/14 08:55	SO	None	1 - 16 oz glass	10 day													X																						
FDG2-SL-878-SA5A-SB-4.0-5.0	6/11/14 08:55	SO	None	2 - Encore	10 day																			X																
FDG2-SL-694-SA6-SB-0.0-0.5	6/11/14 11:10	SO	None	1 - SS-Sleeve	10 day																				X																
FDG2-SL-695-SA6-SB-0.0-0.5	6/11/14 10:30	SO	None	1 - SS-Sleeve	10 day																				X																
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/14 11:35	SO	None	2 - SS-Sleeve	10 day	X	X					X			X										X																
FDG2-SL-560-NBZ-SB-0.0-0.5	6/11/14 11:35	SO	None	1 - 4 oz glass	10 day													X																						
FDG2-SL-577-NBZ-SB-0.0-0.5	6/11/14 13:45	SO	None	1 - SS-Sleeve	10 day																				X																
FDG2-SL-629-SA8-SB-0.0-0.5	6/11/14 14:05	SO	None	1 - SS-Sleeve	10 day																				X																
FDG2-SL-571-NBZ-SB-0.0-0.5	6/11/14 14:40	SO	None	1 - SS-Sleeve	10 day																				X																

Special Instructions: For all EFH, silica gel cleanup required on half the extract. Analyze both extracts for EFH.

Sampler: Randy Roberts Sandy Do

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Sleff Mupelo	6/11/14	16000									
									Bun Mn	6.12.14	915

Final Data Gap Block 2 1of1

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 17140

Group Number(s): 1481297

Client: CDM

SSFL

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	06/12/2014 9:15
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	6
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Brandy Barclay (2299) at 09:45 on 06/12/2014

Samples Chilled Details: SSFL

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT121	0.7	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

July 07, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 06/13/2014
Group Number: 1481663
SDG: PH230
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SVL-532-SA8-SB-3.5-4.0 Soil	7497906
TB-061214 Water	7497907
SVL-546-SA8-SB-4.4-4.9 Soil	7497908
SVL-546-SA8-SB-4.4-4.9MS Soil	7497909
SVL-546-SA8-SB-4.4-4.9MSD Soil	7497910
SVL-846-SA8-SB-4.4-4.9 Soil	7497911

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: SVL-532-SA8-SB-3.5-4.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7497906
LL Group # 1481663
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 12:30 by VV

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53235 SDG#: PH230-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	23	U	23	8	1.02
10237	Acrolein	107-02-8	110	U	110	23	1.02
10237	Acrylonitrile	107-13-1	23	U	23	5	1.02
10237	t-Amyl methyl ether	994-05-8	6	U	6	1	1.02
10237	Benzene	71-43-2	6	U	6	0.6	1.02
10237	Bromobenzene	108-86-1	6	U	6	1	1.02
10237	Bromochloromethane	74-97-5	6	U	6	1	1.02
10237	Bromodichloromethane	75-27-4	6	U	6	1	1.02
10237	Bromoform	75-25-2	6	U	6	1	1.02
10237	Bromomethane	74-83-9	6	U	6	2	1.02
10237	2-Butanone	78-93-3	11	U	11	5	1.02
10237	t-Butyl alcohol	75-65-0	56	U	56	23	1.02
10237	n-Butylbenzene	104-51-8	6	U	6	1	1.02
10237	sec-Butylbenzene	135-98-8	6	U	6	1	1.02
10237	tert-Butylbenzene	98-06-6	6	U	6	1	1.02
10237	Carbon Disulfide	75-15-0	6	U	6	1	1.02
10237	Carbon Tetrachloride	56-23-5	6	U	6	1	1.02
10237	Chlorobenzene	108-90-7	6	U	6	1	1.02
10237	Chloroethane	75-00-3	6	U	6	2	1.02
10237	2-Chloroethyl Vinyl Ether	110-75-8	11	U	11	2	1.02
10237	Chloroform	67-66-3	6	U	6	1	1.02
10237	1-Chlorohexane	544-10-5	6	U	6	1	1.02
10237	Chloromethane	74-87-3	6	U	6	2	1.02
10237	2-Chlorotoluene	95-49-8	6	U	6	1	1.02
10237	4-Chlorotoluene	106-43-4	6	U	6	1	1.02
10237	Chlorotrifluoroethene	79-38-9	6	U	6	2	1.02
10237	1,2-Dibromo-3-chloropropane	96-12-8	6	U	6	2	1.02
10237	Dibromochloromethane	124-48-1	6	U	6	1	1.02
10237	1,2-Dibromoethane	106-93-4	6	U	6	1	1.02
10237	Dibromomethane	74-95-3	6	U	6	1	1.02
10237	1,2-Dichlorobenzene	95-50-1	6	U	6	1	1.02
10237	1,3-Dichlorobenzene	541-73-1	6	U	6	1	1.02
10237	1,4-Dichlorobenzene	106-46-7	6	U	6	1	1.02
10237	Dichlorodifluoromethane	75-71-8	6	U	6	2	1.02
10237	1,1-Dichloroethane	75-34-3	6	U	6	1	1.02
10237	1,2-Dichloroethane	107-06-2	6	U	6	1	1.02
10237	1,1-Dichloroethene	75-35-4	6	U	6	1	1.02
10237	cis-1,2-Dichloroethene	156-59-2	6	U	6	1	1.02
10237	trans-1,2-Dichloroethene	156-60-5	6	U	6	1	1.02
10237	1,2-Dichloropropane	78-87-5	6	U	6	1	1.02
10237	1,3-Dichloropropane	142-28-9	6	U	6	1	1.02
10237	2,2-Dichloropropane	594-20-7	6	U	6	1	1.02
10237	1,1-Dichloropropene	563-58-6	6	U	6	1	1.02
10237	cis-1,3-Dichloropropene	10061-01-5	6	U	6	1	1.02
10237	trans-1,3-Dichloropropene	10061-02-6	6	U	6	1	1.02
10237	Ethyl t-butyl ether	637-92-3	6	U	6	1	1.02
10237	Ethylbenzene	100-41-4	6	U	6	1	1.02
10237	Freon 113	76-13-1	6	U	6	2	1.02
10237	Freon 133a	75-88-7	6	U	6	2	1.02
10237	Hexachlorobutadiene	87-68-3	6	U	6	2	1.02
10237	2-Hexanone	591-78-6	11	U	11	3	1.02

*=This limit was used in the evaluation of the final result

Sample Description: SVL-532-SA8-SB-3.5-4.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7497906
LL Group # 1481663
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 12:30 by VV

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53235 SDG#: PH230-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	6	U	6	1	1.02
10237	Isopropylbenzene	98-82-8	6	U	6	1	1.02
10237	p-Isopropyltoluene	99-87-6	6	U	6	1	1.02
10237	Methyl Iodide	74-88-4	6	U	6	3	1.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	6	U	6	0.6	1.02
10237	4-Methyl-2-pentanone	108-10-1	11	U	11	3	1.02
10237	Methylene Chloride	75-09-2	6	U	6	2	1.02
10237	n-Propylbenzene	103-65-1	6	U	6	1	1.02
10237	Styrene	100-42-5	6	U	6	1	1.02
10237	1,1,1,2-Tetrachloroethane	630-20-6	6	U	6	1	1.02
10237	1,1,2,2-Tetrachloroethane	79-34-5	6	U	6	1	1.02
10237	Tetrachloroethene	127-18-4	6	U	6	1	1.02
10237	Toluene	108-88-3	6	U	6	1	1.02
10237	1,2,3-Trichlorobenzene	87-61-6	6	U	6	1	1.02
10237	1,2,4-Trichlorobenzene	120-82-1	6	U	6	1	1.02
10237	1,1,1-Trichloroethane	71-55-6	6	U	6	1	1.02
10237	1,1,2-Trichloroethane	79-00-5	6	U	6	1	1.02
10237	Trichloroethene	79-01-6	6	U	6	1	1.02
10237	Trichlorofluoromethane	75-69-4	6	U	6	2	1.02
10237	1,2,3-Trichloropropane	96-18-4	6	U	6	1	1.02
10237	1,2,4-Trimethylbenzene	95-63-6	6	U	6	1	1.02
10237	1,3,5-Trimethylbenzene	108-67-8	6	U	6	1	1.02
10237	Vinyl Acetate	108-05-4	11	U	11	2	1.02
10237	Vinyl Chloride	75-01-4	6	U	6	1	1.02
10237	m+p-Xylene	179601-23-1	6	U	6	1	1.02
10237	o-Xylene	95-47-6	6	U	6	1	1.02
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	9.8		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141751AB	06/25/2014 13:22	Angela D Sneeringer	1.02
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201416434795	06/13/2014 15:26	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-532-SA8-SB-3.5-4.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7497906
LL Group # 1481663
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 12:30 by VV

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53235 SDG#: PH230-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201416434795	06/13/2014 15:26	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201416434795	06/13/2014 15:11	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14170162401B	06/19/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: TB-061214 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7497907
LL Group # 1481663
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 08:00

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB230 SDG#: PH230-02TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	1	U	1	0.5	1
10335	Benzene	71-43-2	1	U	1	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	1	U	1	0.5	1
10335	Bromoform	75-25-2	4	U	4	0.5	1
10335	Bromomethane	74-83-9	1	U	1	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	1	U	1	0.5	1
10335	Chlorobenzene	108-90-7	1	U	1	0.5	1
10335	Chloroethane	75-00-3	1	U	1	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	1	U	1	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	1	U	1	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	1	U	1	0.5	1
10335	1,2-Dibromoethane	106-93-4	1	U	1	0.5	1
10335	Dibromomethane	74-95-3	1	U	1	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	1	U	1	0.5	1
10335	1,1-Dichloroethane	75-34-3	1	U	1	0.5	1
10335	1,2-Dichloroethane	107-06-2	1	U	1	0.5	1
10335	1,1-Dichloroethene	75-35-4	1	U	1	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	1	U	1	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	1	U	1	0.5	1
10335	1,2-Dichloropropane	78-87-5	1	U	1	0.5	1
10335	1,3-Dichloropropane	142-28-9	1	U	1	0.5	1
10335	2,2-Dichloropropane	594-20-7	1	U	1	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	1	U	1	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	1	U	1	0.5	1
10335	Ethyl t-butyl ether	637-92-3	1	U	1	0.5	1
10335	Ethylbenzene	100-41-4	1	U	1	0.5	1
10335	Freon 113	76-13-1	10	U	10	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: TB-061214 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7497907
LL Group # 1481663
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 08:00

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB230 SDG#: PH230-02TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	1	U	1	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	1	U	1	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	1	U	1	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	3	U	3	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	1	U	1	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	1	U	1	0.5	1
10335	Tetrachloroethene	127-18-4	1	U	1	0.5	1
10335	Toluene	108-88-3	1	U	1	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	1	U	1	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	1	U	1	0.5	1
10335	Trichloroethene	79-01-6	1	U	1	0.5	1
10335	Trichlorofluoromethane	75-69-4	1	U	1	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	1	U	1	0.5	1
10335	m+p-Xylene	179601-23-1	1	U	1	0.5	1
10335	o-Xylene	95-47-6	1	U	1	0.5	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141701AA	06/19/2014 13:23	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y141701AA	06/19/2014 13:23	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-546-SA8-SB-4.4-4.9 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7497908
LL Group # 1481663
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 10:25 by VV

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54644 SDG#: PH230-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	21	U	21	7	0.98
10237	Acrolein	107-02-8	100	U	100	21	0.98
10237	Acrylonitrile	107-13-1	21	U	21	4	0.98
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.98
10237	Benzene	71-43-2	5	U	5	0.5	0.98
10237	Bromobenzene	108-86-1	5	U	5	1	0.98
10237	Bromochloromethane	74-97-5	5	U	5	1	0.98
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.98
10237	Bromoform	75-25-2	5	U	5	1	0.98
10237	Bromomethane	74-83-9	5	U	5	2	0.98
10237	2-Butanone	78-93-3	10	U	10	4	0.98
10237	t-Butyl alcohol	75-65-0	51	U	51	21	0.98
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.98
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.98
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.98
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.98
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.98
10237	Chlorobenzene	108-90-7	5	U	5	1	0.98
10237	Chloroethane	75-00-3	5	U	5	2	0.98
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.98
10237	Chloroform	67-66-3	5	U	5	1	0.98
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.98
10237	Chloromethane	74-87-3	5	U	5	2	0.98
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.98
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.98
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.98
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.98
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.98
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.98
10237	Dibromomethane	74-95-3	5	U	5	1	0.98
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.98
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.98
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.98
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.98
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.98
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.98
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.98
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.98
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.98
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.98
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.98
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.98
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.98
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.98
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.98
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.98
10237	Ethylbenzene	100-41-4	5	U	5	1	0.98
10237	Freon 113	76-13-1	5	U	5	2	0.98
10237	Freon 133a	75-88-7	5	U	5	2	0.98
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.98
10237	2-Hexanone	591-78-6	10	U	10	3	0.98

*=This limit was used in the evaluation of the final result

Sample Description: SVL-546-SA8-SB-4.4-4.9 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7497908
LL Group # 1481663
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 10:25 by VV

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54644 SDG#: PH230-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.98
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.98
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.98
10237	Methyl Iodide	74-88-4	5	U	5	3	0.98
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.98
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.98
10237	Methylene Chloride	75-09-2	5	U	5	2	0.98
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.98
10237	Styrene	100-42-5	5	U	5	1	0.98
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.98
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.98
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.98
10237	Toluene	108-88-3	5	U	5	1	0.98
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.98
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.98
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.98
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.98
10237	Trichloroethene	79-01-6	5	U	5	1	0.98
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.98
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.98
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.98
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.98
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.98
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.98
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.98
10237	o-Xylene	95-47-6	5	U	5	1	0.98
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	4.5		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141751AB	06/25/2014 13:45	Angela D Sneeringer	0.98
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201416434795	06/13/2014 15:26	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-546-SA8-SB-4.4-4.9 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7497908
LL Group # 1481663
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 10:25 by VV

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54644 SDG#: PH230-03BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201416434795	06/13/2014 15:26	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201416434795	06/13/2014 15:13	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14170162401B	06/19/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-546-SA8-SB-4.4-4.9MS Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7497909
LL Group # 1481663
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 10:25 by VV

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54644 SDG#: PH230-03MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	150		21	7	1
10237	Acrolein	107-02-8	53	J	100	21	1
10237	Acrylonitrile	107-13-1	94		21	4	1
10237	t-Amyl methyl ether	994-05-8	21		5	1	1
10237	Benzene	71-43-2	23		5	0.5	1
10237	Bromobenzene	108-86-1	22		5	1	1
10237	Bromochloromethane	74-97-5	22		5	1	1
10237	Bromodichloromethane	75-27-4	20		5	1	1
10237	Bromoform	75-25-2	15		5	1	1
10237	Bromomethane	74-83-9	16		5	2	1
10237	2-Butanone	78-93-3	130		10	4	1
10237	t-Butyl alcohol	75-65-0	280		52	21	1
10237	n-Butylbenzene	104-51-8	22		5	1	1
10237	sec-Butylbenzene	135-98-8	26		5	1	1
10237	tert-Butylbenzene	98-06-6	26		5	1	1
10237	Carbon Disulfide	75-15-0	20		5	1	1
10237	Carbon Tetrachloride	56-23-5	22		5	1	1
10237	Chlorobenzene	108-90-7	22		5	1	1
10237	Chloroethane	75-00-3	15		5	2	1
10237	2-Chloroethyl Vinyl Ether	110-75-8	18		10	2	1
10237	Chloroform	67-66-3	24		5	1	1
10237	1-Chlorohexane	544-10-5	24		5	1	1
10237	Chloromethane	74-87-3	23		5	2	1
10237	2-Chlorotoluene	95-49-8	24		5	1	1
10237	4-Chlorotoluene	106-43-4	23		5	1	1
10237	Chlorotrifluoroethene	79-38-9	22		5	2	0.96
10237	1,2-Dibromo-3-chloropropane	96-12-8	16		5	2	1
10237	Dibromochloromethane	124-48-1	19		5	1	1
10237	1,2-Dibromoethane	106-93-4	22		5	1	1
10237	Dibromomethane	74-95-3	21		5	1	1
10237	1,2-Dichlorobenzene	95-50-1	18		5	1	1
10237	1,3-Dichlorobenzene	541-73-1	19		5	1	1
10237	1,4-Dichlorobenzene	106-46-7	19		5	1	1
10237	Dichlorodifluoromethane	75-71-8	24		5	2	1
10237	1,1-Dichloroethane	75-34-3	24		5	1	1
10237	1,2-Dichloroethane	107-06-2	22		5	1	1
10237	1,1-Dichloroethene	75-35-4	25		5	1	1
10237	cis-1,2-Dichloroethene	156-59-2	24		5	1	1
10237	trans-1,2-Dichloroethene	156-60-5	26		5	1	1
10237	1,2-Dichloropropane	78-87-5	23		5	1	1
10237	1,3-Dichloropropane	142-28-9	23		5	1	1
10237	2,2-Dichloropropane	594-20-7	23		5	1	1
10237	1,1-Dichloropropene	563-58-6	23		5	1	1
10237	cis-1,3-Dichloropropene	10061-01-5	20		5	1	1
10237	trans-1,3-Dichloropropene	10061-02-6	21		5	1	1
10237	Ethyl t-butyl ether	637-92-3	22		5	1	1
10237	Ethylbenzene	100-41-4	24		5	1	1
10237	Freon 113	76-13-1	23		5	2	1
10237	Freon 133a	75-88-7	25		5	2	0.96
10237	Hexachlorobutadiene	87-68-3	17		5	2	1
10237	2-Hexanone	591-78-6	92		10	3	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-546-SA8-SB-4.4-4.9MS Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7497909
LL Group # 1481663
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 10:25 by VV

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54644 SDG#: PH230-03MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg	ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	24	5	1	1
10237	Isopropylbenzene	98-82-8	24	5	1	1
10237	p-Isopropyltoluene	99-87-6	24	5	1	1
10237	Methyl Iodide	74-88-4	23	5	3	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	22	5	0.5	1
10237	4-Methyl-2-pentanone	108-10-1	92	10	3	1
10237	Methylene Chloride	75-09-2	24	5	2	1
10237	n-Propylbenzene	103-65-1	26	5	1	1
10237	Styrene	100-42-5	21	5	1	1
10237	1,1,1,2-Tetrachloroethane	630-20-6	21	5	1	1
10237	1,1,2,2-Tetrachloroethane	79-34-5	21	5	1	1
10237	Tetrachloroethene	127-18-4	25	5	1	1
10237	Toluene	108-88-3	25	5	1	1
10237	1,2,3-Trichlorobenzene	87-61-6	9	5	1	1
10237	1,2,4-Trichlorobenzene	120-82-1	11	5	1	1
10237	1,1,1-Trichloroethane	71-55-6	21	5	1	1
10237	1,1,2-Trichloroethane	79-00-5	23	5	1	1
10237	Trichloroethene	79-01-6	23	5	1	1
10237	Trichlorofluoromethane	75-69-4	23	5	2	1
10237	1,2,3-Trichloropropane	96-18-4	23	5	1	1
10237	1,2,4-Trimethylbenzene	95-63-6	24	5	1	1
10237	1,3,5-Trimethylbenzene	108-67-8	26	5	1	1
10237	Vinyl Acetate	108-05-4	19	10	2	0.96
10237	Vinyl Chloride	75-01-4	24	5	1	1
10237	m+p-Xylene	179601-23-1	48	5	1	1
10237	o-Xylene	95-47-6	23	5	1	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	14a Moisture Content by 160.3	n.a.	4.5	0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141751AB	06/25/2014 14:08	Angela D Sneeringer	1
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141751AB	06/25/2014 14:53	Angela D Sneeringer	0.96
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201416434795	06/13/2014 15:26	Mitchell R Washel	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201416434795	06/13/2014 15:26	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-546-SA8-SB-4.4-4.9MS Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7497909
LL Group # 1481663
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 10:25 by VV

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54644 SDG#: PH230-03MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201416434795	06/13/2014 15:15	Mitchell R Washel	n.a.
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14170162401B	06/19/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-546-SA8-SB-4.4-4.9MSD Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7497910
LL Group # 1481663
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 10:25 by VV

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54644 SDG#: PH230-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	130		21	7	0.99
10237	Acrolein	107-02-8	55	J	100	21	0.99
10237	Acrylonitrile	107-13-1	74		21	4	0.99
10237	t-Amyl methyl ether	994-05-8	18		5	1	0.99
10237	Benzene	71-43-2	20		5	0.5	0.99
10237	Bromobenzene	108-86-1	15		5	1	0.99
10237	Bromochloromethane	74-97-5	19		5	1	0.99
10237	Bromodichloromethane	75-27-4	16		5	1	0.99
10237	Bromoform	75-25-2	13		5	1	0.99
10237	Bromomethane	74-83-9	14		5	2	0.99
10237	2-Butanone	78-93-3	120		10	4	0.99
10237	t-Butyl alcohol	75-65-0	190		52	21	0.99
10237	n-Butylbenzene	104-51-8	16		5	1	0.99
10237	sec-Butylbenzene	135-98-8	18		5	1	0.99
10237	tert-Butylbenzene	98-06-6	19		5	1	0.99
10237	Carbon Disulfide	75-15-0	19		5	1	0.99
10237	Carbon Tetrachloride	56-23-5	20		5	1	0.99
10237	Chlorobenzene	108-90-7	17		5	1	0.99
10237	Chloroethane	75-00-3	13		5	2	0.99
10237	2-Chloroethyl Vinyl Ether	110-75-8	15		10	2	0.99
10237	Chloroform	67-66-3	20		5	1	0.99
10237	1-Chlorohexane	544-10-5	18		5	1	0.99
10237	Chloromethane	74-87-3	20		5	2	0.99
10237	2-Chlorotoluene	95-49-8	16		5	1	0.99
10237	4-Chlorotoluene	106-43-4	16		5	1	0.99
10237	Chlorotrifluoroethene	79-38-9	22		5	2	0.97
10237	1,2-Dibromo-3-chloropropane	96-12-8	12		5	2	0.99
10237	Dibromochloromethane	124-48-1	15		5	1	0.99
10237	1,2-Dibromoethane	106-93-4	18		5	1	0.99
10237	Dibromomethane	74-95-3	17		5	1	0.99
10237	1,2-Dichlorobenzene	95-50-1	12		5	1	0.99
10237	1,3-Dichlorobenzene	541-73-1	13		5	1	0.99
10237	1,4-Dichlorobenzene	106-46-7	13		5	1	0.99
10237	Dichlorodifluoromethane	75-71-8	21		5	2	0.99
10237	1,1-Dichloroethane	75-34-3	21		5	1	0.99
10237	1,2-Dichloroethane	107-06-2	19		5	1	0.99
10237	1,1-Dichloroethene	75-35-4	22		5	1	0.99
10237	cis-1,2-Dichloroethene	156-59-2	20		5	1	0.99
10237	trans-1,2-Dichloroethene	156-60-5	22		5	1	0.99
10237	1,2-Dichloropropane	78-87-5	19		5	1	0.99
10237	1,3-Dichloropropane	142-28-9	18		5	1	0.99
10237	2,2-Dichloropropane	594-20-7	21		5	1	0.99
10237	1,1-Dichloropropene	563-58-6	22		5	1	0.99
10237	cis-1,3-Dichloropropene	10061-01-5	17		5	1	0.99
10237	trans-1,3-Dichloropropene	10061-02-6	17		5	1	0.99
10237	Ethyl t-butyl ether	637-92-3	19		5	1	0.99
10237	Ethylbenzene	100-41-4	19		5	1	0.99
10237	Freon 113	76-13-1	20		5	2	0.99
10237	Freon 133a	75-88-7	25		5	2	0.97
10237	Hexachlorobutadiene	87-68-3	11		5	2	0.99
10237	2-Hexanone	591-78-6	78		10	3	0.99

*=This limit was used in the evaluation of the final result

Sample Description: SVL-546-SA8-SB-4.4-4.9MSD Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7497910
LL Group # 1481663
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 10:25 by VV

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54644 SDG#: PH230-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg	ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	20	5	1	0.99
10237	Isopropylbenzene	98-82-8	19	5	1	0.99
10237	p-Isopropyltoluene	99-87-6	17	5	1	0.99
10237	Methyl Iodide	74-88-4	20	5	3	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	18	5	0.5	0.99
10237	4-Methyl-2-pentanone	108-10-1	79	10	3	0.99
10237	Methylene Chloride	75-09-2	20	5	2	0.99
10237	n-Propylbenzene	103-65-1	19	5	1	0.99
10237	Styrene	100-42-5	16	5	1	0.99
10237	1,1,1,2-Tetrachloroethane	630-20-6	16	5	1	0.99
10237	1,1,2,2-Tetrachloroethane	79-34-5	15	5	1	0.99
10237	Tetrachloroethene	127-18-4	20	5	1	0.99
10237	Toluene	108-88-3	20	5	1	0.99
10237	1,2,3-Trichlorobenzene	87-61-6	6	5	1	0.99
10237	1,2,4-Trichlorobenzene	120-82-1	7	5	1	0.99
10237	1,1,1-Trichloroethane	71-55-6	19	5	1	0.99
10237	1,1,2-Trichloroethane	79-00-5	18	5	1	0.99
10237	Trichloroethene	79-01-6	20	5	1	0.99
10237	Trichlorofluoromethane	75-69-4	20	5	2	0.99
10237	1,2,3-Trichloropropane	96-18-4	17	5	1	0.99
10237	1,2,4-Trimethylbenzene	95-63-6	16	5	1	0.99
10237	1,3,5-Trimethylbenzene	108-67-8	18	5	1	0.99
10237	Vinyl Acetate	108-05-4	30	10	2	0.97
10237	Vinyl Chloride	75-01-4	21	5	1	0.99
10237	m+p-Xylene	179601-23-1	38	5	1	0.99
10237	o-Xylene	95-47-6	18	5	1	0.99
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11625	14a Moisture Content by 160.3	n.a.	4.5	0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	4.4	0.10	0.10	1

The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141751AB	06/25/2014 14:30	Angela D Sneeringer	0.99
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141751AB	06/25/2014 15:16	Angela D Sneeringer	0.97

*=This limit was used in the evaluation of the final result

Sample Description: SVL-546-SA8-SB-4.4-4.9MSD Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7497910
LL Group # 1481663
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 10:25 by VV

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54644 SDG#: PH230-03MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201416434795	06/13/2014 15:26	Mitchell R Washel	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201416434795	06/13/2014 15:26	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201416434795	06/13/2014 15:20	Mitchell R Washel	n.a.
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14170162401B	06/19/2014 20:40	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	14170162401B	06/19/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SVL-846-SA8-SB-4.4-4.9 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7497911
LL Group # 1481663
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 10:30 by VV

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84644 SDG#: PH230-04*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	20	U	20	7	0.95
10237	Acrolein	107-02-8	100	U	100	20	0.95
10237	Acrylonitrile	107-13-1	20	U	20	4	0.95
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	0.95
10237	Benzene	71-43-2	5	U	5	0.5	0.95
10237	Bromobenzene	108-86-1	5	U	5	1	0.95
10237	Bromochloromethane	74-97-5	5	U	5	1	0.95
10237	Bromodichloromethane	75-27-4	5	U	5	1	0.95
10237	Bromoform	75-25-2	5	U	5	1	0.95
10237	Bromomethane	74-83-9	5	U	5	2	0.95
10237	2-Butanone	78-93-3	10	U	10	4	0.95
10237	t-Butyl alcohol	75-65-0	50	U	50	20	0.95
10237	n-Butylbenzene	104-51-8	5	U	5	1	0.95
10237	sec-Butylbenzene	135-98-8	5	U	5	1	0.95
10237	tert-Butylbenzene	98-06-6	5	U	5	1	0.95
10237	Carbon Disulfide	75-15-0	5	U	5	1	0.95
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	0.95
10237	Chlorobenzene	108-90-7	5	U	5	1	0.95
10237	Chloroethane	75-00-3	5	U	5	2	0.95
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	0.95
10237	Chloroform	67-66-3	5	U	5	1	0.95
10237	1-Chlorohexane	544-10-5	5	U	5	1	0.95
10237	Chloromethane	74-87-3	5	U	5	2	0.95
10237	2-Chlorotoluene	95-49-8	5	U	5	1	0.95
10237	4-Chlorotoluene	106-43-4	5	U	5	1	0.95
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	0.95
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	0.95
10237	Dibromochloromethane	124-48-1	5	U	5	1	0.95
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	0.95
10237	Dibromomethane	74-95-3	5	U	5	1	0.95
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	0.95
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	0.95
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	0.95
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	0.95
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	0.95
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	0.95
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	0.95
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	0.95
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	0.95
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	0.95
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	0.95
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	0.95
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	0.95
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	0.95
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	0.95
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	0.95
10237	Ethylbenzene	100-41-4	5	U	5	1	0.95
10237	Freon 113	76-13-1	5	U	5	2	0.95
10237	Freon 133a	75-88-7	5	U	5	2	0.95
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	0.95
10237	2-Hexanone	591-78-6	10	U	10	3	0.95

*=This limit was used in the evaluation of the final result

Sample Description: SVL-846-SA8-SB-4.4-4.9 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7497911
LL Group # 1481663
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 10:30 by VV

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84644 SDG#: PH230-04*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg		ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	0.95
10237	Isopropylbenzene	98-82-8	5	U	5	1	0.95
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	0.95
10237	Methyl Iodide	74-88-4	5	U	5	3	0.95
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	0.95
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	0.95
10237	Methylene Chloride	75-09-2	5	U	5	2	0.95
10237	n-Propylbenzene	103-65-1	5	U	5	1	0.95
10237	Styrene	100-42-5	5	U	5	1	0.95
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	0.95
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	0.95
10237	Tetrachloroethene	127-18-4	5	U	5	1	0.95
10237	Toluene	108-88-3	5	U	5	1	0.95
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	0.95
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	0.95
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	0.95
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	0.95
10237	Trichloroethene	79-01-6	5	U	5	1	0.95
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	0.95
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	0.95
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	0.95
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	0.95
10237	Vinyl Acetate	108-05-4	10	U	10	2	0.95
10237	Vinyl Chloride	75-01-4	5	U	5	1	0.95
10237	m+p-Xylene	179601-23-1	5	U	5	1	0.95
10237	o-Xylene	95-47-6	5	U	5	1	0.95
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	4.5		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141751AB	06/25/2014 15:39	Angela D Sneeringer	0.95
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	1	201416434795	06/13/2014 15:26	Mitchell R Washel	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: SVL-846-SA8-SB-4.4-4.9 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7497911
LL Group # 1481663
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 10:30 by VV

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:24

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84644 SDG#: PH230-04*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035A	2	201416434795	06/13/2014 15:25	Mitchell R Washel	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035A	1	201416434795	06/13/2014 15:22	Mitchell R Washel	n.a.
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14170162401B	06/19/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481663
Reported: 07/07/14 at 12:24 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B141751AB	Sample number(s): 7497906,7497908-7497911									
Acetone	20	U	20.	7	ug/kg	85		41-149		
Acrolein	100 U		100.	20	ug/kg	92		50-137		
Acrylonitrile	20	U	20.	4	ug/kg	90		58-123		
t-Amyl methyl ether	5	U	5.	1	ug/kg	98		63-130		
Benzene	5	U	5.	0.5	ug/kg	100		80-120		
Bromobenzene	5	U	5.	1	ug/kg	103		78-120		
Bromochloromethane	5	U	5.	1	ug/kg	97		75-129		
Bromodichloromethane	5	U	5.	1	ug/kg	90		75-120		
Bromoform	5	U	5.	1	ug/kg	81		70-126		
Bromomethane	5	U	5.	2	ug/kg	69		32-162		
2-Butanone	10	U	10.	4	ug/kg	91		47-136		
t-Butyl alcohol	50	U	50.	20	ug/kg	98		66-133		
n-Butylbenzene	5	U	5.	1	ug/kg	106		72-120		
sec-Butylbenzene	5	U	5.	1	ug/kg	106		69-120		
tert-Butylbenzene	5	U	5.	1	ug/kg	106		75-120		
Carbon Disulfide	5	U	5.	1	ug/kg	87		63-128		
Carbon Tetrachloride	5	U	5.	1	ug/kg	89		69-130		
Chlorobenzene	5	U	5.	1	ug/kg	105		80-120		
Chloroethane	5	U	5.	2	ug/kg	64		17-171		
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/kg	92		52-134		
Chloroform	5	U	5.	1	ug/kg	101		80-120		
1-Chlorohexane	5	U	5.	1	ug/kg	102		70-130		
Chloromethane	5	U	5.	2	ug/kg	91		56-120		
2-Chlorotoluene	5	U	5.	1	ug/kg	104		78-120		
4-Chlorotoluene	5	U	5.	1	ug/kg	105		79-120		
Chlorotrifluoroethene	5	U	5.	2	ug/kg	91		22-131		
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/kg	90		50-132		
Dibromochloromethane	5	U	5.	1	ug/kg	89		77-120		
1,2-Dibromoethane	5	U	5.	1	ug/kg	104		80-120		
Dibromomethane	5	U	5.	1	ug/kg	96		75-120		
1,2-Dichlorobenzene	5	U	5.	1	ug/kg	107		80-120		
1,3-Dichlorobenzene	5	U	5.	1	ug/kg	102		80-120		
1,4-Dichlorobenzene	5	U	5.	1	ug/kg	104		80-120		
Dichlorodifluoromethane	5	U	5.	2	ug/kg	89		26-137		
1,1-Dichloroethane	5	U	5.	1	ug/kg	101		71-122		
1,2-Dichloroethane	5	U	5.	1	ug/kg	102		66-136		
1,1-Dichloroethene	5	U	5.	1	ug/kg	102		73-129		
cis-1,2-Dichloroethene	5	U	5.	1	ug/kg	102		80-120		
trans-1,2-Dichloroethene	5	U	5.	1	ug/kg	108		79-120		
1,2-Dichloropropane	5	U	5.	1	ug/kg	100		77-120		
1,3-Dichloropropane	5	U	5.	1	ug/kg	103		73-120		
2,2-Dichloropropane	5	U	5.	1	ug/kg	97		72-123		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481663
Reported: 07/07/14 at 12:24 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/kg	105		77-120		
cis-1,3-Dichloropropene	5	U	5.	1	ug/kg	96		74-120		
trans-1,3-Dichloropropene	5	U	5.	1	ug/kg	100		69-120		
Ethyl t-butyl ether	5	U	5.	1	ug/kg	99		59-134		
Ethylbenzene	5	U	5.	1	ug/kg	106		80-120		
Freon 113	5	U	5.	2	ug/kg	92		64-137		
Freon 133a	5	U	5.	2	ug/kg	100		78-120		
Hexachlorobutadiene	5	U	5.	2	ug/kg	100		46-130		
2-Hexanone	10	U	10.	3	ug/kg	98		40-129		
di-Isopropyl ether	5	U	5.	1	ug/kg	104		68-128		
Isopropylbenzene	5	U	5.	1	ug/kg	108		76-120		
p-Isopropyltoluene	5	U	5.	1	ug/kg	104		69-120		
Methyl Iodide	5	U	5.	3	ug/kg	97		72-130		
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/kg	101		69-126		
4-Methyl-2-pentanone	10	U	10.	3	ug/kg	95		43-133		
Methylene Chloride	5	U	5.	2	ug/kg	102		80-124		
n-Propylbenzene	5	U	5.	1	ug/kg	106		77-120		
Styrene	5	U	5.	1	ug/kg	107		76-120		
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/kg	95		80-120		
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/kg	100		71-123		
Tetrachloroethene	5	U	5.	1	ug/kg	104		78-120		
Toluene	5	U	5.	1	ug/kg	105		80-120		
1,2,3-Trichlorobenzene	5	U	5.	1	ug/kg	101		64-120		
1,2,4-Trichlorobenzene	5	U	5.	1	ug/kg	102		68-120		
1,1,1-Trichloroethane	5	U	5.	1	ug/kg	86		63-135		
1,1,2-Trichloroethane	5	U	5.	1	ug/kg	104		80-120		
Trichloroethene	5	U	5.	1	ug/kg	101		80-120		
Trichlorofluoromethane	5	U	5.	2	ug/kg	87		58-133		
1,2,3-Trichloropropane	5	U	5.	1	ug/kg	104		71-123		
1,2,4-Trimethylbenzene	5	U	5.	1	ug/kg	105		79-120		
1,3,5-Trimethylbenzene	5	U	5.	1	ug/kg	106		78-120		
Vinyl Acetate	10	U	10.	2	ug/kg	101		40-127		
Vinyl Chloride	5	U	5.	1	ug/kg	94		59-120		
m+p-Xylene	5	U	5.	1	ug/kg	107		80-120		
o-Xylene	5	U	5.	1	ug/kg	107		80-120		
Batch number: Y141701AA	Sample number(s): 7497907									
Acetone	20	U	20.	6	ug/l	82	85	43-149	4	30
Acrolein	100	U	100.	40	ug/l	97	94	52-129	3	30
Acrylonitrile	20	U	20.	4	ug/l	89	94	62-120	6	30
t-Amyl methyl ether	1	U	1.	0.5	ug/l	101	102	75-120	1	30
Benzene	1	U	1.	0.5	ug/l	103	105	78-120	1	30
Bromobenzene	5	U	5.	1	ug/l	102	103	80-120	1	30
Bromochloromethane	5	U	5.	1	ug/l	101	101	80-121	0	30
Bromodichloromethane	1	U	1.	0.5	ug/l	97	97	73-120	0	30
Bromoform	4	U	4.	0.5	ug/l	91	90	61-120	1	30
Bromomethane	1	U	1.	0.5	ug/l	92	95	58-120	3	30
2-Butanone	10	U	10.	3	ug/l	95	96	54-133	1	30
t-Butyl alcohol	50	U	50.	5	ug/l	115	113	75-120	2	30
n-Butylbenzene	5	U	5.	1	ug/l	106	107	68-120	1	30
sec-Butylbenzene	5	U	5.	1	ug/l	108	109	80-120	1	30
tert-Butylbenzene	5	U	5.	1	ug/l	104	106	73-120	2	30
Carbon Disulfide	5	U	5.	1	ug/l	86	90	58-126	4	30
Carbon Tetrachloride	1	U	1.	0.5	ug/l	100	103	74-130	3	30
Chlorobenzene	1	U	1.	0.5	ug/l	102	105	80-120	2	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481663
Reported: 07/07/14 at 12:24 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroethane	1	U	1.	0.5	ug/l	87	87	56-120	0	30
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/l	101	103	54-126	2	30
Chloroform	1	U	1.	0.5	ug/l	103	104	80-122	1	30
1-Chlorohexane	5	U	5.	1	ug/l	104	107	80-120	3	30
Chloromethane	1	U	1.	0.5	ug/l	104	97	63-120	7	30
2-Chlorotoluene	5	U	5.	1	ug/l	102	102	80-120	1	30
4-Chlorotoluene	5	U	5.	1	ug/l	101	102	80-120	1	30
Chlorotrifluoroethene	5	U	5.	2	ug/l	85	82	47-120	4	30
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/l	98	99	56-120	0	30
Dibromochloromethane	1	U	1.	0.5	ug/l	91	92	72-120	1	30
1,2-Dibromoethane	1	U	1.	0.5	ug/l	105	107	76-120	2	30
Dibromomethane	1	U	1.	0.5	ug/l	103	102	80-120	1	30
1,2-Dichlorobenzene	5	U	5.	1	ug/l	102	102	80-120	0	30
1,3-Dichlorobenzene	5	U	5.	1	ug/l	102	102	80-120	1	30
1,4-Dichlorobenzene	5	U	5.	1	ug/l	101	103	80-120	2	30
Dichlorodifluoromethane	1	U	1.	0.5	ug/l	85	84	48-132	1	30
1,1-Dichloroethane	1	U	1.	0.5	ug/l	103	105	80-120	2	30
1,2-Dichloroethane	1	U	1.	0.5	ug/l	105	105	65-135	0	30
1,1-Dichloroethene	1	U	1.	0.5	ug/l	94	98	76-124	4	30
cis-1,2-Dichloroethene	1	U	1.	0.5	ug/l	105	107	80-120	2	30
trans-1,2-Dichloroethene	1	U	1.	0.5	ug/l	103	106	80-120	3	30
1,2-Dichloropropane	1	U	1.	0.5	ug/l	101	102	80-120	1	30
1,3-Dichloropropane	1	U	1.	0.5	ug/l	101	104	80-120	3	30
2,2-Dichloropropane	1	U	1.	0.5	ug/l	103	106	67-124	3	30
1,1-Dichloropropene	5	U	5.	1	ug/l	106	107	80-120	0	30
cis-1,3-Dichloropropene	1	U	1.	0.5	ug/l	98	99	80-120	1	30
trans-1,3-Dichloropropene	1	U	1.	0.5	ug/l	100	100	76-120	1	30
Ethyl t-butyl ether	1	U	1.	0.5	ug/l	102	102	74-120	0	30
Ethylbenzene	1	U	1.	0.5	ug/l	101	102	79-120	1	30
Freon 113	10	U	10.	2	ug/l	82	85	67-127	4	30
Freon 133a	5	U	5.	2	ug/l	115	116	46-152	1	30
Hexachlorobutadiene	5	U	5.	2	ug/l	101	100	51-125	1	30
2-Hexanone	10	U	10.	3	ug/l	96	97	44-126	1	30
di-Isopropyl ether	1	U	1.	0.5	ug/l	104	104	65-120	0	30
Isopropylbenzene	5	U	5.	1	ug/l	103	104	77-120	1	30
p-Isopropyltoluene	5	U	5.	1	ug/l	105	106	80-120	1	30
Methyl Iodide	1	U	1.	0.5	ug/l	106	106	75-128	0	30
Methyl Tertiary Butyl Ether	1	U	1.	0.5	ug/l	99	101	75-120	2	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	97	98	51-124	1	30
Methylene Chloride	3	U	3.	2	ug/l	93	95	80-120	2	30
n-Propylbenzene	5	U	5.	1	ug/l	106	107	80-120	2	30
Styrene	5	U	5.	1	ug/l	101	103	80-120	2	30
1,1,1,2-Tetrachloroethane	1	U	1.	0.5	ug/l	100	103	80-120	2	30
1,1,2,2-Tetrachloroethane	1	U	1.	0.5	ug/l	102	104	70-120	2	30
Tetrachloroethene	1	U	1.	0.5	ug/l	101	104	80-120	3	30
Toluene	1	U	1.	0.5	ug/l	104	106	80-120	2	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	100	100	58-126	1	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	103	104	65-120	2	30
1,1,1-Trichloroethane	1	U	1.	0.5	ug/l	99	99	66-126	0	30
1,1,2-Trichloroethane	1	U	1.	0.5	ug/l	103	104	80-120	0	30
Trichloroethene	1	U	1.	0.5	ug/l	105	106	80-120	1	30
Trichlorofluoromethane	1	U	1.	0.5	ug/l	86	90	65-130	4	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	102	104	76-120	2	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	104	106	74-120	1	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	106	106	74-120	0	30
Vinyl Acetate	10	U	10.	2	ug/l	81	72	56-135	11	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481663
Reported: 07/07/14 at 12:24 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vinyl Chloride	1	U	1.	0.5	ug/l	102	95	63-120	7	30
m+p-Xylene	1	U	1.	0.5	ug/l	101	102	80-120	1	30
o-Xylene	1	U	1.	0.5	ug/l	101	103	80-120	1	30
Batch number: 14170162401B	Sample number(s): 7497906,7497908-7497911									
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: B141751AB	Sample number(s): 7497906,7497908-7497911 UNSPK: 7497908								
Acetone	99	82	31-195	19	30				
Acrolein	34	35	10-165	3	30				
Acrylonitrile	90	72	48-139	24	30				
t-Amyl methyl ether	101	86	50-132	17	30				
Benzene	112	97	55-143	15	30				
Bromobenzene	104	73	43-139	35*	30				
Bromochloromethane	104	90	60-137	15	30				
Bromodichloromethane	94	79	53-136	18	30				
Bromoform	74	60	50-144	21	30				
Bromomethane	75	67	42-168	13	30				
2-Butanone	84	74	37-163	13	30				
t-Butyl alcohol	134	90	47-153	41*	30				
n-Butylbenzene	107	76	30-146	35*	30				
sec-Butylbenzene	124	88	33-157	35*	30				
tert-Butylbenzene	126	90	41-152	34*	30				
Carbon Disulfide	98	91	48-146	9	30				
Carbon Tetrachloride	103	94	51-165	10	30				
Chlorobenzene	107	84	49-135	25	30				
Chloroethane	71	64	39-152	11	30				
2-Chloroethyl Vinyl Ether	85	72	32-139	18	30				
Chloroform	113	98	61-142	15	30				
1-Chlorohexane	114	88	70-130	27	30				
Chloromethane	109	96	36-143	14	30				
2-Chlorotoluene	113	80	42-146	36*	30				
4-Chlorotoluene	108	76	39-145	36*	30				
Chlorotrifluoroethene	108	106	70-130	1	30				
1,2-Dibromo-3-chloropropane	75	56	34-165	30	30				
Dibromochloromethane	90	71	51-128	24	30				
1,2-Dibromoethane	106	85	54-129	23	30				
Dibromomethane	98	84	57-130	16	30				
1,2-Dichlorobenzene	87	60	36-133	39*	30				
1,3-Dichlorobenzene	91	61	34-134	40*	30				
1,4-Dichlorobenzene	89	61	35-136	39*	30				
Dichlorodifluoromethane	114	99	26-151	14	30				
1,1-Dichloroethane	114	100	63-142	14	30				
1,2-Dichloroethane	107	91	54-143	17	30				

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481663
Reported: 07/07/14 at 12:24 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
1,1-Dichloroethene	118	108	61-149	10	30				
cis-1,2-Dichloroethene	113	99	67-135	15	30				
trans-1,2-Dichloroethene	125	107	64-144	17	30				
1,2-Dichloropropane	110	93	54-144	17	30				
1,3-Dichloropropane	108	87	51-140	22	30				
2,2-Dichloropropane	111	101	53-147	11	30				
1,1-Dichloropropene	112	108	54-145	5	30				
cis-1,3-Dichloropropene	96	82	45-137	17	30				
trans-1,3-Dichloropropene	99	80	51-134	22	30				
Ethyl t-butyl ether	106	90	58-124	17	30				
Ethylbenzene	116	93	44-141	23	30				
Freon 113	110	98	56-156	13	30				
Freon 133a	123	123	61-131	2	30				
Hexachlorobutadiene	80	55	10-155	38*	30				
2-Hexanone	88	75	32-160	17	30				
di-Isopropyl ether	114	97	59-133	17	30				
Isopropylbenzene	114	91	38-144	23	30				
p-Isopropyltoluene	116	82	29-152	35*	30				
Methyl Iodide	109	98	52-139	12	30				
Methyl Tertiary Butyl Ether	107	87	55-129	21	30				
4-Methyl-2-pentanone	88	77	46-139	15	30				
Methylene Chloride	113	97	60-149	16	30				
n-Propylbenzene	125	90	39-157	33*	30				
Styrene	99	77	35-134	26	30				
1,1,1,2-Tetrachloroethane	100	79	55-139	25	30				
1,1,2,2-Tetrachloroethane	102	75	29-182	32*	30				
Tetrachloroethene	118	97	42-149	21	30				
Toluene	120	98	50-146	20	30				
1,2,3-Trichlorobenzene	45	30	10-140	43*	30				
1,2,4-Trichlorobenzene	51	34	10-136	42*	30				
1,1,1-Trichloroethane	99	91	52-146	9	30				
1,1,2-Trichloroethane	109	87	58-152	23	30				
Trichloroethene	112	98	53-144	14	30				
Trichlorofluoromethane	108	96	47-163	12	30				
1,2,3-Trichloropropane	109	81	36-180	30	30				
1,2,4-Trimethylbenzene	113	79	37-149	37*	30				
1,3,5-Trimethylbenzene	122	86	38-150	36*	30				
Vinyl Acetate	18*	29	21-139	46*	30				
Vinyl Chloride	115	102	50-154	13	30				
m+p-Xylene	115	92	44-137	23	30				
o-Xylene	110	87	42-137	25	30				
Batch number: 14170162401B	Sample number(s): 7497906,7497908-7497911					BKG: 7497908			
14a Moisture Content by 160.3						4.5	4.4	2	20
14a Moisture Content by 160.3						4.5	4.4	2	20
14a Moisture Content by 160.3						4.5	4.4	2	20

Surrogate Quality Control

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481663
Reported: 07/07/14 at 12:24 PM

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12a Volatile Organics EPA8260B
Batch number: B141751AB

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7497906	99	100	103	96
7497908	102	107	100	96
7497909	101	104	107	91
7497910	102	106	103	96
7497911	99	101	103	94
Blank	100	106	100	97
LCS	99	103	100	96
MS	101	104	107	91
MSD	102	106	103	96
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141701AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7497907	100	102	99	97
Blank	99	102	99	97
LCS	100	102	100	100
LCSD	99	102	101	100
Limits:	86-118	80-120	88-110	86-115

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

13013 1481663 7497906-11

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/12/2014
CarrierName: FedEx
AirbillNo: 770288260743

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140612-04
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
SVL-532-SA8-SB-3.5-4.0	6/12/14 12:30	SO	None	3 - Encore	10 day																		X																		
SVL-532-SA8-SB-3.5-4.0	6/12/14 12:30	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture
TB-061214	6/12/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																		X																		
SVL-546-SA8-SB-4.4-4.9MS	6/12/14 10:25	SO	None	9 - Encore	10 day																		X																		MS/MSD
SVL-546-SA8-SB-4.4-4.9MS	6/12/14 10:25	SO	None	1 - 8 oz glass	10 day																		X																		Soil Moisture. MS/MSD
SVL-846-SA8-SB-4.4-4.9	6/12/14 10:30	SO	None	3 - Encore	10 day																		X																		
SVL-846-SA8-SB-4.4-4.9	6/12/14 10:30	SO	None	1 - 4 oz glass	10 day																		X																		Soil Moisture

Special Instructions:

Sampler: VanVathasin Rob Ellis

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Shey Mypelae	6/12/14	1600									
									6-13-14	930	

Soil Vapor 1 of 1

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Sample Administration Receipt Documentation Log

Doc Log ID: 17287

Group Number(s): 1481663

Client: CDM

SSFL

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	06/13/2014 9:30
Number of Packages:	2	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	3
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Brandy Barclay (2299) at 10:02 on 06/13/2014

Samples Chilled Details: SSFL

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT121	0.5	DT	Wet	Y	Bagged	N	N
2	DT121	1.7	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

July 07, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 06/13/2014
Group Number: 1481665
SDG: PH231
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
FDG2-SL-562-NBZ-SB-0.0-0.5 Soil	7497920
FDG2-SL-563-NBZ-SB-0.0-0.5 Soil	7497921
FDG2-SL-569-NBZ-SB-0.0-0.5 Soil	7497922
FDG2-SL-570-NBZ-SB-0.0-0.5 Soil	7497923
FDG2-SL-583-NBZ-SB-0.0-0.5 Soil	7497924
EB1-061214 Water	7497925
EB2-061214 Water	7497926

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: FDG2-SL-562-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7497920
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 08:50 by RR

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56200 SDG#: PH231-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	2.1	U	2.1	0.83	1
12969	Acenaphthylene	208-96-8	0.48	J	2.1	0.41	1
12969	Anthracene	120-12-7	0.55	J	2.1	0.41	1
12969	Benzo(a)anthracene	56-55-3	2.1	U	2.1	0.83	1
12969	Benzo(a)pyrene	50-32-8	2.1	U	2.1	0.83	1
12969	Benzo(b)fluoranthene	205-99-2	0.91	J	2.1	0.83	1
12969	Benzo(e)pyrene	192-97-2	21	U	21	4.1	1
12969	Benzo(g,h,i)perylene	191-24-2	2.1	U	2.1	0.83	1
12969	Benzo(k)fluoranthene	207-08-9	11		2.1	0.83	1
12969	Butylbenzylphthalate	85-68-7	22	U	22	7.4	1
12969	Di-n-butylphthalate	84-74-2	22	U	22	7.4	1
12969	Chrysene	218-01-9	1.4	J	2.1	0.41	1
12969	Dibenz(a,h)anthracene	53-70-3	2.1	U	2.1	0.83	1
12969	Diethylphthalate	84-66-2	22	U	22	7.4	1
12969	Dimethylphthalate	131-11-3	22	U	22	7.4	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	22	U	22	7.4	1
12969	Fluoranthene	206-44-0	1.8	J	2.1	0.83	1
12969	Fluorene	86-73-7	8.7		2.1	0.83	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	2.1	U	2.1	0.83	1
12969	1-Methylnaphthalene	90-12-0	2.0	J	2.1	0.83	1
12969	2-Methylnaphthalene	91-57-6	2.7		2.1	0.83	1
12969	Naphthalene	91-20-3	4.9		2.1	0.83	1
12969	N-Nitrosodimethylamine	62-75-9	2.1	U	2.1	0.83	1
12969	Di-n-octylphthalate	117-84-0	22	U	22	7.4	1
12969	Phenanthrene	85-01-8	3.3		2.1	0.83	1
12969	Pyrene	129-00-0	1.5	J	2.1	0.83	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	1.0	U	1.0	0.21	1
10590	Alpha BHC	319-84-6	1.0	U	1.0	0.22	1
10590	Beta BHC	319-85-7	2.4	U	2.4	1.2	1
10590	Gamma BHC - Lindane	58-89-9	0.34	J	1.0	0.21	1
10590	Chlordane	57-74-9	21	U	21	5.0	1
10590	p,p-DDD	72-54-8	2.1	U	2.1	0.41	1
10590	p,p-DDE	72-55-9	0.53	J	2.1	0.41	1
10590	p,p-DDT	50-29-3	2.1	U	2.1	0.43	1
10590	Delta BHC	319-86-8	1.0	U	1.0	0.56	1
10590	Dieldrin	60-57-1	2.1	U	2.1	0.41	1
10590	Endosulfan I	959-98-8	1.0	U	1.0	0.27	1
10590	Endosulfan II	33213-65-9	2.1	U	2.1	0.41	1
10590	Endosulfan Sulfate	1031-07-8	2.1	U	2.1	0.41	1
10590	Endrin	72-20-8	2.1	U	2.1	0.41	1
10590	Endrin Aldehyde	7421-93-4	2.1	U	2.1	0.41	1
10590	Endrin Ketone	53494-70-5	2.2	U	2.2	0.74	1
10590	Heptachlor	76-44-8	1.0	U	1.0	0.21	1
10590	Heptachlor Epoxide	1024-57-3	0.24	J	1.0	0.21	1
10590	Methoxychlor	72-43-5	8.3	U	8.3	2.1	1
10590	Mirex	2385-85-5	2.1	U	2.1	0.43	1
10590	Toxaphene	8001-35-2	41	U	41	17	1

Reporting limits were raised due to interference from the sample matrix.

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-562-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7497920
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 08:50 by RR

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56200 SDG#: PH231-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	41	U	41	12	1
13099	Aroclor 5442	12642-23-8	41	U	41	12	1
13099	Aroclor 5460	11126-42-4	41	U	41	12	1
13099	PCB-1016	12674-11-2	21	U	21	4.1	1
13099	PCB-1221	11104-28-2	21	U	21	6.3	1
13099	PCB-1232	11141-16-5	21	U	21	5.0	1
13099	PCB-1242	53469-21-9	21	U	21	5.0	1
13099	PCB-1248	12672-29-6	21	U	21	4.1	1
13099	PCB-1254	11097-69-1	21	U	21	5.4	1
13099	PCB-1260	11096-82-5	21	U	21	4.8	1
13099	PCB-1262	37324-23-5	21	U	21	4.1	1
13099	PCB-1268	11100-14-4	21	U	21	4.1	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	6.2	U	6.2	2.5	1
12952	EFH (C15-C20)	n.a.	3.3	J	6.2	2.5	1
12952	EFH (C21-C30)	n.a.	14		6.2	2.5	1
12952	EFH (C30-C40)	n.a.	32		12	5.0	1
12952	EFH (C8-C11)	n.a.	6.2	U	6.2	2.5	1
13197	EFH C12-C14 w/ SiGel	n.a.	6.2	U	6.2	2.5	1
13197	EFH C15-C20 w/ SiGel	n.a.	6.2	U	6.2	2.5	1
13197	EFH C21-C30 w/ SiGel	n.a.	2.6	J	6.2	2.5	1
13197	EFH C30-C40 w/ SiGel	n.a.	12	U	12	5.0	1
13197	EFH C8-C11 w/ SiGel	n.a.	6.2	U	6.2	2.5	1

The reverse surrogate, capric acid, is present at <1%.
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.
A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken:
The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. All results are reported from the second trial per client request.
The first trial results are:
EFH (C8-C11) non-detect
EFH (C12-C14) non-detect
EFH (C15-C20) 3.1 mg/kg
EFH (C21-C30) 14 mg/kg
EFH (C30-C40) 28 mg/kg

Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	6,530		49.1	8.85	1
06944	Antimony	7440-36-0	4.91	U	4.91	0.908	1
06935	Arsenic	7440-38-2	28.9		4.91	0.859	1
06946	Barium	7440-39-3	39.2		1.23	0.0405	1
06947	Beryllium	7440-41-7	0.453	J	1.23	0.0822	1
07914	Boron	7440-42-8	2.89	J	12.3	1.03	1
06949	Cadmium	7440-43-9	1.23	U	1.23	0.0932	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-562-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7497920
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 08:50 by RR

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56200 SDG#: PH231-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01650	Calcium	7440-70-2	3,970		24.5	4.10	1
06951	Chromium	7440-47-3	8.11		3.68	0.196	1
06952	Cobalt	7440-48-4	2.44		1.23	0.121	1
06953	Copper	7440-50-8	10.1		2.45	0.356	1
01654	Iron	7439-89-6	30,300		49.1	4.44	1
06955	Lead	7439-92-1	9.95		3.68	0.613	1
01656	Lithium	7439-93-2	15.4		4.9	0.42	1
01657	Magnesium	7439-95-4	2,670		12.3	2.05	1
06958	Manganese	7439-96-5	146		1.23	0.102	1
06960	Molybdenum	7439-98-7	10.7		2.45	0.209	1
06961	Nickel	7440-02-0	5.17		2.45	0.159	1
10145	Phosphorus	7723-14-0	353		12.3	3.55	1
01662	Potassium	7440-09-7	1,740		123	10.2	1
01667	Sodium	7440-23-5	119	J	123	20.5	1
06969	Tin	7440-31-5	2.76	J	12.3	0.270	1
06970	Titanium	7440-32-6	591		1.23	0.209	1
06971	Vanadium	7440-62-2	33.9		1.23	0.159	1
06972	Zinc	7440-66-6	55.1		4.91	0.245	1
10146	Zirconium	7440-67-7	1.84	J	6.13	1.03	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	1.04		0.491	0.123	2
06142	Silver	7440-22-4	0.245	U	0.245	0.0319	2
06144	Strontium	7440-24-6	20.9		0.491	0.0834	2
06145	Thallium	7440-28-0	0.151	J	0.245	0.0368	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0138	J	0.0202	0.0121	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.83		0.0100	0.0100	1
	The pH was measured in water at 21.9 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	19.3		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-562-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7497920
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 08:50 by RR

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56200 SDG#: PH231-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.20	U	1.20	0.0943	1
11031	12378-PeCDD	40321-76-4	6.00	U	6.00	0.0755	1
11031	123478-HxCDD	39227-28-6	0.129	J	6.00	0.0585	1
11031	123678-HxCDD	57653-85-7	0.399	J	6.00	0.0579	1
11031	123789-HxCDD	19408-74-3	0.149	JQ	6.00	0.0595	1
11031	1234678-HpCDD	35822-46-9	8.17	B	6.00	0.0676	1
11031	OCDD	3268-87-9	71.3	B	12.0	0.0453	1
11031	2378-TCDF	51207-31-9	0.102	JBQ	1.20	0.0785	1
11031	12378-PeCDF	57117-41-6	0.0931	JBQ	6.00	0.0286	1
11031	23478-PeCDF	57117-31-4	0.0559	JBQ	6.00	0.0283	1
11031	123478-HxCDF	70648-26-9	0.100	JQ	6.00	0.0596	1
11031	123678-HxCDF	57117-44-9	0.167	J	6.00	0.0495	1
11031	123789-HxCDF	72918-21-9	0.0682	JQ	6.00	0.0619	1
11031	234678-HxCDF	60851-34-5	0.146	JBQ	6.00	0.0517	1
11031	1234678-HpCDF	67562-39-4	1.86	JB	6.00	0.0228	1
11031	1234789-HpCDF	55673-89-7	0.193	JBQ	6.00	0.0466	1
11031	OCDF	39001-02-0	4.50	JB	12.0	0.0701	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.193				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	81	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	90	32 - 141
13C12-123678-HxCDD	95	28 - 130
13C12-123789-HxCDD	91	28 - 130
13C12-1234678-HpCDD	97	23 - 140
13C12-OCDD	106	17 - 157
13C12-2378-TCDF	84	24 - 169
13C12-12378-PeCDF	104	24 - 185
13C12-23478-PeCDF	91	21 - 178
13C12-123478-HxCDF	91	26 - 152
13C12-123678-HxCDF	105	26 - 123
13C12-234678-HxCDF	96	28 - 136
13C12-123789-HxCDF	91	29 - 147
13C12-1234678-HpCDF	143	28 - 143
13C12-1234789-HpCDF	82	26 - 138
13C12-OCDF	80	17 - 157

Dioxins/Furans Data Qualifiers:

B *Detected in Method Blank*
U *Undetected*
J *Estimated concentration between Estimated Detection Limit and Minimum Level*
E *Exceeds calibration range*

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-562-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7497920
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 08:50 by RR

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56200 SDG#: PH231-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-562-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7497920
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 08:50 by RR

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56200 SDG#: PH231-01

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14174SLA026	06/24/2014 07:44	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	3	14174SLA026	06/23/2014 14:40	Kelli M Barto	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141700007A	06/23/2014 16:47	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141690028A	06/23/2014 15:00	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141690028A	06/19/2014 09:45	Katheryne V Sponheimer	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141700007A	06/19/2014 20:00	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141670004A	06/18/2014 02:19	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141670005A	06/19/2014 21:52	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141670005A	06/16/2014 15:15	Kelli M Barto	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141670004A	06/16/2014 15:15	Kelli M Barto	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14167007	06/19/2014 00:06	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14167007	06/16/2014 11:00	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-562-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7497920
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 08:50 by RR

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56200 SDG#: PH231-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141680637002	06/19/2014 17:18	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141680637002B	06/19/2014 07:20	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141680637002A	06/19/2014 07:20	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141680637002A	06/19/2014 07:20	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141680637002A	06/19/2014 07:20	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141680638002	06/19/2014 10:42	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141680637002	06/18/2014 12:24	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141680638002	06/18/2014 14:47	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14164039402A	06/13/2014 20:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14170162401B	06/19/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-563-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7497921
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 09:25 by RR

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56300 SDG#: PH231-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/kg		ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	0.95	J	1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	3.9		1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.2	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.2	1
12969	Chrysene	218-01-9	0.94	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.2	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.2	1
12969	Fluoranthene	206-44-0	0.93	J	1.7	0.68	1
12969	Fluorene	86-73-7	1.0	J	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.68	1
12969	Naphthalene	91-20-3	0.75	J	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.2	1
12969	Phenanthrene	85-01-8	0.69	J	1.7	0.68	1
12969	Pyrene	129-00-0	0.86	J	1.7	0.68	1
Pesticides/PCBs	**SW-846 8081B**		ug/kg		ug/kg	ug/kg	
10590	Aldrin	309-00-2	0.85	U	0.85	0.17	1
10590	Alpha BHC	319-84-6	0.85	U	0.85	0.17	1
10590	Beta BHC	319-85-7	1.3	J	2.0	0.99	1
10590	Gamma BHC - Lindane	58-89-9	0.85	U	0.85	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.1	1
10590	p,p-DDD	72-54-8	1.7	U	1.7	0.34	1
10590	p,p-DDE	72-55-9	0.44	J	1.7	0.34	1
10590	p,p-DDT	50-29-3	0.39	J	1.7	0.36	1
10590	Delta BHC	319-86-8	0.85	U	0.85	0.46	1
10590	Dieldrin	60-57-1	1.7	U	1.7	0.34	1
10590	Endosulfan I	959-98-8	0.85	U	0.85	0.23	1
10590	Endosulfan II	33213-65-9	1.7	U	1.7	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.34	1
10590	Endrin	72-20-8	1.7	U	1.7	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.7	U	1.7	0.34	1
10590	Endrin Ketone	53494-70-5	1.8	U	1.8	0.62	1
10590	Heptachlor	76-44-8	0.85	U	0.85	0.17	1
10590	Heptachlor Epoxide	1024-57-3	0.85	U	0.85	0.17	1
10590	Methoxychlor	72-43-5	6.9	U	6.9	1.7	1
10590	Mirex	2385-85-5	1.7	U	1.7	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-563-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7497921
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 09:25 by RR

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56300 SDG#: PH231-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	17	U	17	8.2	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	10	1
13099	PCB-1242	53469-21-9	17	U	17	10	1
13099	PCB-1248	12672-29-6	17	U	17	3.4	1
13099	PCB-1254	11097-69-1	17	U	17	4.5	1
13099	PCB-1260	11096-82-5	17	U	17	4.0	1
13099	PCB-1262	37324-23-5	17	U	17	3.4	1
13099	PCB-1268	11100-14-4	17	U	17	3.4	1
	Reporting limits were raised due to interference from the sample matrix.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C21-C30)	n.a.	7.2		5.1	2.1	1
12952	EFH (C30-C40)	n.a.	16		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
	The reverse surrogate, capric acid, is present at <1%.						
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	6,760		39.5	7.12	1
06944	Antimony	7440-36-0	3.95	U	3.95	0.731	1
06935	Arsenic	7440-38-2	3.74	J	3.95	0.691	1
06946	Barium	7440-39-3	44.8		0.987	0.0326	1
06947	Beryllium	7440-41-7	0.281	J	0.987	0.0661	1
07914	Boron	7440-42-8	4.70	J	9.87	0.829	1
06949	Cadmium	7440-43-9	0.987	U	0.987	0.0750	1
01650	Calcium	7440-70-2	3,030		19.7	3.30	1
06951	Chromium	7440-47-3	13.2		2.96	0.158	1
06952	Cobalt	7440-48-4	2.74		0.987	0.0977	1
06953	Copper	7440-50-8	5.23		1.97	0.286	1
01654	Iron	7439-89-6	12,000		39.5	3.57	1
06955	Lead	7439-92-1	4.97		2.96	0.494	1
01656	Lithium	7439-93-2	15.4		3.9	0.34	1
01657	Magnesium	7439-95-4	2,920		9.87	1.65	1
06958	Manganese	7439-96-5	141		0.987	0.0819	1
06960	Molybdenum	7439-98-7	0.184	J	1.97	0.168	1
06961	Nickel	7440-02-0	4.86		1.97	0.128	1
10145	Phosphorus	7723-14-0	255		9.87	2.85	1
01662	Potassium	7440-09-7	1,970		98.7	8.23	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-563-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7497921
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 09:25 by RR

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56300 SDG#: PH231-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01667	Sodium	7440-23-5	121		98.7	16.5	1
06969	Tin	7440-31-5	2.02	J	9.87	0.217	1
06970	Titanium	7440-32-6	585		0.987	0.168	1
06971	Vanadium	7440-62-2	20.1		0.987	0.128	1
06972	Zinc	7440-66-6	32.4		3.95	0.197	1
10146	Zirconium	7440-67-7	1.77	J	4.94	0.829	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.171	J	0.395	0.0987	2
06142	Silver	7440-22-4	0.197	U	0.197	0.0257	2
06144	Strontium	7440-24-6	21.4		0.395	0.0671	2
06145	Thallium	7440-28-0	0.167	J	0.197	0.0296	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0152	J	0.0161	0.0097	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.08		0.0100	0.0100	1
	The pH was measured in water at 22.5 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.6		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-563-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7497921
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

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Submitted: 06/13/2014 09:30
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56300 SDG#: PH231-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.01	U	1.01	0.0756	1
11031	12378-PeCDD	40321-76-4	0.128	JQ	5.07	0.0529	1
11031	123478-HxCDD	39227-28-6	0.147	JQ	5.07	0.0457	1
11031	123678-HxCDD	57653-85-7	0.747	J	5.07	0.0442	1
11031	123789-HxCDD	19408-74-3	0.305	J	5.07	0.0435	1
11031	1234678-HpCDD	35822-46-9	17.9	B	5.07	0.0383	1
11031	OCDD	3268-87-9	150	B	10.1	0.0302	1
11031	2378-TCDF	51207-31-9	0.111	JBQ	1.01	0.0553	1
11031	12378-PeCDF	57117-41-6	0.121	JBQ	5.07	0.0263	1
11031	23478-PeCDF	57117-31-4	0.0682	JB	5.07	0.0280	1
11031	123478-HxCDF	70648-26-9	0.143	J	5.07	0.0411	1
11031	123678-HxCDF	57117-44-9	0.194	J	5.07	0.0336	1
11031	123789-HxCDF	72918-21-9	0.0742	JQ	5.07	0.0405	1
11031	234678-HxCDF	60851-34-5	0.225	JBQ	5.07	0.0360	1
11031	1234678-HpCDF	67562-39-4	3.47	JB	5.07	0.0147	1
11031	1234789-HpCDF	55673-89-7	0.393	JBQ	5.07	0.0336	1
11031	OCDF	39001-02-0	8.22	JB	10.1	0.0579	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.420				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	80	25 - 164
13C12-12378-PeCDD	87	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	89	23 - 140
13C12-OCDD	89	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	89	24 - 185
13C12-23478-PeCDF	77	21 - 178
13C12-123478-HxCDF	68	26 - 152
13C12-123678-HxCDF	80	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	117	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	54	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-563-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7497921
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 09:25 by RR

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56300 SDG#: PH231-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-563-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7497921
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 09:25 by RR

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56300 SDG#: PH231-02

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14174SLA026	06/24/2014 08:18	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	3	14174SLA026	06/23/2014 14:40	Kelli M Barto	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	141700007A	06/23/2014 17:24	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141690028A	06/23/2014 15:19	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141690028A	06/19/2014 09:45	Katheryne V Sponheimer	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	141700007A	06/19/2014 20:00	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141670004A	06/17/2014 19:44	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141670005A	06/19/2014 22:14	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141670005A	06/16/2014 15:15	Kelli M Barto	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141670004A	06/16/2014 15:15	Kelli M Barto	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14167007	06/19/2014 20:43	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14167007	06/16/2014 11:00	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-563-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7497921
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 09:25 by RR

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56300 SDG#: PH231-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141680637002	06/19/2014 17:22	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141680637002B	06/19/2014 07:22	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141680637002A	06/19/2014 07:22	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141680637002A	06/19/2014 07:22	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141680637002A	06/19/2014 07:22	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141680638002	06/19/2014 10:44	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141680637002	06/18/2014 12:24	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141680638002	06/18/2014 14:47	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14164039402A	06/13/2014 20:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14170162401B	06/19/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-569-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7497922
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 08:55 by RR

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
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Fairfax VA 22030

56900 SDG#: PH231-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.67	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.3	J	1.7	0.67	1
12969	Benzo(a)pyrene	50-32-8	1.4	J	1.7	0.67	1
12969	Benzo(b)fluoranthene	205-99-2	2.9		1.7	0.67	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	0.75	J	1.7	0.67	1
12969	Benzo(k)fluoranthene	207-08-9	9.5		1.7	0.67	1
12969	Butylbenzylphthalate	85-68-7	17	J	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	2.7		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.67	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	25		18	6.1	1
12969	Fluoranthene	206-44-0	3.0		1.7	0.67	1
12969	Fluorene	86-73-7	1.1	J	1.7	0.67	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.67	J	1.7	0.67	1
12969	1-Methylnaphthalene	90-12-0	0.89	J	1.7	0.67	1
12969	2-Methylnaphthalene	91-57-6	1.2	J	1.7	0.67	1
12969	Naphthalene	91-20-3	2.2		1.7	0.67	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.67	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	1.9		1.7	0.67	1
12969	Pyrene	129-00-0	2.9		1.7	0.67	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.1	1
13099	PCB-1232	11141-16-5	17	U	17	4.1	1
13099	PCB-1242	53469-21-9	17	U	17	4.1	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	9.5	J	17	4.4	1
13099	PCB-1260	11096-82-5	17	U	17	3.9	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.0	U	5.0	2.0	1
12952	EFH (C15-C20)	n.a.	5.0	U	5.0	2.0	1
12952	EFH (C21-C30)	n.a.	18		5.0	2.0	1
12952	EFH (C30-C40)	n.a.	37		10	4.0	1
12952	EFH (C8-C11)	n.a.	5.0	U	5.0	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.0	U	5.0	2.0	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-569-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7497922
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 08:55 by RR

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56900 SDG#: PH231-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
13197	EFH C21-C30 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.0	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
	The reverse surrogate, capric acid, is present at <1%.						
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	11,700		39.2	7.07	1
06944	Antimony	7440-36-0	3.92	U	3.92	0.726	1
06935	Arsenic	7440-38-2	11.6		3.92	0.686	1
06946	Barium	7440-39-3	68.7		0.980	0.0324	1
06947	Beryllium	7440-41-7	0.505	J	0.980	0.0657	1
07914	Boron	7440-42-8	3.06	J	9.80	0.824	1
06949	Cadmium	7440-43-9	0.980	U	0.980	0.0745	1
01650	Calcium	7440-70-2	2,670		19.6	3.27	1
06951	Chromium	7440-47-3	15.5		2.94	0.157	1
06952	Cobalt	7440-48-4	4.33		0.980	0.0971	1
06953	Copper	7440-50-8	7.50		1.96	0.284	1
01654	Iron	7439-89-6	18,400		39.2	3.55	1
06955	Lead	7439-92-1	13.2		2.94	0.490	1
01656	Lithium	7439-93-2	24.4		3.9	0.33	1
01657	Magnesium	7439-95-4	4,570		9.80	1.64	1
06958	Manganese	7439-96-5	269		0.980	0.0814	1
06960	Molybdenum	7439-98-7	0.180	J	1.96	0.167	1
06961	Nickel	7440-02-0	9.84		1.96	0.127	1
10145	Phosphorus	7723-14-0	354		9.80	2.83	1
01662	Potassium	7440-09-7	2,990		98.0	8.18	1
01667	Sodium	7440-23-5	51.8	J	98.0	16.4	1
06969	Tin	7440-31-5	2.50	J	9.80	0.216	1
06970	Titanium	7440-32-6	947		0.980	0.167	1
06971	Vanadium	7440-62-2	30.3		0.980	0.127	1
06972	Zinc	7440-66-6	52.6		3.92	0.196	1
10146	Zirconium	7440-67-7	1.94	J	4.90	0.824	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.337	J	0.392	0.0980	2
06142	Silver	7440-22-4	0.0306	J	0.196	0.0255	2
06144	Strontium	7440-24-6	16.3		0.392	0.0667	2
06145	Thallium	7440-28-0	0.258		0.196	0.0294	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0286		0.0160	0.0096	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.35		0.0100	0.0100	1
	The pH was measured in water at 22.7 C.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-569-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7497922
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 08:55 by RR

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56900 SDG#: PH231-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	0.98	0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14174SLA026	06/24/2014 08:51	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	3	14174SLA026	06/23/2014 14:40	Kelli M Barto	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141690028A	06/23/2014 15:37	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141690028A	06/19/2014 09:45	Katheryne V Sponheimer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141670004A	06/17/2014 23:04	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141670005A	06/19/2014 22:35	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141670005A	06/16/2014 15:15	Kelli M Barto	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141670004A	06/16/2014 15:15	Kelli M Barto	1
01643	Aluminum	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-569-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7497922
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 08:55 by RR

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

56900 SDG#: PH231-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01667	Sodium	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141680637002	06/19/2014 17:26	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141680637002B	06/19/2014 07:25	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141680637002A	06/19/2014 07:25	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141680637002A	06/19/2014 07:25	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141680637002A	06/19/2014 07:25	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141680638002	06/19/2014 10:46	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141680637002	06/18/2014 12:24	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141680638002	06/18/2014 14:47	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14164039402A	06/13/2014 20:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14170162401B	06/19/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-570-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7497923
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 08:10 by RR

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57000 SDG#: PH231-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.67	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.67	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.67	1
12969	Benzo(b)fluoranthene	205-99-2	0.88	J	1.7	0.67	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.67	1
12969	Benzo(k)fluoranthene	207-08-9	1.3	J	1.7	0.67	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	0.80	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.67	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	15	J	18	6.1	1
12969	Fluoranthene	206-44-0	0.78	J	1.7	0.67	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.67	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.67	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.67	1
12969	2-Methylnaphthalene	91-57-6	0.88	J	1.7	0.67	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.67	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.67	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	0.68	J	1.7	0.67	1
12969	Pyrene	129-00-0	0.70	J	1.7	0.67	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.1	1
13099	PCB-1232	11141-16-5	17	U	17	4.1	1
13099	PCB-1242	53469-21-9	17	U	17	4.1	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	17	U	17	4.4	1
13099	PCB-1260	11096-82-5	17	U	17	3.9	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.0	U	5.0	2.0	1
12952	EFH (C15-C20)	n.a.	5.0	U	5.0	2.0	1
12952	EFH (C21-C30)	n.a.	5.6		5.0	2.0	1
12952	EFH (C30-C40)	n.a.	12		10	4.0	1
12952	EFH (C8-C11)	n.a.	5.0	U	5.0	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.0	U	5.0	2.0	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-570-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7497923
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 08:10 by RR

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57000 SDG#: PH231-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
13197	EFH C21-C30 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.0	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
	The reverse surrogate, capric acid, is present at <1%.						
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	19,800		39.6	7.13	1
06944	Antimony	7440-36-0	3.96	U	3.96	0.732	1
06935	Arsenic	7440-38-2	9.17		3.96	0.692	1
06946	Barium	7440-39-3	94.0		0.989	0.0326	1
06947	Beryllium	7440-41-7	0.795	J	0.989	0.0663	1
07914	Boron	7440-42-8	4.24	J	9.89	0.831	1
06949	Cadmium	7440-43-9	0.989	U	0.989	0.0752	1
01650	Calcium	7440-70-2	2,170		19.8	3.30	1
06951	Chromium	7440-47-3	16.8		2.97	0.158	1
06952	Cobalt	7440-48-4	4.76		0.989	0.0979	1
06953	Copper	7440-50-8	8.37		1.98	0.287	1
01654	Iron	7439-89-6	21,100		39.6	3.58	1
06955	Lead	7439-92-1	8.27		2.97	0.495	1
01656	Lithium	7439-93-2	23.7		4.0	0.34	1
01657	Magnesium	7439-95-4	3,930		9.89	1.65	1
06958	Manganese	7439-96-5	291		0.989	0.0821	1
06960	Molybdenum	7439-98-7	0.387	J	1.98	0.168	1
06961	Nickel	7440-02-0	10.8		1.98	0.129	1
10145	Phosphorus	7723-14-0	243		9.89	2.86	1
01662	Potassium	7440-09-7	3,410		98.9	8.25	1
01667	Sodium	7440-23-5	93.0	J	98.9	16.5	1
06969	Tin	7440-31-5	2.70	J	9.89	0.218	1
06970	Titanium	7440-32-6	1,010		0.989	0.168	1
06971	Vanadium	7440-62-2	35.6		0.989	0.129	1
06972	Zinc	7440-66-6	48.3		3.96	0.198	1
10146	Zirconium	7440-67-7	3.29	J	4.95	0.831	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.451		0.396	0.0989	2
06142	Silver	7440-22-4	0.0382	J	0.198	0.0257	2
06144	Strontium	7440-24-6	26.2		0.396	0.0673	2
06145	Thallium	7440-28-0	0.347		0.198	0.0297	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0263		0.0164	0.0098	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	5.90		0.0100	0.0100	1
	The pH was measured in water at 22.5 C.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-570-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7497923
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 08:10 by RR

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57000 SDG#: PH231-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	0.89	0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14174SLA026	06/24/2014 09:25	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	3	14174SLA026	06/23/2014 14:40	Kelli M Barto	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141690028A	06/23/2014 15:56	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141690028A	06/19/2014 09:45	Katheryne V Sponheimer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141670004A	06/17/2014 20:06	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141670005A	06/19/2014 22:56	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141670005A	06/16/2014 15:15	Kelli M Barto	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141670004A	06/16/2014 15:15	Kelli M Barto	1
01643	Aluminum	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-570-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7497923
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 08:10 by RR

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

57000 SDG#: PH231-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01667	Sodium	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141680637002	06/19/2014 17:30	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141680637002B	06/19/2014 07:27	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141680637002A	06/19/2014 07:27	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141680637002A	06/19/2014 07:27	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141680637002A	06/19/2014 07:27	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141680638002	06/19/2014 10:52	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141680637002	06/18/2014 12:24	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141680638002	06/18/2014 14:47	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14164039402A	06/13/2014 20:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14170162401B	06/19/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-583-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7497924
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 13:35 by RR

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58300 SDG#: PH231-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.1	1
13099	PCB-1232	11141-16-5	17	U	17	4.1	1
13099	PCB-1242	53469-21-9	17	U	17	4.1	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	15	J	17	4.4	1
13099	PCB-1260	11096-82-5	17	U	17	3.9	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
	For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.0	U	5.0	2.0	1
12952	EFH (C15-C20)	n.a.	5.0	U	5.0	2.0	1
12952	EFH (C21-C30)	n.a.	9.5		5.0	2.0	1
12952	EFH (C30-C40)	n.a.	23		10	4.0	1
12952	EFH (C8-C11)	n.a.	5.0	U	5.0	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.0	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	0.89		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-583-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7497924
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 13:35 by RR

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

58300 SDG#: PH231-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141750017A	06/25/2014 15:25	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	2	141750017A	06/25/2014 08:15	Katheryne V Sponheimer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141670004A	06/17/2014 22:21	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141670005A	06/19/2014 23:17	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141670005A	06/16/2014 15:15	Kelli M Barto	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141670004A	06/16/2014 15:15	Kelli M Barto	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14170162401B	06/19/2014 20:40	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: EB1-061214 Water
SSFL Phase 3

LL Sample # WW 7497925
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 15:00 by PH

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB112 SDG#: PH231-06EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	
12971	Acenaphthene	83-32-9	0.056	U	0.056	0.011	1
12971	Acenaphthylene	208-96-8	0.056	U	0.056	0.011	1
12971	Anthracene	120-12-7	0.056	U	0.056	0.011	1
12971	Benzo(a)anthracene	56-55-3	0.056	U	0.056	0.011	1
12971	Benzo(a)pyrene	50-32-8	0.056	U	0.056	0.011	1
12971	Benzo(b)fluoranthene	205-99-2	0.056	U	0.056	0.011	1
12971	Benzo(e)pyrene	192-97-2	0.056	U	0.056	0.011	1
12971	Benzo(g,h,i)perylene	191-24-2	0.056	U	0.056	0.011	1
12971	Benzo(k)fluoranthene	207-08-9	0.056	U	0.056	0.011	1
12971	Butylbenzylphthalate	85-68-7	1.1	U	1.1	0.056	1
12971	Di-n-butylphthalate	84-74-2	0.11	J	1.1	0.056	1
12971	Chrysene	218-01-9	0.056	U	0.056	0.011	1
12971	Dibenz(a,h)anthracene	53-70-3	0.056	U	0.056	0.011	1
12971	Diethylphthalate	84-66-2	0.069	J	1.1	0.056	1
12971	Dimethylphthalate	131-11-3	1.1	U	1.1	0.056	1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.12	J	1.1	0.056	1
12971	Fluoranthene	206-44-0	0.056	U	0.056	0.011	1
12971	Fluorene	86-73-7	0.056	U	0.056	0.011	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.056	U	0.056	0.011	1
12971	1-Methylnaphthalene	90-12-0	0.020	J	0.056	0.011	1
12971	2-Methylnaphthalene	91-57-6	0.027	J	0.056	0.011	1
12971	Naphthalene	91-20-3	0.058		0.056	0.033	1
12971	N-Nitrosodimethylamine	62-75-9	0.056	U	0.056	0.011	1
12971	Di-n-octylphthalate	117-84-0	1.1	U	1.1	0.056	1
12971	Phenanthrene	85-01-8	0.056	U	0.056	0.033	1
12971	Pyrene	129-00-0	0.056	U	0.056	0.011	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the result is within the acceptance range allowed by the method, the data is reported.

GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1
Herbicides	**SW-846 8151A**		**ug/l**		**ug/l**	**ug/l**	
10407	2,4-D	94-75-7	0.48	U	0.48	0.15	1
10407	Dalapon	75-99-0	1.2	U	1.2	0.24	1
10407	2,4-DB	94-82-6	0.59	J	0.97	0.29	1
10407	Dicamba	1918-00-9	0.29	U	0.29	0.077	1
10407	Dinoseb	88-85-7	0.48	U	0.48	0.12	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.						
10407	2,4-DP (Dichlorprop)	120-36-5	0.48	U	0.48	0.15	1
10407	MCPA	94-74-6	190	U	190	48	1

*=This limit was used in the evaluation of the final result

Sample Description: EB1-061214 Water
SSFL Phase 3

LL Sample # WW 7497925
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 15:00 by PH

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB112 SDG#: PH231-06EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Herbicides	**SW-846 8151A**		**ug/l**		**ug/l**	**ug/l**	
10407	MCPP	93-65-2	190	U	190	48	1
10407	2,4,5-T	93-76-5	0.048	U	0.048	0.014	1
10407	2,4,5-TP	93-72-1	0.048	U	0.048	0.0097	1
Pesticides/PCBs	**SW-846 8081B**		**ug/l**		**ug/l**	**ug/l**	
10589	Aldrin	309-00-2	0.0085	U	0.0085	0.0017	1
10589	Alpha BHC	319-84-6	0.0085	U	0.0085	0.0026	1
10589	Beta BHC	319-85-7	0.017		0.0090	0.0090	1
10589	Gamma BHC - Lindane	58-89-9	0.0085	U	0.0085	0.0017	1
10589	Chlordane	57-74-9	0.43	U	0.43	0.14	1
10589	p,p-DDD	72-54-8	0.017	U	0.017	0.0043	1
10589	p,p-DDE	72-55-9	0.017	U	0.017	0.0043	1
10589	p,p-DDT	50-29-3	0.017	U	0.017	0.0044	1
10589	Delta BHC	319-86-8	0.0085	U	0.0085	0.0029	1
10589	Dieldrin	60-57-1	0.017	U	0.017	0.0045	1
10589	Endosulfan I	959-98-8	0.0085	U	0.0085	0.0037	1
10589	Endosulfan II	33213-65-9	0.017	U	0.017	0.013	1
10589	Endosulfan Sulfate	1031-07-8	0.017	U	0.017	0.0049	1
10589	Endrin	72-20-8	0.017	U	0.017	0.0069	1
10589	Endrin Aldehyde	7421-93-4	0.085	U	0.085	0.017	1
10589	Endrin Ketone	53494-70-5	0.017	U	0.017	0.0043	1
10589	Heptachlor	76-44-8	0.0085	U	0.0085	0.0017	1
10589	Heptachlor Epoxide	1024-57-3	0.0085	U	0.0085	0.0020	1
10589	Methoxychlor	72-43-5	0.085	U	0.085	0.026	1
10589	Mirex	2385-85-5	0.043	U	0.043	0.0085	1
10589	Toxaphene	8001-35-2	0.85	U	0.85	0.26	1

An interferent near the retention time of Beta-BHC was detected in the method blank associated with the sample. The reporting limit was raised to .009 ug/L. The following corrective action was taken: The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Beta-BHC was not detected in the second trial.

Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	
13092	Aroclor 5432	63496-31-1	0.43	U	0.43	0.085	1
13092	Aroclor 5442	12642-23-8	0.43	U	0.43	0.085	1
13092	Aroclor 5460	11126-42-4	0.43	U	0.43	0.094	1
13092	PCB-1016	12674-11-2	0.43	U	0.43	0.085	1
13092	PCB-1221	11104-28-2	0.43	U	0.43	0.085	1
13092	PCB-1232	11141-16-5	0.43	U	0.43	0.17	1
13092	PCB-1242	53469-21-9	0.43	U	0.43	0.085	1
13092	PCB-1248	12672-29-6	0.43	U	0.43	0.085	1
13092	PCB-1254	11097-69-1	0.43	U	0.43	0.085	1
13092	PCB-1260	11096-82-5	0.43	U	0.43	0.13	1
13092	PCB-1262	37324-23-5	0.43	U	0.43	0.17	1
13092	PCB-1268	11100-14-4	0.43	U	0.43	0.14	1

The recovery for a target analyte(s) and the surrogates in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the

*=This limit was used in the evaluation of the final result

Sample Description: EB1-061214 Water
SSFL Phase 3

LL Sample # WW 7497925
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 15:00 by PH

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB112 SDG#: PH231-06EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
first trial. Similar results were obtained in both trials.							
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**		**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.10	U	0.10	0.051	1
10365	EFH (C15-C20)	n.a.	0.10	U	0.10	0.051	1
10365	EFH (C21-C30)	n.a.	0.10	U	0.10	0.051	1
10365	EFH (C30 - C40)	n.a.	0.51	U	0.51	0.10	1
10365	EFH (C8-C11)	n.a.	0.10	U	0.10	0.051	1
13205	EFH C12-C14 w/ SiGel	n.a.	0.10	U	0.10	0.051	1
13205	EFH C15-C20 w/ SiGel	n.a.	0.10	U	0.10	0.051	1
13205	EFH C21-C30 w/ SiGel	n.a.	0.10	U	0.10	0.051	1
13205	EFH C30-C40 w/ SiGel	n.a.	0.51	U	0.51	0.10	1
13205	EFH C8-C11 w/ SiGel	n.a.	0.10	U	0.10	0.051	1
The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/l**		**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400	U	0.400	0.0828	1
07044	Antimony	7440-36-0	0.0400	U	0.0400	0.0053	1
07035	Arsenic	7440-38-2	0.0400	U	0.0400	0.0068	1
07046	Barium	7440-39-3	0.0100	U	0.0100	0.00033	1
07047	Beryllium	7440-41-7	0.0100	U	0.0100	0.00067	1
08014	Boron	7440-42-8	0.100	U	0.100	0.0084	1
07049	Cadmium	7440-43-9	0.0100	U	0.0100	0.00076	1
01750	Calcium	7440-70-2	0.400	U	0.400	0.0334	1
07051	Chromium	7440-47-3	0.0300	U	0.0300	0.0016	1
07052	Cobalt	7440-48-4	0.0100	U	0.0100	0.0013	1
07053	Copper	7440-50-8	0.0200	U	0.0200	0.0027	1
01754	Iron	7439-89-6	0.400	U	0.400	0.0430	1
07055	Lead	7439-92-1	0.0300	U	0.0300	0.0047	1
01756	Lithium	7439-93-2	0.0400	U	0.0400	0.0047	1
01757	Magnesium	7439-95-4	0.200	U	0.200	0.0167	1
07058	Manganese	7439-96-5	0.0013	J	0.0100	0.00083	1
07060	Molybdenum	7439-98-7	0.0200	U	0.0200	0.0017	1
07061	Nickel	7440-02-0	0.0200	U	0.0200	0.0015	1
10143	Phosphorus	7723-14-0	0.200	U	0.200	0.0418	1
01762	Potassium	7440-09-7	1.00	U	1.00	0.0980	1
01767	Sodium	7440-23-5	2.00	U	2.00	0.167	1
07069	Tin	7440-31-5	0.0400	U	0.0400	0.0029	1
07070	Titanium	7440-32-6	0.0200	U	0.0200	0.0017	1
07071	Vanadium	7440-62-2	0.0100	U	0.0100	0.0020	1
07072	Zinc	7440-66-6	0.0400	U	0.0400	0.0020	1
10144	Zirconium	7440-67-7	0.0099	J	0.100	0.0084	1
	SW-846 6020A		**mg/l**		**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040	U	0.0040	0.00050	1
06042	Silver	7440-22-4	0.0010	U	0.0010	0.00011	1
06044	Strontium	7440-24-6	0.0020	U	0.0020	0.00034	1
06045	Thallium	7440-28-0	0.0010	U	0.0010	0.00015	1

*=This limit was used in the evaluation of the final result

Sample Description: EB1-061214 Water
SSFL Phase 3

LL Sample # WW 7497925
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 15:00 by PH

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB112 SDG#: PH231-06EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Metals	**SW-846 7470A**		**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A	7439-97-6	0.00020 U	0.00020	0.000060	1
Wet Chemistry	**SW-846 9040C**		**Std. Units**	**Std. Units**	**Std. Units**	
12152	28b pH (9040B and 9040C)	n.a.	5.6	0.010	0.010	1

*=This limit was used in the evaluation of the final result

Sample Description: EB1-061214 Water
SSFL Phase 3

LL Sample # WW 7497925
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 15:00 by PH

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB112 SDG#: PH231-06EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	
10915	2378-TCDD	1746-01-6	2.04	U	2.04	0.118	1
10915	12378-PeCDD	40321-76-4	10.2	U	10.2	0.145	1
10915	123478-HxCDD	39227-28-6	10.2	U	10.2	0.112	1
10915	123678-HxCDD	57653-85-7	10.2	U	10.2	0.116	1
10915	123789-HxCDD	19408-74-3	10.2	U	10.2	0.110	1
10915	1234678-HpCDD	35822-46-9	1.41	JBQ	10.2	0.137	1
10915	OCDD	3268-87-9	21.3	BQ	20.4	0.146	1
10915	2378-TCDF	51207-31-9	0.0871	JQ	2.04	0.0709	1
10915	12378-PeCDF	57117-41-6	0.0952	JBQ	10.2	0.0549	1
10915	23478-PeCDF	57117-31-4	0.0938	JQ	10.2	0.0565	1
10915	123478-HxCDF	70648-26-9	0.107	JB	10.2	0.0664	1
10915	123678-HxCDF	57117-44-9	0.175	JBQ	10.2	0.0606	1
10915	123789-HxCDF	72918-21-9	10.2	U	10.2	0.0644	1
10915	234678-HxCDF	60851-34-5	10.2	U	10.2	0.0602	1
10915	1234678-HpCDF	67562-39-4	0.414	JBQ	10.2	0.0413	1
10915	1234789-HpCDF	55673-89-7	10.2	U	10.2	0.0442	1
10915	OCDF	39001-02-0	0.740	JQ	20.4	0.102	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	0.0107				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	81	25 - 164
13C12-12378-PeCDD	83	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	92	17 - 157
13C12-2378-TCDF	80	24 - 169
13C12-12378-PeCDF	89	24 - 185
13C12-23478-PeCDF	82	21 - 178
13C12-123478-HxCDF	79	26 - 152
13C12-123678-HxCDF	83	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	84	29 - 147
13C12-1234678-HpCDF	81	28 - 143
13C12-1234789-HpCDF	85	26 - 138
13C12-OCDF	82	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: EB1-061214 Water
SSFL Phase 3

LL Sample # WW 7497925
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 15:00 by PH

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB112 SDG#: PH231-06EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: EB1-061214 Water
SSFL Phase 3

LL Sample # WW 7497925
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 15:00 by PH

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB112 SDG#: PH231-06EB

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14169WAD026	06/20/2014 06:43	Brian K Graham	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	14169WAD026	06/18/2014 19:00	Nicholas W Shroyer	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14170B94A	06/20/2014 14:05	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14170B94A	06/20/2014 14:05	Laura M Krieger	1
10407	24b Herbicides by EPA 8151A	SW-846 8151A	1	141680013A	06/20/2014 16:31	Lisa A Reinert	1
10589	22b Pesticides by EPA 8081B	SW-846 8081B	1	141680017A	06/18/2014 15:43	Jamie L Brillhart	1
13092	21b PCBs and PCTs 8082A	SW-846 8082A	1	141680016A	06/19/2014 02:17	Monica M Souders	1
13093	PCB/PCT Waters Update IV	SW-846 3510C	1	141680016A	06/17/2014 20:00	David V Hershey Jr	1
11120	Pesticide Waters Update IV Ext	SW-846 3510C	1	141680017A	06/17/2014 20:00	David V Hershey Jr	1
00816	Water Sample Herbicide Extract	SW-846 8151A	1	141680013A	06/17/2014 14:15	Kelli M Barto	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141690022A	06/20/2014 02:51	Heather E Williams	1
13205	10b TPH-DRO (w/Si Gel)	SW-846 8015B modified	1	141690021A	06/24/2014 03:29	Heather E Williams	1
13212	EFH Water Ext. w/SiGel	SW-846 3510C	1	141690021A	06/18/2014 21:00	Karen L Beyer	1
11203	EFH Waters Extraction	SW-846 3510C	1	141690022A	06/18/2014 21:00	Karen L Beyer	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14171001	06/24/2014 21:42	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B October 1994	1	14171001	06/21/2014 07:05	Ginelle L McQuaid	1
01743	Aluminum	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1
07044	Antimony	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1
07035	Arsenic	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1
07046	Barium	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1
07047	Beryllium	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1
08014	Boron	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1
07049	Cadmium	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1
01750	Calcium	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1
07051	Chromium	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1
07052	Cobalt	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1
07053	Copper	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1
01754	Iron	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1
07055	Lead	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1
01756	Lithium	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1
01757	Magnesium	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1
07058	Manganese	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: EB1-061214 Water
SSFL Phase 3

LL Sample # WW 7497925
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 15:00 by PH

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB112 SDG#: PH231-06EB

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07060	Molybdenum	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1
07061	Nickel	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1
10143	Phosphorus	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1
01762	Potassium	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1
01767	Sodium	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1
07069	Tin	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1
07070	Titanium	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1
07071	Vanadium	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1
07072	Zinc	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1
10144	Zirconium	SW-846 6010C	1	141640635001	06/16/2014 22:53	John P Hook	1
06041	Selenium	SW-846 6020A	1	141640639001B	06/17/2014 04:33	Choon Y Tian	1
06042	Silver	SW-846 6020A	1	141640639001A	06/17/2014 04:33	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	141640639001A	06/17/2014 04:33	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	141640639001A	06/17/2014 04:33	Choon Y Tian	1
00259	3b Mercury 7470A	SW-846 7470A	1	141645713003	06/17/2014 07:42	Damary Valentin	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	141640635001	06/16/2014 09:40	Micaela L Dishong	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	141640639001	06/16/2014 09:05	Micaela L Dishong	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	141645713003	06/16/2014 11:46	Micaela L Dishong	1
12152	28b pH (9040B and 9040C)	SW-846 9040C	1	14164121521A	06/13/2014 19:20	Luz M Groff	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-061214 Water
SSFL Phase 3

LL Sample # WW 7497926
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 15:30 by PH

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB212 SDG#: PH231-07EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	
12971	Acenaphthene	83-32-9	0.057	U	0.057	0.011	1
12971	Acenaphthylene	208-96-8	0.057	U	0.057	0.011	1
12971	Anthracene	120-12-7	0.057	U	0.057	0.011	1
12971	Benzo(a)anthracene	56-55-3	0.057	U	0.057	0.011	1
12971	Benzo(a)pyrene	50-32-8	0.057	U	0.057	0.011	1
12971	Benzo(b)fluoranthene	205-99-2	0.057	U	0.057	0.011	1
12971	Benzo(e)pyrene	192-97-2	0.057	U	0.057	0.011	1
12971	Benzo(g,h,i)perylene	191-24-2	0.057	U	0.057	0.011	1
12971	Benzo(k)fluoranthene	207-08-9	0.057	U	0.057	0.011	1
12971	Butylbenzylphthalate	85-68-7	1.1	U	1.1	0.057	1
12971	Di-n-butylphthalate	84-74-2	0.094	J	1.1	0.057	1
12971	Chrysene	218-01-9	0.057	U	0.057	0.011	1
12971	Dibenz(a,h)anthracene	53-70-3	0.057	U	0.057	0.011	1
12971	Diethylphthalate	84-66-2	0.080	J	1.1	0.057	1
12971	Dimethylphthalate	131-11-3	1.1	U	1.1	0.057	1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.15	J	1.1	0.057	1
12971	Fluoranthene	206-44-0	0.057	U	0.057	0.011	1
12971	Fluorene	86-73-7	0.057	U	0.057	0.011	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.057	U	0.057	0.011	1
12971	1-Methylnaphthalene	90-12-0	0.020	J	0.057	0.011	1
12971	2-Methylnaphthalene	91-57-6	0.028	J	0.057	0.011	1
12971	Naphthalene	91-20-3	0.058		0.057	0.034	1
12971	N-Nitrosodimethylamine	62-75-9	0.057	U	0.057	0.011	1
12971	Di-n-octylphthalate	117-84-0	1.1	U	1.1	0.057	1
12971	Phenanthrene	85-01-8	0.057	U	0.057	0.034	1
12971	Pyrene	129-00-0	0.057	U	0.057	0.011	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the result is within the acceptance range allowed by the method, the data is reported.

GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1
Pesticides/PCBs	**SW-846 8081B**		**ug/l**		**ug/l**	**ug/l**	
10589	Aldrin	309-00-2	0.0084	U	0.0084	0.0017	1
10589	Alpha BHC	319-84-6	0.0084	U	0.0084	0.0025	1
10589	Beta BHC	319-85-7	0.0090	U	0.0090	0.0090	1
10589	Gamma BHC - Lindane	58-89-9	0.0084	U	0.0084	0.0017	1
10589	Chlordane	57-74-9	0.42	U	0.42	0.14	1
10589	p,p-DDD	72-54-8	0.017	U	0.017	0.0042	1
10589	p,p-DDE	72-55-9	0.017	U	0.017	0.0042	1
10589	p,p-DDT	50-29-3	0.017	U	0.017	0.0044	1
10589	Delta BHC	319-86-8	0.0084	U	0.0084	0.0029	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-061214 Water
SSFL Phase 3

LL Sample # WW 7497926
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 15:30 by PH

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB212 SDG#: PH231-07EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/l**		**ug/l**	**ug/l**	
10589	Dieldrin	60-57-1	0.017	U	0.017	0.0045	1
10589	Endosulfan I	959-98-8	0.0084	U	0.0084	0.0036	1
10589	Endosulfan II	33213-65-9	0.017	U	0.017	0.013	1
10589	Endosulfan Sulfate	1031-07-8	0.017	U	0.017	0.0049	1
10589	Endrin	72-20-8	0.017	U	0.017	0.0068	1
10589	Endrin Aldehyde	7421-93-4	0.084	U	0.084	0.017	1
10589	Endrin Ketone	53494-70-5	0.017	U	0.017	0.0042	1
10589	Heptachlor	76-44-8	0.0084	U	0.0084	0.0017	1
10589	Heptachlor Epoxide	1024-57-3	0.0084	U	0.0084	0.0019	1
10589	Methoxychlor	72-43-5	0.084	U	0.084	0.025	1
10589	Mirex	2385-85-5	0.042	U	0.042	0.0084	1
10589	Toxaphene	8001-35-2	0.84	U	0.84	0.25	1

An interferent near the retention time of Beta-BHC was detected in the method blank associated with the sample. The reporting limit was raised to .009 ug/L.
The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Beta-BHC was not detected in the second trial.

Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	
13092	Aroclor 5432	63496-31-1	0.42	U	0.42	0.084	1
13092	Aroclor 5442	12642-23-8	0.42	U	0.42	0.084	1
13092	Aroclor 5460	11126-42-4	0.42	U	0.42	0.093	1
13092	PCB-1016	12674-11-2	0.42	U	0.42	0.084	1
13092	PCB-1221	11104-28-2	0.42	U	0.42	0.084	1
13092	PCB-1232	11141-16-5	0.42	U	0.42	0.17	1
13092	PCB-1242	53469-21-9	0.42	U	0.42	0.084	1
13092	PCB-1248	12672-29-6	0.42	U	0.42	0.084	1
13092	PCB-1254	11097-69-1	0.42	U	0.42	0.084	1
13092	PCB-1260	11096-82-5	0.42	U	0.42	0.13	1
13092	PCB-1262	37324-23-5	0.42	U	0.42	0.17	1
13092	PCB-1268	11100-14-4	0.42	U	0.42	0.14	1

The recovery for a target analyte(s) and the surrogates in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.

GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**		**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.099	U	0.099	0.049	1
10365	EFH (C15-C20)	n.a.	0.099	U	0.099	0.049	1
10365	EFH (C21-C30)	n.a.	0.099	U	0.099	0.049	1
10365	EFH (C30 - C40)	n.a.	0.49	U	0.49	0.099	1
10365	EFH (C8-C11)	n.a.	0.099	U	0.099	0.049	1
13205	EFH C12-C14 w/ SiGel	n.a.	0.099	U	0.099	0.049	1
13205	EFH C15-C20 w/ SiGel	n.a.	0.099	U	0.099	0.049	1
13205	EFH C21-C30 w/ SiGel	n.a.	0.099	U	0.099	0.049	1
13205	EFH C30-C40 w/ SiGel	n.a.	0.49	U	0.49	0.099	1
13205	EFH C8-C11 w/ SiGel	n.a.	0.099	U	0.099	0.049	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-061214 Water
SSFL Phase 3

LL Sample # WW 7497926
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 15:30 by PH

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB212 SDG#: PH231-07EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.					
Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400 U	0.400	0.0828	1
07044	Antimony	7440-36-0	0.0400 U	0.0400	0.0053	1
07035	Arsenic	7440-38-2	0.0400 U	0.0400	0.0068	1
07046	Barium	7440-39-3	0.0100 U	0.0100	0.00033	1
07047	Beryllium	7440-41-7	0.0100 U	0.0100	0.00067	1
08014	Boron	7440-42-8	0.100 U	0.100	0.0084	1
07049	Cadmium	7440-43-9	0.0100 U	0.0100	0.00076	1
01750	Calcium	7440-70-2	0.400 U	0.400	0.0334	1
07051	Chromium	7440-47-3	0.0300 U	0.0300	0.0016	1
07052	Cobalt	7440-48-4	0.0100 U	0.0100	0.0013	1
07053	Copper	7440-50-8	0.0200 U	0.0200	0.0027	1
01754	Iron	7439-89-6	0.400 U	0.400	0.0430	1
07055	Lead	7439-92-1	0.0300 U	0.0300	0.0047	1
01756	Lithium	7439-93-2	0.0400 U	0.0400	0.0047	1
01757	Magnesium	7439-95-4	0.200 U	0.200	0.0167	1
07058	Manganese	7439-96-5	0.0013 J	0.0100	0.00083	1
07060	Molybdenum	7439-98-7	0.0200 U	0.0200	0.0017	1
07061	Nickel	7440-02-0	0.0200 U	0.0200	0.0015	1
10143	Phosphorus	7723-14-0	0.200 U	0.200	0.0418	1
01762	Potassium	7440-09-7	1.00 U	1.00	0.0980	1
01767	Sodium	7440-23-5	2.00 U	2.00	0.167	1
07069	Tin	7440-31-5	0.0400 U	0.0400	0.0029	1
07070	Titanium	7440-32-6	0.0200 U	0.0200	0.0017	1
07071	Vanadium	7440-62-2	0.0100 U	0.0100	0.0020	1
07072	Zinc	7440-66-6	0.0400 U	0.0400	0.0020	1
10144	Zirconium	7440-67-7	0.0097 J	0.100	0.0084	1
	SW-846 6020A		**mg/l**	**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040 U	0.0040	0.00050	1
06042	Silver	7440-22-4	0.0010 U	0.0010	0.00011	1
06044	Strontium	7440-24-6	0.0020 U	0.0020	0.00034	1
06045	Thallium	7440-28-0	0.0010 U	0.0010	0.00015	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A	7439-97-6	0.00020 U	0.00020	0.000060	1
Wet Chemistry	**SW-846 9040C**		**Std. Units**	**Std. Units**	**Std. Units**	
12152	28b pH (9040B and 9040C)	n.a.	5.3	0.010	0.010	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-061214 Water
SSFL Phase 3

LL Sample # WW 7497926
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 15:30 by PH

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB212 SDG#: PH231-07EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	
10915	2378-TCDD	1746-01-6	1.97	U	1.97	0.197	1
10915	12378-PeCDD	40321-76-4	0.251	JQ	9.86	0.171	1
10915	123478-HxCDD	39227-28-6	9.86	U	9.86	0.133	1
10915	123678-HxCDD	57653-85-7	9.86	U	9.86	0.145	1
10915	123789-HxCDD	19408-74-3	0.244	JBQ	9.86	0.132	1
10915	1234678-HpCDD	35822-46-9	1.68	JB	9.86	0.140	1
10915	OCDD	3268-87-9	13.9	JB	19.7	0.136	1
10915	2378-TCDF	51207-31-9	1.97	U	1.97	0.0942	1
10915	12378-PeCDF	57117-41-6	9.86	U	9.86	0.0654	1
10915	23478-PeCDF	57117-31-4	0.234	JQ	9.86	0.0682	1
10915	123478-HxCDF	70648-26-9	0.207	JBQ	9.86	0.0719	1
10915	123678-HxCDF	57117-44-9	9.86	U	9.86	0.0706	1
10915	123789-HxCDF	72918-21-9	0.190	JBQ	9.86	0.0721	1
10915	234678-HxCDF	60851-34-5	0.257	JBQ	9.86	0.0660	1
10915	1234678-HpCDF	67562-39-4	0.365	JB	9.86	0.0601	1
10915	1234789-HpCDF	55673-89-7	0.367	JQ	9.86	0.0701	1
10915	OCDF	39001-02-0	1.06	JQ	19.7	0.103	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	0.0247				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	79	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	77	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	81	24 - 185
13C12-23478-PeCDF	75	21 - 178
13C12-123478-HxCDF	74	26 - 152
13C12-123678-HxCDF	79	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	82	29 - 147
13C12-1234678-HpCDF	78	28 - 143
13C12-1234789-HpCDF	76	26 - 138
13C12-OCDF	73	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: EB2-061214 Water
SSFL Phase 3

LL Sample # WW 7497926
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 15:30 by PH

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB212 SDG#: PH231-07EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: EB2-061214 Water
SSFL Phase 3

LL Sample # WW 7497926
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 15:30 by PH

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB212 SDG#: PH231-07EB*

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14169WAD026	06/20/2014 07:10	Brian K Graham	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	14169WAD026	06/18/2014 19:00	Nicholas W Shroyer	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14170B94A	06/20/2014 14:31	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14170B94A	06/20/2014 14:31	Laura M Krieger	1
10589	22b Pesticides by EPA 8081B	SW-846 8081B	1	141680017A	06/18/2014 15:57	Jamie L Brillhart	1
13092	21b PCBs and PCTs 8082A	SW-846 8082A	1	141680016A	06/19/2014 02:35	Monica M Souders	1
13093	PCB/PCT Waters Update IV	SW-846 3510C	1	141680016A	06/17/2014 20:00	David V Hershey Jr	1
11120	Pesticide Waters Update IV Ext	SW-846 3510C	1	141680017A	06/17/2014 20:00	David V Hershey Jr	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141690022A	06/20/2014 03:12	Heather E Williams	1
13205	10b TPH-DRO (w/Si Gel)	SW-846 8015B modified	1	141690021A	06/24/2014 03:51	Heather E Williams	1
13212	EFH Water Ext. w/SiGel	SW-846 3510C	1	141690021A	06/18/2014 21:00	Karen L Beyer	1
11203	EFH Waters Extraction	SW-846 3510C	1	141690022A	06/18/2014 21:00	Karen L Beyer	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14171001	06/25/2014 03:37	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B October 1994	1	14171001	06/21/2014 07:05	Ginelle L McQuaid	1
01743	Aluminum	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1
07044	Antimony	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1
07035	Arsenic	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1
07046	Barium	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1
07047	Beryllium	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1
08014	Boron	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1
07049	Cadmium	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1
01750	Calcium	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1
07051	Chromium	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1
07052	Cobalt	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1
07053	Copper	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1
01754	Iron	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1
07055	Lead	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1
01756	Lithium	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1
01757	Magnesium	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1
07058	Manganese	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1
07060	Molybdenum	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1
07061	Nickel	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1
10143	Phosphorus	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1
01762	Potassium	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-061214 Water
SSFL Phase 3

LL Sample # WW 7497926
LL Group # 1481665
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/12/2014 15:30 by PH

Submitted: 06/13/2014 09:30
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB212 SDG#: PH231-07EB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01767	Sodium	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1
07069	Tin	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1
07070	Titanium	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1
07071	Vanadium	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1
07072	Zinc	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1
10144	Zirconium	SW-846 6010C	1	141640635001	06/16/2014 22:57	John P Hook	1
06041	Selenium	SW-846 6020A	1	141640639001B	06/17/2014 04:35	Choon Y Tian	1
06042	Silver	SW-846 6020A	1	141640639001A	06/17/2014 04:35	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	141640639001A	06/17/2014 04:35	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	141640639001A	06/17/2014 04:35	Choon Y Tian	1
00259	3b Mercury 7470A	SW-846 7470A	1	141645713003	06/17/2014 07:48	Damary Valentin	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	141640635001	06/16/2014 09:40	Micaela L Dishong	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	141640639001	06/16/2014 09:05	Micaela L Dishong	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	141645713003	06/16/2014 11:46	Micaela L Dishong	1
12152	28b pH (9040B and 9040C)	SW-846 9040C	1	14164121521A	06/13/2014 19:20	Luz M Groff	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481665
Reported: 07/07/14 at 12:26 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14169WAD026	Sample number(s): 7497925-7497926									
Acenaphthene	0.013	U	0.013	0.0025	ug/l	108	108	83-119	0	30
Acenaphthylene	0.013	U	0.013	0.0025	ug/l	99	100	81-130	1	30
Anthracene	0.013	U	0.013	0.0025	ug/l	101	104	83-125	3	30
Benzo(a)anthracene	0.013	U	0.013	0.0025	ug/l	99	100	79-122	1	30
Benzo(a)pyrene	0.013	U	0.013	0.0025	ug/l	100	105	80-121	5	30
Benzo(b)fluoranthene	0.013	U	0.013	0.0025	ug/l	102	107	79-136	5	30
Benzo(e)pyrene	0.013	U	0.013	0.0025	ug/l	99	103	67-118	4	30
Benzo(g,h,i)perylene	0.013	U	0.013	0.0025	ug/l	93	102	72-132	9	30
Benzo(k)fluoranthene	0.013	U	0.013	0.0025	ug/l	101	107	81-131	6	30
Butylbenzylphthalate	0.25	U	0.25	0.013	ug/l	87	87	40-138	0	30
Di-n-butylphthalate	0.024	J	0.25	0.013	ug/l	92	99	64-141	7	30
Chrysene	0.013	U	0.013	0.0025	ug/l	104	106	84-118	2	30
Dibenz(a,h)anthracene	0.013	U	0.013	0.0025	ug/l	85	89	66-133	5	30
Diethylphthalate	0.013	J	0.25	0.013	ug/l	95	96	64-137	1	30
Dimethylphthalate	0.25	U	0.25	0.013	ug/l	89	88	23-139	1	30
Bis(2-Ethylhexyl)phthalate	0.16	J	0.25	0.013	ug/l	60*	72	70-143	18	30
Fluoranthene	0.013	U	0.013	0.0025	ug/l	96	99	84-124	2	30
Fluorene	0.013	U	0.013	0.0025	ug/l	100	102	82-119	2	30
Indeno(1,2,3-cd)pyrene	0.013	U	0.013	0.0025	ug/l	88	94	68-132	7	30
1-Methylnaphthalene	0.013	U	0.013	0.0025	ug/l	92	94	86-130	2	30
2-Methylnaphthalene	0.013	U	0.013	0.0025	ug/l	87	89	81-131	2	30
Naphthalene	0.013	U	0.013	0.0075	ug/l	94	96	82-122	1	30
N-Nitrosodimethylamine	0.013	U	0.013	0.0025	ug/l	55*	55*	56-96	1	30
Di-n-octylphthalate	0.25	U	0.25	0.013	ug/l	49*	59	57-145	19	30
Phenanthrene	0.013	U	0.013	0.0075	ug/l	99	101	83-116	2	30
Pyrene	0.013	U	0.013	0.0025	ug/l	99	99	78-125	1	30
Batch number: 14174SLA026	Sample number(s): 7497920-7497923									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	111		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	105		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	103		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	110		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	101		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	110		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	96		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	98		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	105		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	100		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	98		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	112		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	101		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	105		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	105		85-122		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481665
Reported: 07/07/14 at 12:26 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	102		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	110		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	113		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	98		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	105		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	107		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	103		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	108		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	99		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	102		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	101		80-119		
Batch number: 14170B94A	Sample number(s): 7497925-7497926									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	94	93	80-133	1	30
Batch number: 141680013A	Sample number(s): 7497925									
2,4-D	0.50	U	0.50	0.16	ug/l	110	112	68-155	1	30
Dalapon	1.3	U	1.3	0.25	ug/l	64	66	27-127	3	30
2,4-DB	1.0	U	1.0	0.30	ug/l	107	113	60-172	5	30
Dicamba	0.30	U	0.30	0.080	ug/l	96	97	65-142	1	30
Dinoseb	0.50	U	0.50	0.12	ug/l	118	123	16-163	4	30
2,4-DP (Dichlorprop)	0.50	U	0.50	0.16	ug/l	120	123	91-181	2	30
MCPA	200	U	200.	50	ug/l	86	88	65-128	2	30
MCPP	200	U	200.	50	ug/l	91	96	61-145	6	30
2,4,5-T	0.050	U	0.050	0.015	ug/l	119	120	67-163	1	30
2,4,5-TP	0.012	J	0.050	0.010	ug/l	105	110	71-162	5	30
Batch number: 141680016A	Sample number(s): 7497925-7497926									
Aroclor 5432	0.40	U	0.40	0.080	ug/l					
Aroclor 5442	0.40	U	0.40	0.080	ug/l	68	75	34-115	9	30
Aroclor 5460	0.40	U	0.40	0.088	ug/l					
PCB-1016	0.40	U	0.40	0.080	ug/l	41*	86	60-117	71*	30
PCB-1221	0.40	U	0.40	0.080	ug/l					
PCB-1232	0.40	U	0.40	0.16	ug/l					
PCB-1242	0.40	U	0.40	0.080	ug/l					
PCB-1248	0.40	U	0.40	0.080	ug/l					
PCB-1254	0.40	U	0.40	0.080	ug/l					
PCB-1260	0.40	U	0.40	0.12	ug/l	44*	91	67-128	70*	30
PCB-1262	0.40	U	0.40	0.16	ug/l					
PCB-1268	0.40	U	0.40	0.13	ug/l					
Batch number: 141680017A	Sample number(s): 7497925-7497926									
Aldrin	0.0080	U	0.0080	0.0016	ug/l	77	85	37-137	9	30
Alpha BHC	0.0080	U	0.0080	0.0024	ug/l	111	117	44-148	6	30
Beta BHC	0.0090	U	0.0090	0.0090	ug/l	104	109	48-147	5	30
Gamma BHC - Lindane	0.0080	U	0.0080	0.0016	ug/l	112	119	44-146	5	30
Chlordane	0.40	U	0.40	0.13	ug/l					
p,p-DDD	0.016	U	0.016	0.0040	ug/l	110	118	44-152	7	30
p,p-DDE	0.016	U	0.016	0.0040	ug/l	108	114	44-146	6	30
p,p-DDT	0.016	U	0.016	0.0042	ug/l	112	119	44-146	7	30
Delta BHC	0.0080	U	0.0080	0.0027	ug/l	115	121	47-146	5	30
Dieldrin	0.016	U	0.016	0.0042	ug/l	109	115	45-146	5	30
Endosulfan I	0.0080	U	0.0080	0.0034	ug/l	98	102	39-140	4	30
Endosulfan II	0.016	U	0.016	0.012	ug/l	106	113	45-139	6	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481665
Reported: 07/07/14 at 12:26 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Endosulfan Sulfate	0.016	U	0.016	0.0046	ug/l	112	120	48-139	7	30
Endrin	0.016	U	0.016	0.0065	ug/l	94	109	43-139	14	30
Endrin Aldehyde	0.080	U	0.080	0.016	ug/l	106	109	43-144	4	20
Endrin Ketone	0.016	U	0.016	0.0040	ug/l	113	115	42-152	2	30
Heptachlor	0.0080	U	0.0080	0.0016	ug/l	91	99	36-146	8	30
Heptachlor Epoxide	0.0080	U	0.0080	0.0018	ug/l	104	108	49-142	4	30
Methoxychlor	0.080	U	0.080	0.024	ug/l	107	114	40-150	6	30
Mirex	0.040	U	0.040	0.0080	ug/l					
Toxaphene	0.80	U	0.80	0.24	ug/l					
Batch number: 141690028A	Sample number(s): 7497920-7497923									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	82	83	36-106	0	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	100		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	105		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141700007A	Sample number(s): 7497920-7497921									
Aldrin	0.83	U	0.83	0.17	ug/kg	108		60-118		
Alpha BHC	0.83	U	0.83	0.17	ug/kg	114		55-135		
Beta BHC	1.9	U	1.9	0.96	ug/kg	116		67-129		
Gamma BHC - Lindane	0.83	U	0.83	0.17	ug/kg	109		56-138		
Chlordane	17	U	17.	4.0	ug/kg					
p,p-DDD	1.7	U	1.7	0.33	ug/kg	110		69-141		
p,p-DDE	1.7	U	1.7	0.33	ug/kg	102		69-130		
p,p-DDT	1.7	U	1.7	0.35	ug/kg	108		64-139		
Delta BHC	0.83	U	0.83	0.45	ug/kg	114		59-137		
Dieldrin	1.7	U	1.7	0.33	ug/kg	100		68-134		
Endosulfan I	0.83	U	0.83	0.22	ug/kg	84		56-128		
Endosulfan II	1.7	U	1.7	0.33	ug/kg	96		68-128		
Endosulfan Sulfate	1.7	U	1.7	0.33	ug/kg	105		71-132		
Endrin	1.7	U	1.7	0.33	ug/kg	102		70-132		
Endrin Aldehyde	1.7	U	1.7	0.33	ug/kg	98		61-125		
Endrin Ketone	1.8	U	1.8	0.60	ug/kg	102		69-126		
Heptachlor	0.83	U	0.83	0.17	ug/kg	108		57-130		
Heptachlor Epoxide	0.83	U	0.83	0.17	ug/kg	99		69-125		
Methoxychlor	6.7	U	6.7	1.7	ug/kg	109		67-136		
Mirex	1.7	U	1.7	0.35	ug/kg					
Toxaphene	33	U	33.	14	ug/kg					
Batch number: 141750017A	Sample number(s): 7497924									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	93	94	36-106	1	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	107		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481665
Reported: 07/07/14 at 12:26 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	110		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141670004A	Sample number(s): 7497920-7497924									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	94		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	96		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	94		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	91		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	77		60-115		
Batch number: 141670005A	Sample number(s): 7497920-7497924									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	68*		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	71*		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	70*		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	72		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	52*		60-115		
Batch number: 141690021A	Sample number(s): 7497925-7497926									
EFH C12-C14 w/ SiGel	0.10	U	0.10	0.050	mg/l	65*	70	67-109	8	30
EFH C15-C20 w/ SiGel	0.10	U	0.10	0.050	mg/l	71	75	71-119	6	30
EFH C21-C30 w/ SiGel	0.10	U	0.10	0.050	mg/l	70*	75	75-117	7	30
EFH C30-C40 w/ SiGel	0.50	U	0.50	0.10	mg/l	72	74	44-134	2	30
EFH C8-C11 w/ SiGel	0.10	U	0.10	0.050	mg/l	42*	49*	55-86	14	30
Batch number: 141690022A	Sample number(s): 7497925-7497926									
EFH (C12-C14)	0.10	U	0.10	0.050	mg/l	96	91	67-109	5	30
EFH (C15-C20)	0.10	U	0.10	0.050	mg/l	104	96	71-119	8	30
EFH (C21-C30)	0.10	U	0.10	0.050	mg/l	103	96	75-117	7	30
EFH (C30 - C40)	0.50	U	0.50	0.10	mg/l	88	85	44-134	4	30
EFH (C8-C11)	0.10	U	0.10	0.050	mg/l	63	64	55-86	2	30
Batch number: 141640635001	Sample number(s): 7497925-7497926									
Aluminum	0.400	U	0.400	0.0828	mg/l	109	106	90-112	3	20
Antimony	0.0400	U	0.0400	0.0053	mg/l	100	98	88-111	1	20
Arsenic	0.0400	U	0.0400	0.0068	mg/l	110	108	90-113	1	20
Barium	0.0100	U	0.0100	0.00033	mg/l	108	107	90-110	1	20
Beryllium	0.0100	U	0.0100	0.00067	mg/l	108	106	90-111	2	20
Boron	0.100	U	0.100	0.0084	mg/l	100	99	90-110	2	20
Cadmium	0.0100	U	0.0100	0.00076	mg/l	110	108	90-112	2	20
Calcium	0.400	U	0.400	0.0334	mg/l	109	106	90-112	2	20
Chromium	0.0300	U	0.0300	0.0016	mg/l	106	103	90-110	3	20
Cobalt	0.0100	U	0.0100	0.0013	mg/l	111	109	90-114	2	20
Copper	0.0200	U	0.0200	0.0027	mg/l	107	104	90-112	2	20
Iron	0.400	U	0.400	0.0430	mg/l	109	107	90-112	2	20
Lead	0.0300	U	0.0300	0.0047	mg/l	110	108	88-116	2	20
Lithium	0.0400	U	0.0400	0.0047	mg/l	108	105	90-110	3	20
Magnesium	0.200	U	0.200	0.0167	mg/l	108	106	89-110	2	20
Manganese	0.0014	J	0.0100	0.00083	mg/l	105	107	90-110	2	20
Molybdenum	0.0200	U	0.0200	0.0017	mg/l	108	106	90-110	2	20
Nickel	0.0016	J	0.0200	0.0015	mg/l	113	111	90-117	2	20
Phosphorus	0.200	U	0.200	0.0418	mg/l	107	104	90-110	3	20
Potassium	1.00	U	1.00	0.0980	mg/l	105	102	90-110	3	20
Sodium	2.00	U	2.00	0.167	mg/l	105	102	87-114	3	20
Tin	0.0400	U	0.0400	0.0029	mg/l	106	103	90-110	2	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481665
Reported: 07/07/14 at 12:26 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Titanium	0.0200 U	0.0200	0.0017	mg/l	108	106	90-113	2	20
Vanadium	0.0100 U	0.0100	0.0020	mg/l	110	108	90-110	2	20
Zinc	0.0047 J	0.0400	0.0020	mg/l	107	106	90-110	2	20
Zirconium	0.0094 J	0.100	0.0084	mg/l	107	104	90-110	3	20
Batch number: 141640639001A	Sample number(s): 7497925-7497926								
Silver	0.0010 U	0.0010	0.00011	mg/l	103	103	90-115	1	20
Strontium	0.0020 U	0.0020	0.00034	mg/l	103	102	90-110	1	20
Thallium	0.0010 U	0.0010	0.00015	mg/l	105	101	90-115	3	20
Batch number: 141640639001B	Sample number(s): 7497925-7497926								
Selenium	0.0040 U	0.0040	0.00050	mg/l	101	101	90-114	0	20
Batch number: 141645713003	Sample number(s): 7497925-7497926								
3b Mercury 7470A	0.00020 U	0.00020	0.00006 0	mg/l	98	94	90-115	4	20
Batch number: 141680637002	Sample number(s): 7497920-7497923								
Aluminum	10.0 J	40.0	7.21	mg/kg	107		80-120		
Antimony	4.00 U	4.00	0.740	mg/kg	105		80-120		
Arsenic	4.00 U	4.00	0.700	mg/kg	105		80-120		
Barium	1.00 U	1.00	0.0330	mg/kg	102		80-120		
Beryllium	1.00 U	1.00	0.0670	mg/kg	102		80-120		
Boron	1.76 J	10.0	0.840	mg/kg	99		80-120		
Cadmium	1.00 U	1.00	0.0760	mg/kg	103		80-120		
Calcium	24.6	20.0	3.34	mg/kg	105		80-120		
Chromium	3.00 U	3.00	0.160	mg/kg	103		80-120		
Cobalt	1.00 U	1.00	0.0990	mg/kg	105		80-120		
Copper	2.00 U	2.00	0.290	mg/kg	103		80-120		
Iron	40.0 U	40.0	3.62	mg/kg	104		80-120		
Lead	3.00 U	3.00	0.500	mg/kg	108		80-120		
Lithium	4.0 U	4.0	0.34	mg/kg	101		80-120		
Magnesium	10.0 U	10.0	1.67	mg/kg	103		80-120		
Manganese	1.00 U	1.00	0.0830	mg/kg	102		80-120		
Molybdenum	2.00 U	2.00	0.170	mg/kg	102		80-120		
Nickel	2.00 U	2.00	0.130	mg/kg	108		80-120		
Phosphorus	10.0 U	10.0	2.89	mg/kg	104		80-120		
Potassium	100 U	100.	8.34	mg/kg	99		80-120		
Sodium	100 U	100.	16.7	mg/kg	101		80-120		
Tin	1.46 J	10.0	0.220	mg/kg	101		80-120		
Titanium	1.00 U	1.00	0.170	mg/kg	104		80-120		
Vanadium	1.00 U	1.00	0.130	mg/kg	104		80-120		
Zinc	0.386 J	4.00	0.200	mg/kg	103		80-120		
Zirconium	5.00 U	5.00	0.840	mg/kg	102		80-120		
Batch number: 141680637002A	Sample number(s): 7497920-7497923								
Silver	0.200 U	0.200	0.0260	mg/kg	103		80-120		
Strontium	0.134 J	0.400	0.0680	mg/kg	100		80-120		
Thallium	0.200 U	0.200	0.0300	mg/kg	102		80-120		
Batch number: 141680637002B	Sample number(s): 7497920-7497923								
Selenium	0.400 U	0.400	0.100	mg/kg	103		80-120		
Batch number: 141680638002	Sample number(s): 7497920-7497923								

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Quality Control Summary

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Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
3a Mercury 7471A	0.0167 U	0.0167	0.0100	mg/kg	85		85-120		
Batch number: 14164039402A	Sample number(s): 7497920-7497923								
15a pH by 9045D					100		95-105		
Batch number: 14164121521A	Sample number(s): 7497925-7497926								
28b pH (9040B and 9040C)					100	100	90-110	0	3
Batch number: 14170162401B	Sample number(s): 7497920-7497924								
14a Moisture Content by 160.3					100		80-120		

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14167007	Sample number(s): 7497920-7497921								
2378-TCDD	1.00 U	1.00	0.122	ng/kg	97		67-158		
12378-PeCDD	5.00 U	5.00	0.0777	ng/kg	106		70-142		
123478-HxCDD	5.00 U	5.00	0.0407	ng/kg	103		70-164		
123678-HxCDD	5.00 U	5.00	0.0437	ng/kg	103		76-134		
123789-HxCDD	5.00 U	5.00	0.0420	ng/kg	105		64-162		
1234678-HpCDD	0.114 J	5.00	0.0370	ng/kg	100		70-140		
OCDD	0.525 J	10.0	0.0298	ng/kg	100		78-144		
2378-TCDF	0.0972 J	1.00	0.0957	ng/kg	116		75-158		
12378-PeCDF	0.0617 J	5.00	0.0335	ng/kg	101		80-134		
23478-PeCDF	0.0610 J	5.00	0.0348	ng/kg	104		68-160		
123478-HxCDF	5.00 U	5.00	0.0416	ng/kg	104		72-134		
123678-HxCDF	5.00 U	5.00	0.0354	ng/kg	108		84-130		
123789-HxCDF	5.00 U	5.00	0.0501	ng/kg	109		78-130		
234678-HxCDF	0.0544 J	5.00	0.0373	ng/kg	105		70-156		
1234678-HpCDF	0.0502 J	5.00	0.0103	ng/kg	97		82-122		
1234789-HpCDF	0.0604 J	5.00	0.0226	ng/kg	101		78-138		
OCDF	0.298 J	10.0	0.0841	ng/kg	105		63-170		
Batch number: 14171001	Sample number(s): 7497925-7497926								
2378-TCDD	2.00 U	2.00	0.366	pg/l	93		60-150		
12378-PeCDD	10.0 U	10.0	0.427	pg/l	92		60-150		
123478-HxCDD	10.0 U	10.0	0.238	pg/l	93		60-150		
123678-HxCDD	10.0 U	10.0	0.242	pg/l	92		60-150		
123789-HxCDD	0.332 J	10.0	0.244	pg/l	94		60-150		
1234678-HpCDD	1.63 J	10.0	0.205	pg/l	91		60-150		
OCDD	6.91 J	20.0	0.434	pg/l	89		60-150		
2378-TCDF	2.00 U	2.00	0.323	pg/l	88		60-150		
12378-PeCDF	0.375 J	10.0	0.162	pg/l	93		60-150		
23478-PeCDF	10.0 U	10.0	0.181	pg/l	94		60-150		
123478-HxCDF	0.271 J	10.0	0.170	pg/l	98		60-150		
123678-HxCDF	0.341 J	10.0	0.144	pg/l	100		60-150		
123789-HxCDF	0.269 J	10.0	0.172	pg/l	97		60-150		
234678-HxCDF	0.297 J	10.0	0.162	pg/l	94		60-150		
1234678-HpCDF	0.324 J	10.0	0.129	pg/l	96		60-150		
1234789-HpCDF	10.0 U	10.0	0.148	pg/l	93		60-150		
OCDF	20.0 U	20.0	0.342	pg/l	92		60-150		
Batch number: 14167007	Sample number(s): 7497920-7497921								
TEQ WHO 2005 - EDLx0.0	0.000502			ng/kg					

*- Outside of specification
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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481665
Reported: 07/07/14 at 12:26 PM

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14171001	Sample number(s): 7497925-7497926								
TEQ WHO 2005 - EDLx0.0	U			pg/l					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14174SLA026	Sample number(s): 7497920-7497923 UNSPK: P502707								
Acenaphthene	104	104	48-127	1	30				
Acenaphthylene	103	103	60-128	0	30				
Anthracene	103	102	52-126	0	30				
Benzo(a)anthracene	110	107	44-143	2	30				
Benzo(a)pyrene	95	95	49-137	0	30				
Benzo(b)fluoranthene	123	123	26-142	0	30				
Benzo(e)pyrene	98	98	63-111	0	30				
Benzo(g,h,i)perylene	48	45	33-141	5	30				
Benzo(k)fluoranthene	106	107	49-144	0	30				
Butylbenzylphthalate	115	119	64-156	4	30				
Di-n-butylphthalate	107	105	52-147	1	30				
Chrysene	106	103	43-141	3	30				
Dibenz(a,h)anthracene	59	57	25-145	4	30				
Diethylphthalate	101	101	66-140	0	30				
Dimethylphthalate	98	101	70-123	2	30				
Bis(2-Ethylhexyl)phthalate	107	110	48-164	3	30				
Fluoranthene	108	109	38-153	1	30				
Fluorene	108	108	57-130	0	30				
Indeno(1,2,3-cd)pyrene	55	53	26-139	5	30				
1-Methylnaphthalene	104	104	59-139	0	30				
2-Methylnaphthalene	107	107	46-147	1	30				
Naphthalene	103	103	52-136	0	30				
N-Nitrosodimethylamine	105	105	39-134	1	30				
Di-n-octylphthalate	172*	178*	52-162	3	30				
Phenanthrene	100	101	50-137	0	30				
Pyrene	102	103	26-143	0	30				
Batch number: 141690028A	Sample number(s): 7497920-7497923 UNSPK: P494369								
PCB-1016	96	78	41-135	22	50				
PCB-1260	102	83	40-134	22	50				
Batch number: 141700007A	Sample number(s): 7497920-7497921 UNSPK: 7497920								
Aldrin	110	95	16-126	14	50				
Alpha BHC	121	114	14-140	6	50				
Beta BHC	153*	99	42-133	43	50				
Gamma BHC - Lindane	101	95	30-137	6	50				
p,p-DDD	117	107	43-149	9	50				
p,p-DDE	111	98	35-152	12	50				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481665
Reported: 07/07/14 at 12:26 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
p,p-DDT	149	137	12-193	9	50				
Delta BHC	93	85	13-153	9	50				
Dieldrin	103	94	41-153	10	50				
Endosulfan I	92	84	26-146	9	50				
Endosulfan II	98	90	34-141	9	50				
Endosulfan Sulfate	121	113	10-181	7	50				
Endrin	103	94	30-152	8	50				
Endrin Aldehyde	102	99	23-138	3	50				
Endrin Ketone	112	103	30-148	8	50				
Heptachlor	112	107	16-152	4	50				
Heptachlor Epoxide	98	93	33-144	5	50				
Methoxychlor	149	138	41-161	8	50				
Batch number: 141750017A	Sample number(s): 7497924 UNSPK: P501187								
PCB-1016	86	100	41-135	15	50				
PCB-1260	88	109	40-134	20	50				
Batch number: 141670004A	Sample number(s): 7497920-7497924 UNSPK: P492863								
EFH (C12-C14)	146*	135*	49-123	8	20				
EFH (C15-C20)	118	107	49-123	7	20				
EFH (C21-C30)	137*	130*	49-123	2	20				
EFH (C30-C40)	163*	195*	49-123	6	20				
EFH (C8-C11)	91	95	49-123	5	20				
Batch number: 141670005A	Sample number(s): 7497920-7497924 UNSPK: P492863								
EFH C12-C14 w/ SiGel	100	81	49-123	21*	20				
EFH C15-C20 w/ SiGel	77	66	49-123	15	20				
EFH C21-C30 w/ SiGel	60	55	49-123	6	20				
EFH C30-C40 w/ SiGel	89	83	49-123	7	20				
EFH C8-C11 w/ SiGel	52	47*	49-123	11	20				
Batch number: 141680637002	Sample number(s): 7497920-7497923 UNSPK: P501188 BKG: P501188								
Aluminum	1032 (2)	806 (2)	75-125	3	20	15,000	15,000	0	20
Antimony	47*	49*	75-125	3	20	3.92 U	3.96 U	0 (1)	20
Arsenic	98	98	75-125	1	20	5.68	5.34	6 (1)	20
Barium	94	88	75-125	5	20	104	107	3	20
Beryllium	102	102	75-125	2	20	0.566 J	0.570 J	1 (1)	20
Boron	98	97	75-125	2	20	4.31 J	4.09 J	5 (1)	20
Cadmium	93	93	75-125	2	20	0.980 U	0.990 U	0 (1)	20
Calcium	150 (2)	103 (2)	75-125	7	20	2,210	2,360	7	20
Chromium	112	94	75-125	10	20	19.0	20.0	5	20
Cobalt	95	95	75-125	2	20	4.78	4.98	4 (1)	20
Copper	102	95	75-125	7	20	11.5	11.7	1	20
Iron	-493 (2)	-449 (2)	75-125	0	20	18,800	18,800	0	20
Lead	132*	84	75-125	28*	20	10.4	7.96	26* (1)	20
Lithium	103	108	75-125	2	20	20.1	18.9	6 (1)	20
Magnesium	95 (2)	21 (2)	75-125	4	20	4,030	4,040	0	20
Manganese	73 (2)	41 (2)	75-125	5	20	313	332	6	20
Molybdenum	95	95	75-125	2	20	0.404 J	0.410 J	1 (1)	20
Nickel	97	94	75-125	4	20	12.8	12.4	3	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481665
Reported: 07/07/14 at 12:26 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Phosphorus	92 (2)	151 (2)	75-125	10	20	424	434	2	20
Potassium	124	122	75-125	1	20	3,560	3,680	3	20
Sodium	103	105	75-125	0	20	76.0 J	72.5 J	5 (1)	20
Tin	89	89	75-125	2	20	2.54 J	2.52 J	1 (1)	20
Titanium	244 (2)	196 (2)	75-125	4	20	1,040	1,040	0	20
Vanadium	102	96	75-125	4	20	35.0	33.9	3	20
Zinc	95	93	75-125	2	20	57.1	56.0	2	20
Zirconium	97	99	75-125	0	20	2.95 J	3.36 J	13 (1)	20
Batch number: 141680637002A	Sample number(s): 7497920-7497923 UNSPK: P501188 BKG: P501188								
Silver	128*	128*	75-125	2	20	0.0414 J	0.0323 J	25* (1)	20
Strontium	148*	71*	75-125	21*	20	22.0	23.1	5	20
Thallium	125	115	75-125	6	20	0.266	0.255	4 (1)	20
Batch number: 141680637002B	Sample number(s): 7497920-7497923 UNSPK: P501188 BKG: P501188								
Selenium	116	116	75-125	1	20	0.265 J	0.259 J	2 (1)	20
Batch number: 141680638002	Sample number(s): 7497920-7497923 UNSPK: P501188 BKG: P501188								
3a Mercury 7471A	89	86	65-135	1	20	0.0200	0.0182	10 (1)	20
Batch number: 14164039402A	Sample number(s): 7497920-7497923 BKG: 7497921								
15a pH by 9045D						8.08	8.11	0	3
Batch number: 14170162401B	Sample number(s): 7497920-7497924 BKG: P497908								
14a Moisture Content by 160.3						4.5	4.4	2	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7b SVOC SIM EPA 8270D
Batch number: 14169WAD026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7497925	96	106	87
7497926	97	105	89
Blank	103	113	91
LCS	97	110	90
LCSD	98	114	90
Limits:	59-128	62-141	70-134

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14174SLA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481665
Reported: 07/07/14 at 12:26 PM

Surrogate Quality Control

7497920	109	115	93
7497921	112	117	98
7497922	103	105	92
7497923	99	103	87
Blank	111	114	100
LCS	110	115	99
MS	112	110	99
MSD	112	109	98
Limits:	59-115	61-118	70-127

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14170B94A

	Trifluorotoluene-F
7497925	90
7497926	93
Blank	82
LCS	93
LCSD	91
Limits:	63-135

Analysis Name: 24b Herbicides by EPA 8151A
Batch number: 141680013A

	2,4-Dichlorophenylacetic acid
7497925	71
Blank	67
LCS	99
LCSD	98
Limits:	50-150

Analysis Name: 21b PCBs and PCTs 8082A
Batch number: 141680016A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7497925	100	100
7497926	91	78
Blank	90	89
LCS	43*	39*
LCSD	90	81
Limits:	45-120	45-120

Analysis Name: 22b Pesticides by EPA 8081B
Batch number: 141680017A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7497925	105	114
7497926	91	88
Blank	86	96
LCS	94	100

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481665
Reported: 07/07/14 at 12:26 PM

Surrogate Quality Control

LCSD	95	105
Limits:	60-140	20-120

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141690028A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7497920	92	87
7497921	81	74
7497922	110	98
7497923	109	100
Blank	66	62
LCS	104	95
LCSD	99	91
MS	107	101
MSD	81	75
Limits:	45-120	45-120

Analysis Name: 20a Pesticides by EPA 8081B
Batch number: 141700007A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7497920	104	105
7497921	99	111
Blank	102	111
LCS	112	118
MS	109	109
MSD	122	103
Limits:	50-130	20-120

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141750017A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7497924	118	112
Blank	125*	106
LCS	122*	110
LCSD	121*	112
MS	100	93
MSD	118	107
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141670004A

	Chlorobenzene	Orthoterphenyl
7497920	92	96
7497921	90	92
7497922	77	99
7497923	92	97
7497924	91	96
Blank	97	101

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481665
Reported: 07/07/14 at 12:26 PM

Surrogate Quality Control

LCS	74	96
MS	76	97
MSD	74	95
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141670005A

	Chlorobenzene	Orthoterphenyl
7497920	56	68
7497921	55	66
7497922	52	60*
7497923	58	68
7497924	57	70
Blank	57	66
LCS	57	68
MS	59	69
MSD	52	61*
Limits:	37-125	66-123

Analysis Name: 10b TPH-DRO (w/Si Gel)
Batch number: 141690021A

	Chlorobenzene	Orthoterphenyl
7497925	69	72
7497926	69	70
Blank	56	66*
LCS	60	63*
LCSD	65	76
Limits:	45-126	69-119

Analysis Name: 10b TPH by EPA 8015B (DRO)
Batch number: 141690022A

	Chlorobenzene	Orthoterphenyl
7497925	101	88
7497926	99	92
Blank	93	95
LCS	95	100
LCSD	89	90
Limits:	45-126	69-119

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 14167007

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7497920	81	85	90	95	91	97
7497921	80	87	85	87	86	89
Blank	71	82	82	83	81	90
OPR	76	76	82	85	83	88
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481665
Reported: 07/07/14 at 12:26 PM

Surrogate Quality Control

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7497920	106	84	104	91	91	105
7497921	89	71	89	77	68	80
Blank	97	69	91	82	71	86
OPR	88	73	94	77	74	88
Limits:	17-157	24-169	24-185	21-178	26-152	26-123

	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF
7497920	96	91	143	82	80
7497921	73	71	117	60	54
Blank	78	63	130	65	60
OPR	80	64	132	68	59
Limits:	28-136	29-147	28-143	26-138	17-157

Analysis Name: 17b Dioxin/Furan by EPA 1613B
Batch number: 14171001

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7497925	81	83	84	86	85	90
7497926	75	79	82	80	82	80
Blank	77	75	79	83	80	84
OPR	80	77	84	87	84	88
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7497925	92	80	89	82	79	83
7497926	77	73	81	75	74	79
Blank	84	75	87	76	74	84
OPR	87	72	74	68	77	80
Limits:	17-157	24-169	24-185	21-178	26-152	26-123

	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF
7497925	81	84	81	85	82
7497926	76	82	78	76	73
Blank	76	75	80	79	76
OPR	74	83	80	79	79
Limits:	28-136	29-147	28-143	26-138	17-157

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13013 1481665 7497920-26

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/12/2014
CarrierName: FedEx
AirbillNo: 770288260743

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140612-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
FDG2-SL-562-NBZ-SB-0.0-0.5	6/12/14 08:50	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X				X				X														sample is wet
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/14 09:25	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X							X				X														sample is wet
FDG2-SL-563-NBZ-SB-0.0-0.5	6/12/14 09:25	SO	None	1 - 4 oz glass	10 day													X																						
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/14 08:55	SO	None	2 - SS-Sleeve	10 day	X	X					X			X											X														
FDG2-SL-569-NBZ-SB-0.0-0.5	6/12/14 08:55	SO	None	1 - 4 oz glass	10 day													X																						
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/14 08:10	SO	None	2 - SS-Sleeve	10 day	X	X					X			X											X														
FDG2-SL-570-NBZ-SB-0.0-0.5	6/12/14 08:10	SO	None	1 - 4 oz glass	10 day													X																						
FDG2-SL-583-NBZ-SB-0.0-0.5	6/12/14 13:35	SO	None	1 - SS-Sleeve	10 day										X											X														

Special Instructions: For all EFH, silica gel cleanup required on half the extract. Analyze both extracts for EFH.

Sampler: Randy Roberts Sandy Do

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Stephanie Lupe	6/12/14	16:00									
									Bruce Hu	6/13/14	930

Final Data Gap Block 2 1 of 3

SSFL Phase 3 Chain of Custody

13013 1481665 7497920-26

CDM Smith

DateShipped: 6/12/2014
CarrierName: FedEx
AirbillNo: 770288260743

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140612-02
Cooler #: 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate. Nitrite. TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
EB1-061214	6/12/14 15:00	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	X		X																																	
EB1-061214	6/12/14 15:00	WQ	None	4 - 1 L Amber	10 day									X							X																				
EB1-061214	6/12/14 15:00	WQ	None	1 - 250 mL Poly	10 day														X																					
EB1-061214	6/12/14 15:00	WQ	HCl	2 - 1 L Amber	10 day																				X															
EB1-061214	6/12/14 15:00	WQ	HCl	3 - 40 mL Vial	10 day																				X															
EB2-061214	6/12/14 15:30	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	X		X																																
EB2-061214	6/12/14 15:30	WQ	None	1 - 250 mL Poly	10 day														X																					
EB2-061214	6/12/14 15:30	WQ	HCl	2 - 1 L Amber	10 day																				X															
EB2-061214	6/12/14 15:30	WQ	HCl	3 - 40 mL Vial	10 day																				X															

Special Instructions: For all EFH, silica gel cleanup required on half the extract. Analyze both extracts for EFH.

Sampler: Pam Hart

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
									Pam Hart	6.13.14	930

FD GBLOCK 2 2 of 3

SSFL Phase 3 Chain of Custody

13013 1481665 7497920-26

CDM Smith

DateShipped: 6/12/2014
CarrierName: FedEx
AirbillNo: 770288260743

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140612-03
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate. Nitrite. TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
EB1-061214	6/12/14 15:00	WQ	None	3 - 250 mL Amber	10 day							X			X							X																			
EB2-061214	6/12/14 15:30	WQ	None	3 - 250 mL Amber	10 day							X			X							X																			
EB2-061214	6/12/14 15:30	WQ	None	2 - 1 L Amber	10 day									X																										

Special Instructions:

Sampler: Pam Hartman

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Stephanie Myers	6/12/14	1600									
									Brad Hm	6-13-14	930

FDG Block 2 3 of 3

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Sample Administration Receipt Documentation Log

Doc Log ID: 17287

Group Number(s): 1481665

Client: CDM

SSFL

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	06/13/2014 9:30
Number of Packages:	2	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	3
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Brandy Barclay (2299) at 10:02 on 06/13/2014

Samples Chilled Details: SSFL

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT121	0.5	DT	Wet	Y	Bagged	N	N
2	DT121	1.7	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

July 07, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 06/14/2014
Group Number: 1481960
SDG: PH233
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB-061314 Water	7499516
FDG2-SL-582-NBZ-SB-0.0-0.5 Soil	7499517
FDG2-SL-582-NBZ-SB-3.0-3.5 Soil	7499518
FDG2-SL-584-NBZ-SB-0.0-0.5 Soil	7499519
FDG2-SL-585-NBZ-SB-0.0-0.5 Soil	7499520
FDG2-SL-586-NBZ-SB-0.0-0.5 Soil	7499521

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: TB-061314 Water
SSFL Phase 3

LL Sample # WW 7499516
LL Group # 1481960
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/13/2014 08:00

Submitted: 06/14/2014 09:20
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB613 SDG#: PH233-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14170B94A	06/20/2014 14:56	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14170B94A	06/20/2014 14:56	Laura M Krieger	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-582-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7499517
LL Group # 1481960
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/13/2014 07:50 by SD

Submitted: 06/14/2014 09:20
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FD582 SDG#: PH233-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.2	1
13099	PCB-1242	53469-21-9	18	U	18	4.2	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	18	U	18	4.5	1
13099	PCB-1260	11096-82-5	18	U	18	4.0	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	3.7	J	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	22		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	73		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	3.0	J	5.2	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	6.2	J	10	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	3.9		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141690028A	06/23/2014 16:33	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141690028A	06/19/2014 09:45	Katheryne V Sponheimer	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-582-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7499517
LL Group # 1481960
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/13/2014 07:50 by SD

Submitted: 06/14/2014 09:20
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FD582 SDG#: PH233-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141670004A	06/17/2014 23:26	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141670005A	06/19/2014 23:39	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141670005A	06/16/2014 15:15	Kelli M Barto	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141670004A	06/16/2014 15:15	Kelli M Barto	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14174162401A	06/23/2014 20:06	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-582-NBZ-SB-3.0-3.5 Soil
SSFL Phase 3

LL Sample # SW 7499518
LL Group # 1481960
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/13/2014 08:05 by SD

Submitted: 06/14/2014 09:20
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

F-582 SDG#: PH233-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	24.32
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.6	1
13099	PCB-1221	11104-28-2	18	U	18	5.5	1
13099	PCB-1232	11141-16-5	18	U	18	4.4	1
13099	PCB-1242	53469-21-9	18	U	18	4.4	1
13099	PCB-1248	12672-29-6	18	U	18	3.6	1
13099	PCB-1254	11097-69-1	18	U	18	4.8	1
13099	PCB-1260	11096-82-5	18	U	18	4.2	1
13099	PCB-1262	37324-23-5	18	U	18	3.6	1
13099	PCB-1268	11100-14-4	18	U	18	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C21-C30)	n.a.	8.1		5.5	2.2	1
12952	EFH (C30-C40)	n.a.	24		11	4.4	1
12952	EFH (C8-C11)	n.a.	5.5	U	5.5	2.2	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.5	U	5.5	2.2	1
13197	EFH C30-C40 w/ SiGel	n.a.	11	U	11	4.4	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.5	U	5.5	2.2	1

The reverse surrogate, capric acid, is present at <1%.
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	8.7		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-582-NBZ-SB-3.0-3.5 Soil
SSFL Phase 3

LL Sample # SW 7499518
LL Group # 1481960
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/13/2014 08:05 by SD

Submitted: 06/14/2014 09:20
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

F-582 SDG#: PH233-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14170A16A	06/19/2014 19:52	Laura M Krieger	24.32
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201416534814	06/14/2014 15:46	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201416534814	06/14/2014 15:47	Mitchell R Washel	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141690028A	06/23/2014 18:05	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141690028A	06/19/2014 09:45	Katheryne V Sponheimer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141670004A	06/17/2014 20:27	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141670005A	06/20/2014 00:00	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141670005A	06/16/2014 15:15	Kelli M Barto	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141670004A	06/16/2014 15:15	Kelli M Barto	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14174162401A	06/23/2014 20:06	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-584-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7499519
LL Group # 1481960
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/13/2014 09:50 by SD

Submitted: 06/14/2014 09:20
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FD584 SDG#: PH233-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.1	1
13099	PCB-1232	11141-16-5	17	U	17	4.1	1
13099	PCB-1242	53469-21-9	17	U	17	4.1	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	17	U	17	4.4	1
13099	PCB-1260	11096-82-5	17	U	17	3.9	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.0	U	5.0	2.0	1
12952	EFH (C15-C20)	n.a.	5.0	U	5.0	2.0	1
12952	EFH (C21-C30)	n.a.	22		5.0	2.0	1
12952	EFH (C30-C40)	n.a.	36		10	4.0	1
12952	EFH (C8-C11)	n.a.	5.0	U	5.0	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	6.8		5.0	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.0	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	0.83		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141690028A	06/23/2014 18:23	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141690028A	06/19/2014 09:45	Katheryne V Sponheimer	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-584-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7499519
LL Group # 1481960
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/13/2014 09:50 by SD

Submitted: 06/14/2014 09:20
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FD584 SDG#: PH233-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141670004A	06/17/2014 21:14	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141670005A	06/20/2014 00:21	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141670005A	06/16/2014 15:15	Kelli M Barto	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141670004A	06/16/2014 15:15	Kelli M Barto	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14174162401A	06/23/2014 20:06	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7499520
LL Group # 1481960
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/13/2014 09:25 by SD

Submitted: 06/14/2014 09:20
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FD585 SDG#: PH233-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.4	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.2	1
13099	PCB-1242	53469-21-9	17	U	17	4.2	1
13099	PCB-1248	12672-29-6	17	U	17	3.4	1
13099	PCB-1254	11097-69-1	17	U	17	4.5	1
13099	PCB-1260	11096-82-5	17	U	17	4.0	1
13099	PCB-1262	37324-23-5	17	U	17	3.4	1
13099	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	3.5	J	5.1	2.1	1
12952	EFH (C21-C30)	n.a.	18		5.1	2.1	1
12952	EFH (C30-C40)	n.a.	40		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	2.8		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141690028A	06/23/2014 18:42	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141690028A	06/19/2014 09:45	Katheryne V Sponheimer	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-585-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7499520
LL Group # 1481960
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/13/2014 09:25 by SD

Submitted: 06/14/2014 09:20
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FD585 SDG#: PH233-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141670004A	06/17/2014 23:48	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141670005A	06/20/2014 00:43	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141670005A	06/16/2014 15:15	Kelli M Barto	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141670004A	06/16/2014 15:15	Kelli M Barto	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14174162401A	06/23/2014 20:06	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-586-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7499521
LL Group # 1481960
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/13/2014 09:00 by SD

Submitted: 06/14/2014 09:20
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FD586 SDG#: PH233-06*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.2	1
13099	PCB-1242	53469-21-9	17	U	17	4.2	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	17	U	17	4.5	1
13099	PCB-1260	11096-82-5	17	U	17	4.0	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C21-C30)	n.a.	12		5.1	2.1	1
12952	EFH (C30-C40)	n.a.	30		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
	The reverse surrogate, capric acid, is present at <1%. The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	2.6		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141690028A	06/23/2014 19:01	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141690028A	06/19/2014 09:45	Katheryne V Sponheimer	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-586-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3

LL Sample # SW 7499521
LL Group # 1481960
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/13/2014 09:00 by SD

Submitted: 06/14/2014 09:20
Reported: 07/07/2014 12:26

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

FD586 SDG#: PH233-06*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141670004A	06/17/2014 22:43	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141670005A	06/20/2014 01:04	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141670005A	06/16/2014 15:15	Kelli M Barto	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141670004A	06/16/2014 15:15	Kelli M Barto	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14174162401A	06/23/2014 20:06	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481960
Reported: 07/07/14 at 12:26 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14170A16A	Sample number(s): 7499518									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	82		67-120		
Batch number: 14170B94A	Sample number(s): 7499516									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	94	93	80-133	1	30
Batch number: 141690028A	Sample number(s): 7499517-7499521									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	82	83	36-106	0	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	100		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	105		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141670004A	Sample number(s): 7499517-7499521									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	94		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	96		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	94		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	91		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	77		60-115		
Batch number: 141670005A	Sample number(s): 7499517-7499521									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	68*		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	71*		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	70*		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	72		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	52*		60-115		
Batch number: 14174162401A	Sample number(s): 7499517-7499521									
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481960
Reported: 07/07/14 at 12:26 PM

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14170A16A	Sample number(s): 7499518 UNSPK: P501188								
11a TPH by EPA 8015B GRO	75	77	69-123	1	30				
Batch number: 141690028A	Sample number(s): 7499517-7499521 UNSPK: P494369								
PCB-1016	96	78	41-135	22	50				
PCB-1260	102	83	40-134	22	50				
Batch number: 141670004A	Sample number(s): 7499517-7499521 UNSPK: P492863								
EFH (C12-C14)	146*	135*	49-123	8	20				
EFH (C15-C20)	118	107	49-123	7	20				
EFH (C21-C30)	137*	130*	49-123	2	20				
EFH (C30-C40)	163*	195*	49-123	6	20				
EFH (C8-C11)	91	95	49-123	5	20				
Batch number: 141670005A	Sample number(s): 7499517-7499521 UNSPK: P492863								
EFH C12-C14 w/ SiGel	100	81	49-123	21*	20				
EFH C15-C20 w/ SiGel	77	66	49-123	15	20				
EFH C21-C30 w/ SiGel	60	55	49-123	6	20				
EFH C30-C40 w/ SiGel	89	83	49-123	7	20				
EFH C8-C11 w/ SiGel	52	47*	49-123	11	20				
Batch number: 14174162401A	Sample number(s): 7499517-7499521 BKG: P501188								
14a Moisture Content by 160.3						2.7	2.6	2	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 14170A16A

	Trifluorotoluene-F
7499518	88
Blank	98
LCS	101
MS	91
MSD	89
Limits:	50-142

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14170B94A

	Trifluorotoluene-F
7499516	80
Blank	82
LCS	93
LCSD	91
Limits:	63-135

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1481960
Reported: 07/07/14 at 12:26 PM

Surrogate Quality Control

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141690028A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7499517	108	100
7499518	115	99
7499519	118	105
7499520	110	98
7499521	114	99
Blank	66	62
LCS	104	95
LCSD	99	91
MS	107	101
MSD	81	75
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141670004A

	Chlorobenzene	Orthoterphenyl
7499517	86	91
7499518	91	93
7499519	92	89
7499520	95	100
7499521	71	92
Blank	97	101
LCS	74	96
MS	76	97
MSD	74	95
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141670005A

	Chlorobenzene	Orthoterphenyl
7499517	68	77
7499518	54	65*
7499519	52	62*
7499520	49	60*
7499521	49	61*
Blank	57	66
LCS	57	68
MS	59	69
MSD	52	61*
Limits:	37-125	66-123

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

acct# 13013 Gp# 1481960 Sample# 1481960

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/13/2014
CarrierName: FedEx
AirbillNo: 770297913914

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140613-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
TB-061314	6/13/14 08:00	WQ	HCl	3 - 40 mL Vial	10 day																			X																	
FDG2-SL-582-NBZ-SB-0.0-0.5	6/13/14 07:50	SO	None	1 - SS-Sleeve	10 day										X										X																
FDG2-SL-582-NBZ-SB-3.0-3.5	6/13/14 08:05	SO	None	1 - SS-Sleeve	10 day										X										X																
FDG2-SL-582-NBZ-SB-3.0-3.5	6/13/14 08:05	SO	None	2 - Encore	0																			X																
FDG2-SL-584-NBZ-SB-0.0-0.5	6/13/14 09:50	SO	None	1 - SS-Sleeve	10 day										X										X																
FDG2-SL-585-NBZ-SB-0.0-0.5	6/13/14 09:25	SO	None	1 - SS-Sleeve	10 day										X										X																
FDG2-SL-586-NBZ-SB-0.0-0.5	6/13/14 09:00	SO	None	1 - SS-Sleeve	10 day										X										X																

For all EFH, silica gel cleanup required on half the extract. Analyze both extracts for EFH.

Special Instructions:

Sampler: Sandy Do

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Stacy Meyer	6/13/14	1400									
										6/14/14	920

Final Data Gap Block 2 1 of 1

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 17395

Group Number(s): 14 81960

Client: CDM

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	06/14/2014 9:20
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	3
Custody Seal Present:	Yes	Trip Blank Type:	HCl
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Wesley Miller (2308) at 09:50 on 06/14/2014

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT121	1.1	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

July 07, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 06/17/2014
Group Number: 1482333
SDG: PH234
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB-061614 Water	7501186
FDG2-SL-875-SA5A-SB-0.0-0.5 Soil	7501187
FDG2-SL-875-SA5A-SB-2.0-3.0 Soil	7501188
FDG2-SL-875-SA5A-SB-2.0-3.0 MS Soil	7501189
FDG2-SL-875-SA5A-SB-2.0-3.0 MSD Soil	7501190
FDG2-SL-875-SA5A-SB-2.0-3.0 DUP Soil	7501191
FDG2-SL-876-SA5A-SB-0.0-0.5 Soil	7501192
FDG2-SL-876-SA5A-SB-4.0-5.0 Soil	7501193
FDG2-SL-1175-SA5A-SB-2.0-3.0 Soil	7501194
FDG2-SL-877-SA5A-SB-0.0-0.5 Soil	7501195
FDG2-SL-877-SA5A-SB-3.0-4.0 Soil	7501196

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: TB-061614 Water
SSFL Phase 3 Subarea 5A

LL Sample # WW 7501186
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:00

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB616 SDG#: PH234-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	1	U	1	0.5	1
10335	Benzene	71-43-2	1	U	1	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	1	U	1	0.5	1
10335	Bromoform	75-25-2	4	U	4	0.5	1
10335	Bromomethane	74-83-9	1	U	1	0.5	1
10335	2-Butanone	78-93-3	10	U	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	1	U	1	0.5	1
10335	Chlorobenzene	108-90-7	1	U	1	0.5	1
10335	Chloroethane	75-00-3	1	U	1	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	1	U	1	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	1	U	1	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	1	U	1	0.5	1
10335	1,2-Dibromoethane	106-93-4	1	U	1	0.5	1
10335	Dibromomethane	74-95-3	1	U	1	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	1	U	1	0.5	1
10335	1,1-Dichloroethane	75-34-3	1	U	1	0.5	1
10335	1,2-Dichloroethane	107-06-2	1	U	1	0.5	1
10335	1,1-Dichloroethene	75-35-4	1	U	1	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	1	U	1	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	1	U	1	0.5	1
10335	1,2-Dichloropropane	78-87-5	1	U	1	0.5	1
10335	1,3-Dichloropropane	142-28-9	1	U	1	0.5	1
10335	2,2-Dichloropropane	594-20-7	1	U	1	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	1	U	1	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	1	U	1	0.5	1
10335	Ethyl t-butyl ether	637-92-3	1	U	1	0.5	1
10335	Ethylbenzene	100-41-4	1	U	1	0.5	1
10335	Freon 113	76-13-1	10	U	10	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: TB-061614 Water
SSFL Phase 3 Subarea 5A

LL Sample # WW 7501186
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:00

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB616 SDG#: PH234-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	1	U	1	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	1	U	1	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	1	U	1	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	3	U	3	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	1	U	1	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	1	U	1	0.5	1
10335	Tetrachloroethene	127-18-4	1	U	1	0.5	1
10335	Toluene	108-88-3	1	U	1	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	1	U	1	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	1	U	1	0.5	1
10335	Trichloroethene	79-01-6	1	U	1	0.5	1
10335	Trichlorofluoromethane	75-69-4	1	U	1	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	1	U	1	0.5	1
10335	m+p-Xylene	179601-23-1	1	U	1	0.5	1
10335	o-Xylene	95-47-6	1	U	1	0.5	1
GC/MS Volatiles	**SW-846 8260B SIM**		**ug/l**		**ug/l**	**ug/l**	
00527	1,4-Dioxane	123-91-1	2.0	U	2.0	0.5	1
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141701AA	06/19/2014 13:44	Sarah A Guill	1

*=This limit was used in the evaluation of the final result

Sample Description: TB-061614 Water
SSFL Phase 3 Subarea 5A

LL Sample # WW 7501186
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:00

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB616 SDG#: PH234-01TB

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00527	13b 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E141682AA	06/17/2014 22:30	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	E141682AA	06/17/2014 22:30	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Y141701AA	06/19/2014 13:44	Sarah A Guill	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14170B94A	06/20/2014 15:22	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14170B94A	06/20/2014 15:22	Laura M Krieger	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501187
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:20 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87500 SDG#: PH234-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.67	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	0.87	J	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	2.9		1.7	0.67	1
12969	Benzo(a)pyrene	50-32-8	2.9		1.7	0.67	1
12969	Benzo(b)fluoranthene	205-99-2	8.5		1.7	0.67	1
12969	Benzo(e)pyrene	192-97-2	4.0	J	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7		1.7	0.67	1
12969	Benzo(k)fluoranthene	207-08-9	6.6		1.7	0.67	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	9.0		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.67	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	15	J	18	6.1	1
12969	Fluoranthene	206-44-0	14		1.7	0.67	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.67	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.3	J	1.7	0.67	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.67	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.67	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.67	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.67	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	6.8		1.7	0.67	1
12969	Pyrene	129-00-0	11		1.7	0.67	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
chrysene

Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.1	1
13099	PCB-1232	11141-16-5	17	U	17	4.1	1
13099	PCB-1242	53469-21-9	17	U	17	4.1	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	9.7	J	17	4.4	1
13099	PCB-1260	11096-82-5	17	U	17	3.9	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1

For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.

GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501187
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:20 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87500 SDG#: PH234-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.0	U	5.0	2.0	1
12952	EFH (C15-C20)	n.a.	5.0	U	5.0	2.0	1
12952	EFH (C21-C30)	n.a.	16		5.0	2.0	1
12952	EFH (C30-C40)	n.a.	58		10	4.0	1
12952	EFH (C8-C11)	n.a.	5.0	U	5.0	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.8		5.0	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	17		10	4.0	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,600		39.2	7.06	1
06944	Antimony	7440-36-0	3.92	U	3.92	0.725	1
06935	Arsenic	7440-38-2	4.89		3.92	0.685	1
06946	Barium	7440-39-3	82.7		0.979	0.0323	1
06947	Beryllium	7440-41-7	0.455	J	0.979	0.0656	1
07914	Boron	7440-42-8	4.21	J	9.79	0.822	1
06949	Cadmium	7440-43-9	0.979	U	0.979	0.0744	1
01650	Calcium	7440-70-2	2,850		19.6	3.27	1
06951	Chromium	7440-47-3	18.4		2.94	0.157	1
06952	Cobalt	7440-48-4	4.22		0.979	0.0969	1
06953	Copper	7440-50-8	9.93		1.96	0.284	1
01654	Iron	7439-89-6	15,500		39.2	3.54	1
06955	Lead	7439-92-1	13.8		2.94	0.490	1
01656	Lithium	7439-93-2	14.2		3.9	0.33	1
01657	Magnesium	7439-95-4	3,230		9.79	1.64	1
06958	Manganese	7439-96-5	241		0.979	0.0813	1
06960	Molybdenum	7439-98-7	0.478	J	1.96	0.166	1
06961	Nickel	7440-02-0	11.3		1.96	0.127	1
10145	Phosphorus	7723-14-0	608		9.79	2.83	1
01662	Potassium	7440-09-7	2,730		97.9	8.17	1
01667	Sodium	7440-23-5	65.1	J	97.9	16.4	1
06969	Tin	7440-31-5	2.23	J	9.79	0.215	1
06970	Titanium	7440-32-6	763		0.979	0.166	1
06971	Vanadium	7440-62-2	30.5		0.979	0.127	1
06972	Zinc	7440-66-6	49.1		3.92	0.196	1
10146	Zirconium	7440-67-7	3.16	J	4.90	0.822	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.255	J	0.392	0.0979	2
06142	Silver	7440-22-4	0.0370	J	0.196	0.0255	2
06144	Strontium	7440-24-6	25.2		0.392	0.0666	2
06145	Thallium	7440-28-0	0.212		0.196	0.0294	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0234		0.0160	0.0096	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501187
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:20 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87500 SDG#: PH234-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
00394	15a pH by 9045D The pH was measured in water at 22.8 C.	n.a.	6.49	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	0.84	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501187
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:20 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87500 SDG#: PH234-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0601	JB	0.997	0.0593	1
11031	12378-PeCDD	40321-76-4	0.324	JB	4.99	0.0583	1
11031	123478-HxCDD	39227-28-6	0.464	JQ	4.99	0.0566	1
11031	123678-HxCDD	57653-85-7	1.57	JB	4.99	0.0612	1
11031	123789-HxCDD	19408-74-3	1.16	JB	4.99	0.0580	1
11031	1234678-HpCDD	35822-46-9	38.9	B	4.99	0.0834	1
11031	OCDD	3268-87-9	738	B	9.97	0.0644	1
11031	2378-TCDF	51207-31-9	0.138	JQ	0.997	0.0669	1
11031	12378-PeCDF	57117-41-6	0.398	JB	4.99	0.0364	1
11031	23478-PeCDF	57117-31-4	0.406	JB	4.99	0.0350	1
11031	123478-HxCDF	70648-26-9	0.424	JB	4.99	0.0475	1
11031	123678-HxCDF	57117-44-9	0.298	JBQ	4.99	0.0430	1
11031	123789-HxCDF	72918-21-9	0.331	J	4.99	0.0481	1
11031	234678-HxCDF	60851-34-5	0.373	JBQ	4.99	0.0443	1
11031	1234678-HpCDF	67562-39-4	4.51	JB	4.99	0.0267	1
11031	1234789-HpCDF	55673-89-7	0.386	JB	4.99	0.0369	1
11031	OCDF	39001-02-0	14.6	B	9.97	0.0332	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	1.53				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	72	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	74	23 - 140
13C12-OCDD	71	17 - 157
13C12-2378-TCDF	72	24 - 169
13C12-12378-PeCDF	81	24 - 185
13C12-23478-PeCDF	78	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	81	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	83	29 - 147
13C12-1234678-HpCDF	91	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	66	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501187
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:20 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87500 SDG#: PH234-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501187
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:20 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87500 SDG#: PH234-02

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14169SLA026	06/25/2014 07:14	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14169SLA026	06/19/2014 10:30	Anna E Stager	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141750017A	06/25/2014 15:44	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	2	141750017A	06/25/2014 08:15	Katheryne V Sponheimer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141770027A	06/27/2014 22:16	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141770026A	06/30/2014 21:45	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	2	141770026A	06/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	2	141770027A	06/27/2014 11:00	William H Saadeh	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14170002	06/21/2014 03:02	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14170002	06/19/2014 11:00	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141680637002	06/19/2014 17:34	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501187
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:20 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87500 SDG#: PH234-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	141680637002B	06/19/2014 07:29	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141680637002A	06/19/2014 07:29	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141680637002A	06/19/2014 07:29	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141680637002A	06/19/2014 07:29	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141680638002	06/19/2014 10:54	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141680637002	06/18/2014 12:24	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141680638002	06/18/2014 14:47	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14168039402A	06/17/2014 21:10	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14174162401A	06/23/2014 20:06	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501188
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	21	U	21	7	1
10237	Acrolein	107-02-8	100	U	100	21	1
10237	Acrylonitrile	107-13-1	21	U	21	4	1
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	1
10237	Benzene	71-43-2	5	U	5	0.5	1
10237	Bromobenzene	108-86-1	5	U	5	1	1
10237	Bromochloromethane	74-97-5	5	U	5	1	1
10237	Bromodichloromethane	75-27-4	5	U	5	1	1
10237	Bromoform	75-25-2	5	U	5	1	1
10237	Bromomethane	74-83-9	5	U	5	2	1
10237	2-Butanone	78-93-3	10	U	10	4	1
10237	t-Butyl alcohol	75-65-0	51	U	51	21	1
10237	n-Butylbenzene	104-51-8	5	U	5	1	1
10237	sec-Butylbenzene	135-98-8	5	U	5	1	1
10237	tert-Butylbenzene	98-06-6	5	U	5	1	1
10237	Carbon Disulfide	75-15-0	5	U	5	1	1
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	1
10237	Chlorobenzene	108-90-7	5	U	5	1	1
10237	Chloroethane	75-00-3	5	U	5	2	1
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
10237	Chloroform	67-66-3	5	U	5	1	1
10237	1-Chlorohexane	544-10-5	5	U	5	1	1
10237	Chloromethane	74-87-3	5	U	5	2	1
10237	2-Chlorotoluene	95-49-8	5	U	5	1	1
10237	4-Chlorotoluene	106-43-4	5	U	5	1	1
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10237	Dibromochloromethane	124-48-1	5	U	5	1	1
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	1
10237	Dibromomethane	74-95-3	5	U	5	1	1
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	1
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	1
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	1
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	1
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	1
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	1
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	1
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	1
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	1
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	1
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	1
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	1
10237	Ethylbenzene	100-41-4	5	U	5	1	1
10237	Freon 113	76-13-1	5	U	5	2	1
10237	Freon 133a	75-88-7	5	U	5	2	1
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10237	2-Hexanone	591-78-6	10	U	10	3	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501188
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	1
10237	Isopropylbenzene	98-82-8	5	U	5	1	1
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10237	Methyl Iodide	74-88-4	5	U	5	3	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10237	Methylene Chloride	75-09-2	5	U	5	2	1
10237	n-Propylbenzene	103-65-1	5	U	5	1	1
10237	Styrene	100-42-5	5	U	5	1	1
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	1
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	1
10237	Tetrachloroethene	127-18-4	5	U	5	1	1
10237	Toluene	108-88-3	5	U	5	1	1
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	1
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	1
10237	Trichloroethene	79-01-6	5	U	5	1	1
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	1
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10237	Vinyl Acetate	108-05-4	10	U	10	2	1
10237	Vinyl Chloride	75-01-4	5	U	5	1	1
10237	m+p-Xylene	179601-23-1	5	U	5	1	1
10237	o-Xylene	95-47-6	5	U	5	1	1
GC/MS Volatiles	**SW-846 8260B SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
10326	1,4-Dioxane	123-91-1	16	U	16	5.5	26.71
The surrogate recovery for toluene-d8 is outside of QC limits for the GC/MS volatile fraction. The surrogate was mis-spiked in the sample vial which resulted in a saturated peak. The analysis was not repeated.							
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	0.84	J	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	2.0		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	1.5	J	1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	2.4		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.1	1
12969	Fluoranthene	206-44-0	1.4	J	1.7	0.68	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501188
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.68	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	0.70	J	1.7	0.68	1
12969	Pyrene	129-00-0	1.2	J	1.7	0.68	1
The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: chrysene							
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	25.56
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.4	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.2	1
13099	PCB-1242	53469-21-9	17	U	17	4.2	1
13099	PCB-1248	12672-29-6	17	U	17	3.4	1
13099	PCB-1254	11097-69-1	17	U	17	4.5	1
13099	PCB-1260	11096-82-5	17	U	17	4.0	1
13099	PCB-1262	37324-23-5	17	U	17	3.4	1
13099	PCB-1268	11100-14-4	17	U	17	3.4	1
For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.							
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	10	U	10	4.1	2
12952	EFH (C15-C20)	n.a.	10	U	10	4.1	2
12952	EFH (C21-C30)	n.a.	33		10	4.1	2
12952	EFH (C30-C40)	n.a.	85		20	8.2	2
12952	EFH (C8-C11)	n.a.	10	U	10	4.1	2
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	26		5.1	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	67		10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
Due to the matrix of the sample extract, capric acid recovery can not be determined.							

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501188
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,500		40.3	7.26	1
06944	Antimony	7440-36-0	4.03	U	4.03	0.746	1
06935	Arsenic	7440-38-2	5.84		4.03	0.705	1
06946	Barium	7440-39-3	107		1.01	0.0333	1
06947	Beryllium	7440-41-7	0.581	J	1.01	0.0675	1
07914	Boron	7440-42-8	4.43	J	10.1	0.846	1
06949	Cadmium	7440-43-9	1.01	U	1.01	0.0766	1
01650	Calcium	7440-70-2	2,270		20.2	3.37	1
06951	Chromium	7440-47-3	19.5		3.02	0.161	1
06952	Cobalt	7440-48-4	4.91		1.01	0.0998	1
06953	Copper	7440-50-8	11.9		2.02	0.292	1
01654	Iron	7439-89-6	19,400		40.3	3.65	1
06955	Lead	7439-92-1	10.7		3.02	0.504	1
01656	Lithium	7439-93-2	20.7		4.0	0.34	1
01657	Magnesium	7439-95-4	4,140		10.1	1.68	1
06958	Manganese	7439-96-5	321		1.01	0.0836	1
06960	Molybdenum	7439-98-7	0.415	J	2.02	0.171	1
06961	Nickel	7440-02-0	13.1		2.02	0.131	1
10145	Phosphorus	7723-14-0	436		10.1	2.91	1
01662	Potassium	7440-09-7	3,650		101	8.40	1
01667	Sodium	7440-23-5	78.1	J	101	16.8	1
06969	Tin	7440-31-5	2.61	J	10.1	0.222	1
06970	Titanium	7440-32-6	1,070		1.01	0.171	1
06971	Vanadium	7440-62-2	36.0		1.01	0.131	1
06972	Zinc	7440-66-6	58.7		4.03	0.202	1
10146	Zirconium	7440-67-7	3.03	J	5.04	0.846	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.272	J	0.403	0.101	2
06142	Silver	7440-22-4	0.0425	J	0.202	0.0262	2
06144	Strontium	7440-24-6	22.6		0.403	0.0685	2
06145	Thallium	7440-28-0	0.274		0.202	0.0302	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0206		0.0162	0.0097	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 23 C.	n.a.	6.11		0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	2.7		0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501188
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.00	U	1.00	0.0662	1
11031	12378-PeCDD	40321-76-4	0.140	JBQ	5.01	0.0590	1
11031	123478-HxCDD	39227-28-6	0.225	JQ	5.01	0.0598	1
11031	123678-HxCDD	57653-85-7	1.31	JB	5.01	0.0609	1
11031	123789-HxCDD	19408-74-3	1.19	JB	5.01	0.0570	1
11031	1234678-HpCDD	35822-46-9	35.5	B	5.01	0.112	1
11031	OCDD	3268-87-9	980	B	10.0	0.0783	1
11031	2378-TCDF	51207-31-9	0.102	J	1.00	0.0812	1
11031	12378-PeCDF	57117-41-6	0.251	JB	5.01	0.0336	1
11031	23478-PeCDF	57117-31-4	0.162	JBQ	5.01	0.0317	1
11031	123478-HxCDF	70648-26-9	0.252	JB	5.01	0.0456	1
11031	123678-HxCDF	57117-44-9	0.219	JBQ	5.01	0.0413	1
11031	123789-HxCDF	72918-21-9	0.406	JQ	5.01	0.0490	1
11031	234678-HxCDF	60851-34-5	0.304	JBQ	5.01	0.0425	1
11031	1234678-HpCDF	67562-39-4	3.21	JB	5.01	0.0232	1
11031	1234789-HpCDF	55673-89-7	0.114	JB	5.01	0.0339	1
11031	OCDF	39001-02-0	10.0	JB	10.0	0.0347	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.978				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	82	23 - 140
13C12-OCDD	79	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	86	24 - 185
13C12-23478-PeCDF	82	21 - 178
13C12-123478-HxCDF	82	26 - 152
13C12-123678-HxCDF	91	26 - 123
13C12-234678-HxCDF	86	28 - 136
13C12-123789-HxCDF	84	29 - 147
13C12-1234678-HpCDF	99	28 - 143
13C12-1234789-HpCDF	75	26 - 138
13C12-OCDF	71	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501188
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501188
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03BKG

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141761AA	06/25/2014 16:01	Angela D Sneeringer	1
10326	13a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E141761AA	06/25/2014 15:15	Jason M Long	26.71
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201416834829	06/17/2014 15:14	Larry E Bevins	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201416834829	06/17/2014 15:15	Larry E Bevins	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	3	201416834829	06/17/2014 15:14	Larry E Bevins	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	4	201416834829	06/17/2014 15:15	Larry E Bevins	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201416834829	06/17/2014 15:04	Larry E Bevins	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	2	201416834829	06/17/2014 15:05	Larry E Bevins	n.a.
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14169SLA026	06/24/2014 04:26	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14169SLA026	06/19/2014 10:30	Anna E Stager	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14170A16A	06/19/2014 22:23	Laura M Krieger	25.56
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201416834829	06/17/2014 15:00	Larry E Bevins	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201416834829	06/17/2014 15:00	Larry E Bevins	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141720009A	06/23/2014 21:10	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141720009A	06/23/2014 05:30	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141700025A	06/23/2014 23:54	Heather E Williams	2
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141770026A	06/30/2014 23:10	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	2	141770026A	06/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141700025A	06/20/2014 09:30	Katheryne V Sponheimer	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14170002	06/21/2014 03:59	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14170002	06/19/2014 11:00	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501188
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06951	Chromium	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141680637002	06/19/2014 16:26	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141680637002B	06/19/2014 06:50	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141680637002A	06/19/2014 06:50	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141680637002A	06/19/2014 06:50	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141680637002A	06/19/2014 06:50	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141680638002	06/19/2014 10:56	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141680637002	06/18/2014 12:24	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141680638002	06/18/2014 14:47	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14168039402A	06/17/2014 21:10	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14174162401A	06/23/2014 20:06	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 MS Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501189
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	150		20	7	0.99
10237	Acrolein	107-02-8	77	J	100	20	0.99
10237	Acrylonitrile	107-13-1	76		20	4	0.99
10237	t-Amyl methyl ether	994-05-8	20		5	1	0.99
10237	Benzene	71-43-2	21		5	0.5	0.99
10237	Bromobenzene	108-86-1	16		5	1	0.99
10237	Bromochloromethane	74-97-5	20		5	1	0.99
10237	Bromodichloromethane	75-27-4	18		5	1	0.99
10237	Bromoform	75-25-2	14		5	1	0.99
10237	Bromomethane	74-83-9	15		5	2	0.99
10237	2-Butanone	78-93-3	130		10	4	0.99
10237	t-Butyl alcohol	75-65-0	210		51	20	0.99
10237	n-Butylbenzene	104-51-8	12		5	1	0.99
10237	sec-Butylbenzene	135-98-8	15		5	1	0.99
10237	tert-Butylbenzene	98-06-6	17		5	1	0.99
10237	Carbon Disulfide	75-15-0	19		5	1	0.99
10237	Carbon Tetrachloride	56-23-5	20		5	1	0.99
10237	Chlorobenzene	108-90-7	18		5	1	0.99
10237	Chloroethane	75-00-3	14		5	2	0.99
10237	2-Chloroethyl Vinyl Ether	110-75-8	17		10	2	0.99
10237	Chloroform	67-66-3	22		5	1	0.99
10237	1-Chlorohexane	544-10-5	17		5	1	0.99
10237	Chloromethane	74-87-3	22		5	2	0.99
10237	2-Chlorotoluene	95-49-8	16		5	1	0.99
10237	4-Chlorotoluene	106-43-4	15		5	1	0.99
10237	Chlorotrifluoroethene	79-38-9	22		5	2	0.99
10237	1,2-Dibromo-3-chloropropane	96-12-8	14		5	2	0.99
10237	Dibromochloromethane	124-48-1	16		5	1	0.99
10237	1,2-Dibromoethane	106-93-4	20		5	1	0.99
10237	Dibromomethane	74-95-3	20		5	1	0.99
10237	1,2-Dichlorobenzene	95-50-1	13		5	1	0.99
10237	1,3-Dichlorobenzene	541-73-1	13		5	1	0.99
10237	1,4-Dichlorobenzene	106-46-7	13		5	1	0.99
10237	Dichlorodifluoromethane	75-71-8	22		5	2	0.99
10237	1,1-Dichloroethane	75-34-3	23		5	1	0.99
10237	1,2-Dichloroethane	107-06-2	21		5	1	0.99
10237	1,1-Dichloroethene	75-35-4	24		5	1	0.99
10237	cis-1,2-Dichloroethene	156-59-2	22		5	1	0.99
10237	trans-1,2-Dichloroethene	156-60-5	23		5	1	0.99
10237	1,2-Dichloropropane	78-87-5	21		5	1	0.99
10237	1,3-Dichloropropane	142-28-9	20		5	1	0.99
10237	2,2-Dichloropropane	594-20-7	21		5	1	0.99
10237	1,1-Dichloropropene	563-58-6	23		5	1	0.99
10237	cis-1,3-Dichloropropene	10061-01-5	19		5	1	0.99
10237	trans-1,3-Dichloropropene	10061-02-6	18		5	1	0.99
10237	Ethyl t-butyl ether	637-92-3	21		5	1	0.99
10237	Ethylbenzene	100-41-4	19		5	1	0.99
10237	Freon 113	76-13-1	22		5	2	0.99
10237	Freon 133a	75-88-7	25		5	2	0.99
10237	Hexachlorobutadiene	87-68-3	9		5	2	0.99
10237	2-Hexanone	591-78-6	93		10	3	0.99

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 MS Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501189
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/kg	ug/kg	ug/kg	
10237	di-Isopropyl ether	108-20-3	23	5	1	0.99
10237	Isopropylbenzene	98-82-8	17	5	1	0.99
10237	p-Isopropyltoluene	99-87-6	13	5	1	0.99
10237	Methyl Iodide	74-88-4	22	5	3	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	21	5	0.5	0.99
10237	4-Methyl-2-pentanone	108-10-1	96	10	3	0.99
10237	Methylene Chloride	75-09-2	22	5	2	0.99
10237	n-Propylbenzene	103-65-1	16	5	1	0.99
10237	Styrene	100-42-5	16	5	1	0.99
10237	1,1,1,2-Tetrachloroethane	630-20-6	18	5	1	0.99
10237	1,1,2,2-Tetrachloroethane	79-34-5	18	5	1	0.99
10237	Tetrachloroethene	127-18-4	19	5	1	0.99
10237	Toluene	108-88-3	21	5	1	0.99
10237	1,2,3-Trichlorobenzene	87-61-6	7	5	1	0.99
10237	1,2,4-Trichlorobenzene	120-82-1	8	5	1	0.99
10237	1,1,1-Trichloroethane	71-55-6	19	5	1	0.99
10237	1,1,2-Trichloroethane	79-00-5	21	5	1	0.99
10237	Trichloroethene	79-01-6	21	5	1	0.99
10237	Trichlorofluoromethane	75-69-4	22	5	2	0.99
10237	1,2,3-Trichloropropane	96-18-4	20	5	1	0.99
10237	1,2,4-Trimethylbenzene	95-63-6	15	5	1	0.99
10237	1,3,5-Trimethylbenzene	108-67-8	16	5	1	0.99
10237	Vinyl Acetate	108-05-4	11	10	2	0.99
10237	Vinyl Chloride	75-01-4	23	5	1	0.99
10237	m+p-Xylene	179601-23-1	36	5	1	0.99
10237	o-Xylene	95-47-6	18	5	1	0.99
GC/MS Volatiles	**SW-846 8260B SIM**		ug/kg	ug/kg	ug/kg	
10326	1,4-Dioxane	123-91-1	110	15	4.9	23.95

The surrogate recovery for toluene-d8 is outside of QC limits for the GC/MS volatile fraction. The surrogate was mis-spiked in the sample vial which resulted in a saturated peak. The analysis was not repeated.

GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/kg	ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	30	1.7	0.68	1
12969	Acenaphthylene	208-96-8	31	1.7	0.34	1
12969	Anthracene	120-12-7	31	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	33	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	30	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	40	1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	30	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	16	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	34	1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	32	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	31	18	6.1	1
12969	Chrysene	218-01-9	34	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	19	1.7	0.68	1
12969	Diethylphthalate	84-66-2	30	18	6.1	1
12969	Dimethylphthalate	131-11-3	30	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	32	18	6.1	1
12969	Fluoranthene	206-44-0	36	1.7	0.68	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 MS Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501189
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Fluorene	86-73-7	31		1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	18		1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	31		1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	31		1.7	0.68	1
12969	Naphthalene	91-20-3	30		1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	29		1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	43		18	6.1	1
12969	Phenanthrene	85-01-8	32		1.7	0.68	1
12969	Pyrene	129-00-0	31		1.7	0.68	1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: chrysene						
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	8.6		1.0	0.2	25.25
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	170		17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.2	1
13099	PCB-1242	53469-21-9	17	U	17	4.2	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	17	U	17	4.5	1
13099	PCB-1260	11096-82-5	170		17	4.0	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
	For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.5		5.1	2.0	1
12952	EFH (C15-C20)	n.a.	9.8		5.1	2.0	1
12952	EFH (C21-C30)	n.a.	24		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	36		10	4.1	1
12952	EFH (C8-C11)	n.a.	4.5	J	5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	4.1	J	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.9		5.1	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	15		5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	26		10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	2.9	J	5.1	2.0	1
	Due to the matrix of the sample extract, capric acid recovery can not be determined.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 MS Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501189
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	17,600	41.1	7.41	1
06944	Antimony	7440-36-0	24.1	4.11	0.761	1
06935	Arsenic	7440-38-2	20.9	4.11	0.719	1
06946	Barium	7440-39-3	301	1.03	0.0339	1
06947	Beryllium	7440-41-7	5.83	1.03	0.0689	1
07914	Boron	7440-42-8	206	10.3	0.863	1
06949	Cadmium	7440-43-9	4.80	1.03	0.0781	1
01650	Calcium	7440-70-2	2,880	20.6	3.43	1
06951	Chromium	7440-47-3	42.6	3.08	0.164	1
06952	Cobalt	7440-48-4	54.0	1.03	0.102	1
06953	Copper	7440-50-8	38.2	2.06	0.298	1
01654	Iron	7439-89-6	18,900	41.1	3.72	1
06955	Lead	7439-92-1	31.0	3.08	0.514	1
01656	Lithium	7439-93-2	127	4.1	0.35	1
01657	Magnesium	7439-95-4	4,340	10.3	1.72	1
06958	Manganese	7439-96-5	359	1.03	0.0853	1
06960	Molybdenum	7439-98-7	196	2.06	0.175	1
06961	Nickel	7440-02-0	63.0	2.06	0.134	1
10145	Phosphorus	7723-14-0	531	10.3	2.97	1
01662	Potassium	7440-09-7	4,930	103	8.57	1
01667	Sodium	7440-23-5	1,140	103	17.2	1
06969	Tin	7440-31-5	369	10.3	0.226	1
06970	Titanium	7440-32-6	1,320	1.03	0.175	1
06971	Vanadium	7440-62-2	88.3	1.03	0.134	1
06972	Zinc	7440-66-6	108	4.11	0.206	1
10146	Zirconium	7440-67-7	103	5.14	0.863	1
	SW-846 6020A		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.65	0.411	0.103	2
06142	Silver	7440-22-4	13.1	0.206	0.0267	2
06144	Strontium	7440-24-6	34.8	0.411	0.0699	2
06145	Thallium	7440-28-0	0.786	0.206	0.0308	2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.167	0.0164	0.0098	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	2.7	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 MS Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501189
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	19.6	B	0.994	0.0801	1
11031	12378-PeCDD	40321-76-4	102	B	4.97	0.0730	1
11031	123478-HxCDD	39227-28-6	101		4.97	0.0876	1
11031	123678-HxCDD	57653-85-7	101	B	4.97	0.0962	1
11031	123789-HxCDD	19408-74-3	101	B	4.97	0.0899	1
11031	1234678-HpCDD	35822-46-9	146	B	4.97	0.125	1
11031	OCDD	3268-87-9	1,440	B	9.94	0.0812	1
11031	2378-TCDF	51207-31-9	20.4		0.994	0.0945	1
11031	12378-PeCDF	57117-41-6	101	B	4.97	0.0548	1
11031	23478-PeCDF	57117-31-4	101	B	4.97	0.0508	1
11031	123478-HxCDF	70648-26-9	100	B	4.97	0.0814	1
11031	123678-HxCDF	57117-44-9	98.1	B	4.97	0.0730	1
11031	123789-HxCDF	72918-21-9	100		4.97	0.0877	1
11031	234678-HxCDF	60851-34-5	101	B	4.97	0.0756	1
11031	1234678-HpCDF	67562-39-4	102	B	4.97	0.0646	1
11031	1234789-HpCDF	55673-89-7	97.4	B	4.97	0.0787	1
11031	OCDF	39001-02-0	209	B	9.94	0.0555	1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	80	25 - 164
13C12-12378-PeCDD	82	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	85	17 - 157
13C12-2378-TCDF	86	24 - 169
13C12-12378-PeCDF	90	24 - 185
13C12-23478-PeCDF	89	21 - 178
13C12-123478-HxCDF	87	26 - 152
13C12-123678-HxCDF	95	26 - 123
13C12-234678-HxCDF	90	28 - 136
13C12-123789-HxCDF	92	29 - 147
13C12-1234678-HpCDF	94	28 - 143
13C12-1234789-HpCDF	85	26 - 138
13C12-OCDF	82	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 MS Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501189
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
S	*Saturation of detection signal*					

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 MS Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501189
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03MS

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141761AA	06/25/2014 16:24	Angela D Sneeringer	0.99
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141761AA	06/25/2014 17:08	Angela D Sneeringer	0.99
10326	13a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E141761AA	06/25/2014 15:36	Jason M Long	23.95
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201416834829	06/17/2014 15:14	Larry E Bevins	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201416834829	06/17/2014 15:14	Larry E Bevins	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	3	201416834829	06/17/2014 15:14	Larry E Bevins	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	4	201416834829	06/17/2014 15:15	Larry E Bevins	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201416834829	06/17/2014 15:02	Larry E Bevins	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	2	201416834829	06/17/2014 15:03	Larry E Bevins	n.a.
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14169SLA026	06/24/2014 05:00	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14169SLA026	06/19/2014 10:30	Anna E Stager	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14170A16A	06/19/2014 23:01	Laura M Krieger	25.25
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201416834829	06/17/2014 15:01	Larry E Bevins	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201416834829	06/17/2014 15:01	Larry E Bevins	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141720009A	06/23/2014 21:28	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141720009A	06/23/2014 05:30	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141700025A	06/20/2014 21:30	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141770026A	06/30/2014 22:06	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	2	141770026A	06/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141700025A	06/20/2014 09:30	Katheryne V Sponheimer	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14170002	06/21/2014 04:55	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14170002	06/19/2014 11:00	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 MS Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501189
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06949	Cadmium	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141680637002	06/19/2014 16:38	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141680637002B	06/19/2014 06:57	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141680637002A	06/19/2014 06:57	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141680637002A	06/19/2014 06:57	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141680637002A	06/19/2014 06:57	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141680638002	06/19/2014 11:02	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141680637002	06/18/2014 12:24	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141680638002	06/18/2014 14:47	James L Mertz	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14174162401A	06/23/2014 20:06	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 MSD Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501190
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	160		20	7	1
10237	Acrolein	107-02-8	82	J	100	20	1
10237	Acrylonitrile	107-13-1	90		20	4	1
10237	t-Amyl methyl ether	994-05-8	22		5	1	1
10237	Benzene	71-43-2	24		5	0.5	1
10237	Bromobenzene	108-86-1	22		5	1	1
10237	Bromochloromethane	74-97-5	23		5	1	1
10237	Bromodichloromethane	75-27-4	21		5	1	1
10237	Bromoform	75-25-2	17		5	1	1
10237	Bromomethane	74-83-9	16		5	2	1
10237	2-Butanone	78-93-3	140		10	4	1
10237	t-Butyl alcohol	75-65-0	250		51	20	1
10237	n-Butylbenzene	104-51-8	21		5	1	1
10237	sec-Butylbenzene	135-98-8	24		5	1	1
10237	tert-Butylbenzene	98-06-6	25		5	1	1
10237	Carbon Disulfide	75-15-0	20		5	1	1
10237	Carbon Tetrachloride	56-23-5	23		5	1	1
10237	Chlorobenzene	108-90-7	23		5	1	1
10237	Chloroethane	75-00-3	15		5	2	1
10237	2-Chloroethyl Vinyl Ether	110-75-8	18		10	2	1
10237	Chloroform	67-66-3	24		5	1	1
10237	1-Chlorohexane	544-10-5	24		5	1	1
10237	Chloromethane	74-87-3	23		5	2	1
10237	2-Chlorotoluene	95-49-8	23		5	1	1
10237	4-Chlorotoluene	106-43-4	22		5	1	1
10237	Chlorotrifluoroethene	79-38-9	21		5	2	1.01
10237	1,2-Dibromo-3-chloropropane	96-12-8	17		5	2	1
10237	Dibromochloromethane	124-48-1	20		5	1	1
10237	1,2-Dibromoethane	106-93-4	23		5	1	1
10237	Dibromomethane	74-95-3	22		5	1	1
10237	1,2-Dichlorobenzene	95-50-1	19		5	1	1
10237	1,3-Dichlorobenzene	541-73-1	19		5	1	1
10237	1,4-Dichlorobenzene	106-46-7	19		5	1	1
10237	Dichlorodifluoromethane	75-71-8	24		5	2	1
10237	1,1-Dichloroethane	75-34-3	25		5	1	1
10237	1,2-Dichloroethane	107-06-2	24		5	1	1
10237	1,1-Dichloroethene	75-35-4	25		5	1	1
10237	cis-1,2-Dichloroethene	156-59-2	25		5	1	1
10237	trans-1,2-Dichloroethene	156-60-5	26		5	1	1
10237	1,2-Dichloropropane	78-87-5	24		5	1	1
10237	1,3-Dichloropropane	142-28-9	24		5	1	1
10237	2,2-Dichloropropane	594-20-7	24		5	1	1
10237	1,1-Dichloropropene	563-58-6	26		5	1	1
10237	cis-1,3-Dichloropropene	10061-01-5	21		5	1	1
10237	trans-1,3-Dichloropropene	10061-02-6	22		5	1	1
10237	Ethyl t-butyl ether	637-92-3	23		5	1	1
10237	Ethylbenzene	100-41-4	24		5	1	1
10237	Freon 113	76-13-1	24		5	2	1
10237	Freon 133a	75-88-7	26		5	2	1.01
10237	Hexachlorobutadiene	87-68-3	16		5	2	1
10237	2-Hexanone	591-78-6	100		10	3	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 MSD Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501190
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**	**ug/kg**	**ug/kg**	
10237	di-Isopropyl ether	108-20-3	25	5	1	1
10237	Isopropylbenzene	98-82-8	25	5	1	1
10237	p-Isopropyltoluene	99-87-6	22	5	1	1
10237	Methyl Iodide	74-88-4	24	5	3	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	23	5	0.5	1
10237	4-Methyl-2-pentanone	108-10-1	100	10	3	1
10237	Methylene Chloride	75-09-2	25	5	2	1
10237	n-Propylbenzene	103-65-1	25	5	1	1
10237	Styrene	100-42-5	22	5	1	1
10237	1,1,1,2-Tetrachloroethane	630-20-6	22	5	1	1
10237	1,1,2,2-Tetrachloroethane	79-34-5	22	5	1	1
10237	Tetrachloroethene	127-18-4	24	5	1	1
10237	Toluene	108-88-3	25	5	1	1
10237	1,2,3-Trichlorobenzene	87-61-6	11	5	1	1
10237	1,2,4-Trichlorobenzene	120-82-1	12	5	1	1
10237	1,1,1-Trichloroethane	71-55-6	21	5	1	1
10237	1,1,2-Trichloroethane	79-00-5	24	5	1	1
10237	Trichloroethene	79-01-6	24	5	1	1
10237	Trichlorofluoromethane	75-69-4	23	5	2	1
10237	1,2,3-Trichloropropane	96-18-4	23	5	1	1
10237	1,2,4-Trimethylbenzene	95-63-6	23	5	1	1
10237	1,3,5-Trimethylbenzene	108-67-8	24	5	1	1
10237	Vinyl Acetate	108-05-4	14	10	2	1.01
10237	Vinyl Chloride	75-01-4	24	5	1	1
10237	m+p-Xylene	179601-23-1	48	5	1	1
10237	o-Xylene	95-47-6	24	5	1	1
GC/MS Volatiles	**SW-846 8260B SIM**		**ug/kg**	**ug/kg**	**ug/kg**	
10326	1,4-Dioxane	123-91-1	120	15	5.1	24.85
The surrogate recovery for toluene-d8 is outside of QC limits for the GC/MS volatile fraction. The surrogate was mis-spiked in the sample vial which resulted in a saturated peak. The analysis was not repeated.						
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**	**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	31	1.7	0.69	1
12969	Acenaphthylene	208-96-8	31	1.7	0.34	1
12969	Anthracene	120-12-7	32	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	35	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	31	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	43	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	31	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	15	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	35	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	31	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	31	19	6.2	1
12969	Chrysene	218-01-9	38	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	18	1.7	0.69	1
12969	Diethylphthalate	84-66-2	31	19	6.2	1
12969	Dimethylphthalate	131-11-3	30	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	140	19	6.2	1
12969	Fluoranthene	206-44-0	45	1.7	0.69	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 MSD Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501190
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Fluorene	86-73-7	32		1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	17		1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	31		1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	32		1.7	0.69	1
12969	Naphthalene	91-20-3	31		1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	31		1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	45		19	6.2	1
12969	Phenanthrene	85-01-8	37		1.7	0.69	1
12969	Pyrene	129-00-0	39		1.7	0.69	1
The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: chrysene							
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	8.7		1.0	0.2	25.05
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	180		17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.2	1
13099	PCB-1242	53469-21-9	17	U	17	4.2	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	17	U	17	4.5	1
13099	PCB-1260	11096-82-5	190		17	4.0	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.							
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	6.4		5.1	2.0	1
12952	EFH (C15-C20)	n.a.	10		5.1	2.0	1
12952	EFH (C21-C30)	n.a.	27		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	45		10	4.1	1
12952	EFH (C8-C11)	n.a.	4.6	J	5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	4.5	J	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	6.2		5.1	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	18		5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	33		10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	3.2	J	5.1	2.0	1
Due to the matrix of the sample extract, capric acid recovery can not be determined.							

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 MSD Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501190
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	17,100	40.3	7.26	1
06944	Antimony	7440-36-0	24.7	4.03	0.746	1
06935	Arsenic	7440-38-2	20.6	4.03	0.705	1
06946	Barium	7440-39-3	285	1.01	0.0333	1
06947	Beryllium	7440-41-7	5.72	1.01	0.0675	1
07914	Boron	7440-42-8	201	10.1	0.846	1
06949	Cadmium	7440-43-9	4.69	1.01	0.0766	1
01650	Calcium	7440-70-2	2,680	20.2	3.37	1
06951	Chromium	7440-47-3	38.6	3.02	0.161	1
06952	Cobalt	7440-48-4	53.0	1.01	0.0998	1
06953	Copper	7440-50-8	35.8	2.02	0.292	1
01654	Iron	7439-89-6	18,900	40.3	3.65	1
06955	Lead	7439-92-1	23.4	3.02	0.504	1
01656	Lithium	7439-93-2	129	4.0	0.34	1
01657	Magnesium	7439-95-4	4,180	10.1	1.68	1
06958	Manganese	7439-96-5	342	1.01	0.0836	1
06960	Molybdenum	7439-98-7	192	2.02	0.171	1
06961	Nickel	7440-02-0	60.6	2.02	0.131	1
10145	Phosphorus	7723-14-0	589	10.1	2.91	1
01662	Potassium	7440-09-7	4,890	101	8.40	1
01667	Sodium	7440-23-5	1,130	101	16.8	1
06969	Tin	7440-31-5	363	10.1	0.222	1
06970	Titanium	7440-32-6	1,270	1.01	0.171	1
06971	Vanadium	7440-62-2	84.6	1.01	0.131	1
06972	Zinc	7440-66-6	106	4.03	0.202	1
10146	Zirconium	7440-67-7	103	5.04	0.846	1
	SW-846 6020A		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.62	0.403	0.101	2
06142	Silver	7440-22-4	12.9	0.202	0.0262	2
06144	Strontium	7440-24-6	28.3	0.403	0.0685	2
06145	Thallium	7440-28-0	0.738	0.202	0.0302	2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.166	0.0169	0.0101	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	2.7	0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 MSD Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501190
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	19.2	B	1.00	0.0915	1
11031	12378-PeCDD	40321-76-4	104	B	5.00	0.0752	1
11031	123478-HxCDD	39227-28-6	102		5.00	0.0826	1
11031	123678-HxCDD	57653-85-7	103	B	5.00	0.0881	1
11031	123789-HxCDD	19408-74-3	102	B	5.00	0.0814	1
11031	1234678-HpCDD	35822-46-9	154	B	5.00	0.128	1
11031	OCDD	3268-87-9	1,400	B	10.0	0.0938	1
11031	2378-TCDF	51207-31-9	20.9		1.00	0.0859	1
11031	12378-PeCDF	57117-41-6	101	B	5.00	0.0513	1
11031	23478-PeCDF	57117-31-4	103	B	5.00	0.0537	1
11031	123478-HxCDF	70648-26-9	103	B	5.00	0.108	1
11031	123678-HxCDF	57117-44-9	101	B	5.00	0.0945	1
11031	123789-HxCDF	72918-21-9	102		5.00	0.115	1
11031	234678-HxCDF	60851-34-5	102	B	5.00	0.100	1
11031	1234678-HpCDF	67562-39-4	106	B	5.00	0.0557	1
11031	1234789-HpCDF	55673-89-7	99.7	B	5.00	0.0806	1
11031	OCDF	39001-02-0	214	B	10.0	0.0636	1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	80	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	81	23 - 140
13C12-OCDD	78	17 - 157
13C12-2378-TCDF	79	24 - 169
13C12-12378-PeCDF	91	24 - 185
13C12-23478-PeCDF	84	21 - 178
13C12-123478-HxCDF	82	26 - 152
13C12-123678-HxCDF	92	26 - 123
13C12-234678-HxCDF	86	28 - 136
13C12-123789-HxCDF	85	29 - 147
13C12-1234678-HpCDF	100	28 - 143
13C12-1234789-HpCDF	76	26 - 138
13C12-OCDF	68	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 MSD Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501190
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
S	*Saturation of detection signal*					

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 MSD Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501190
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03MSD

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141761AA	06/25/2014 16:46	Angela D Sneeringer	1
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141761AA	06/25/2014 17:31	Angela D Sneeringer	1.01
10326	13a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E141761AA	06/25/2014 15:57	Jason M Long	24.85
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201416834829	06/17/2014 15:14	Larry E Bevins	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201416834829	06/17/2014 15:14	Larry E Bevins	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	3	201416834829	06/17/2014 15:15	Larry E Bevins	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	4	201416834829	06/17/2014 15:14	Larry E Bevins	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201416834829	06/17/2014 15:03	Larry E Bevins	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	2	201416834829	06/17/2014 15:04	Larry E Bevins	n.a.
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14169SLA026	06/24/2014 05:32	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14169SLA026	06/19/2014 10:30	Anna E Stager	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14170A16A	06/19/2014 23:39	Laura M Krieger	25.05
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201416834829	06/17/2014 14:58	Larry E Bevins	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201416834829	06/17/2014 14:59	Larry E Bevins	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141720009A	06/23/2014 21:46	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141720009A	06/23/2014 05:30	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141700025A	06/20/2014 21:52	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141770026A	06/30/2014 22:27	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	2	141770026A	06/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141700025A	06/20/2014 09:30	Katheryne V Sponheimer	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14170002	06/21/2014 05:52	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14170002	06/19/2014 11:00	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 MSD Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501190
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06949	Cadmium	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141680637002	06/19/2014 16:42	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141680637002B	06/19/2014 06:59	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141680637002A	06/19/2014 06:59	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141680637002A	06/19/2014 06:59	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141680637002A	06/19/2014 06:59	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141680638002	06/19/2014 11:04	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141680637002	06/18/2014 12:24	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141680638002	06/18/2014 14:47	James L Mertz	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14174162401A	06/23/2014 20:06	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 DUP Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501191
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03DUP

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,400		40.7	7.34	1
06944	Antimony	7440-36-0	4.07	U	4.07	0.753	1
06935	Arsenic	7440-38-2	5.49		4.07	0.712	1
06946	Barium	7440-39-3	110		1.02	0.0336	1
06947	Beryllium	7440-41-7	0.586	J	1.02	0.0682	1
07914	Boron	7440-42-8	4.20	J	10.2	0.855	1
06949	Cadmium	7440-43-9	1.02	U	1.02	0.0773	1
01650	Calcium	7440-70-2	2,430		20.4	3.40	1
06951	Chromium	7440-47-3	20.5		3.05	0.163	1
06952	Cobalt	7440-48-4	5.12		1.02	0.101	1
06953	Copper	7440-50-8	12.0		2.04	0.295	1
01654	Iron	7439-89-6	19,300		40.7	3.68	1
06955	Lead	7439-92-1	8.18		3.05	0.509	1
01656	Lithium	7439-93-2	19.5		4.1	0.35	1
01657	Magnesium	7439-95-4	4,150		10.2	1.70	1
06958	Manganese	7439-96-5	341		1.02	0.0845	1
06960	Molybdenum	7439-98-7	0.421	J	2.04	0.173	1
06961	Nickel	7440-02-0	12.7		2.04	0.132	1
10145	Phosphorus	7723-14-0	446		10.2	2.94	1
01662	Potassium	7440-09-7	3,780		102	8.49	1
01667	Sodium	7440-23-5	74.5	J	102	17.0	1
06969	Tin	7440-31-5	2.59	J	10.2	0.224	1
06970	Titanium	7440-32-6	1,070		1.02	0.173	1
06971	Vanadium	7440-62-2	34.9		1.02	0.132	1
06972	Zinc	7440-66-6	57.6		4.07	0.204	1
10146	Zirconium	7440-67-7	3.45	J	5.09	0.855	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.266	J	0.407	0.102	2
06142	Silver	7440-22-4	0.0332	J	0.204	0.0265	2
06144	Strontium	7440-24-6	23.7		0.407	0.0692	2
06145	Thallium	7440-28-0	0.263		0.204	0.0305	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0187		0.0164	0.0098	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.13		0.0100	0.0100	1
	The pH was measured in water at 23.2 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	2.7		0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	2.6		0.10	0.10	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-875-SA5A-SB-2.0-3.0 DUP Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501191
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87520 SDG#: PH234-03DUP

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141680637002	06/19/2014 16:34	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141680637002B	06/19/2014 06:55	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141680637002A	06/19/2014 06:55	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141680637002A	06/19/2014 06:55	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141680637002A	06/19/2014 06:55	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141680638002	06/19/2014 11:00	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141680637002	06/18/2014 12:24	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141680638002	06/18/2014 14:47	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14168039402A	06/17/2014 21:10	Luz M Groff	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	14174162401A	06/23/2014 20:06	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	14174162401A	06/23/2014 20:06	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-876-SA5A-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501192
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 09:15 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87600 SDG#: PH234-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	17	U	17	6.7	10
12969	Acenaphthylene	208-96-8	17	U	17	3.4	10
12969	Anthracene	120-12-7	17	U	17	3.4	10
12969	Benzo(a)anthracene	56-55-3	6.9	J	17	6.7	10
12969	Benzo(a)pyrene	50-32-8	17	U	17	6.7	10
12969	Benzo(b)fluoranthene	205-99-2	21		17	6.7	10
12969	Benzo(e)pyrene	192-97-2	170	U	170	33	10
12969	Benzo(g,h,i)perylene	191-24-2	7.0	J	17	6.7	10
12969	Benzo(k)fluoranthene	207-08-9	24		17	6.7	10
12969	Butylbenzylphthalate	85-68-7	180	U	180	60	10
12969	Di-n-butylphthalate	84-74-2	180	U	180	60	10
12969	Chrysene	218-01-9	29		17	3.4	10
12969	Dibenz(a,h)anthracene	53-70-3	17	U	17	6.7	10
12969	Diethylphthalate	84-66-2	180	U	180	60	10
12969	Dimethylphthalate	131-11-3	180	U	180	60	10
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	180	U	180	60	10
12969	Fluoranthene	206-44-0	42		17	6.7	10
12969	Fluorene	86-73-7	17	U	17	6.7	10
12969	Indeno(1,2,3-cd)pyrene	193-39-5	17	U	17	6.7	10
12969	1-Methylnaphthalene	90-12-0	17	U	17	6.7	10
12969	2-Methylnaphthalene	91-57-6	17	U	17	6.7	10
12969	Naphthalene	91-20-3	17	U	17	6.7	10
12969	N-Nitrosodimethylamine	62-75-9	17	U	17	6.7	10
12969	Di-n-octylphthalate	117-84-0	180	U	180	60	10
12969	Phenanthrene	85-01-8	26		17	6.7	10
12969	Pyrene	129-00-0	33		17	6.7	10

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
chrysene

GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	10	U	10	4.0	2
12952	EFH (C15-C20)	n.a.	10	U	10	4.0	2
12952	EFH (C21-C30)	n.a.	32		10	4.0	2
12952	EFH (C30-C40)	n.a.	90		20	8.1	2
12952	EFH (C8-C11)	n.a.	10	U	10	4.0	2
13197	EFH C12-C14 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	16		5.0	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	25		10	4.0	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.0	U	5.0	2.0	1

The reverse surrogate, capric acid, is present at <1%.

Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.2		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-876-SA5A-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501192
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 09:15 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87600 SDG#: PH234-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14169SLA026	06/26/2014 02:10	Mark A Clark	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	14169SLA026	06/19/2014 10:30	Anna E Stager	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141700025A	06/24/2014 00:15	Heather E Williams	2
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141770026A	06/30/2014 22:49	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	2	141770026A	06/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141700025A	06/20/2014 09:30	Katheryne V Sponheimer	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14174162401A	06/23/2014 20:06	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-876-SA5A-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501193
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 09:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87640 SDG#: PH234-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	0.47	J	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.2	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.69	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
chrysene

GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	25.88
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C30-C40)	n.a.	10	U	10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.2	U	5.2	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.2	U	5.2	2.1	1

The reverse surrogate, capric acid, is present at <1%.

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-876-SA5A-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501193
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 09:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87640 SDG#: PH234-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	4.3	0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-876-SA5A-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501193
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 09:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87640 SDG#: PH234-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0631	JBQ	1.02	0.0619	1
11031	12378-PeCDD	40321-76-4	0.157	JBQ	5.09	0.0413	1
11031	123478-HxCDD	39227-28-6	0.193	JQ	5.09	0.0391	1
11031	123678-HxCDD	57653-85-7	0.350	JBQ	5.09	0.0397	1
11031	123789-HxCDD	19408-74-3	0.350	JB	5.09	0.0364	1
11031	1234678-HpCDD	35822-46-9	5.89	B	5.09	0.0418	1
11031	OCDD	3268-87-9	112	B	10.2	0.0474	1
11031	2378-TCDF	51207-31-9	1.02	U	1.02	0.0563	1
11031	12378-PeCDF	57117-41-6	0.149	JB	5.09	0.0218	1
11031	23478-PeCDF	57117-31-4	0.117	JBQ	5.09	0.0208	1
11031	123478-HxCDF	70648-26-9	0.134	JBQ	5.09	0.0299	1
11031	123678-HxCDF	57117-44-9	0.120	JBQ	5.09	0.0274	1
11031	123789-HxCDF	72918-21-9	0.211	J	5.09	0.0314	1
11031	234678-HxCDF	60851-34-5	0.149	JBQ	5.09	0.0288	1
11031	1234678-HpCDF	67562-39-4	0.592	JB	5.09	0.0154	1
11031	1234789-HpCDF	55673-89-7	0.123	JBQ	5.09	0.0269	1
11031	OCDF	39001-02-0	1.84	JBQ	10.2	0.0411	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.159				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	59	25 - 164
13C12-12378-PeCDD	75	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	75	23 - 140
13C12-OCDD	65	17 - 157
13C12-2378-TCDF	59	24 - 169
13C12-12378-PeCDF	79	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	86	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	82	29 - 147
13C12-1234678-HpCDF	99	28 - 143
13C12-1234789-HpCDF	65	26 - 138
13C12-OCDF	54	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-876-SA5A-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501193
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 09:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87640 SDG#: PH234-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-876-SA5A-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501193
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 09:45 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87640 SDG#: PH234-05

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14169SLA026	06/25/2014 05:00	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14169SLA026	06/19/2014 10:30	Anna E Stager	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14170A16A	06/19/2014 20:30	Laura M Krieger	25.88
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201416834829	06/17/2014 14:47	Larry E Bevins	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201416834829	06/17/2014 14:47	Larry E Bevins	n.a.
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141700025A	06/20/2014 19:22	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141770026A	06/30/2014 16:46	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	2	141770026A	06/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141700025A	06/20/2014 09:30	Katheryne V Sponheimer	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14170002	06/21/2014 06:49	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14170002	06/19/2014 11:00	Robert Brown	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14174162401A	06/23/2014 20:06	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-1175-SA5A-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501194
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:50 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11752 SDG#: PH234-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	Acetone	67-64-1	21	U	21	7	1.02
10237	Acrolein	107-02-8	100	U	100	21	1.02
10237	Acrylonitrile	107-13-1	21	U	21	4	1.02
10237	t-Amyl methyl ether	994-05-8	5	U	5	1	1.02
10237	Benzene	71-43-2	5	U	5	0.5	1.02
10237	Bromobenzene	108-86-1	5	U	5	1	1.02
10237	Bromochloromethane	74-97-5	5	U	5	1	1.02
10237	Bromodichloromethane	75-27-4	5	U	5	1	1.02
10237	Bromoform	75-25-2	5	U	5	1	1.02
10237	Bromomethane	74-83-9	5	U	5	2	1.02
10237	2-Butanone	78-93-3	10	U	10	4	1.02
10237	t-Butyl alcohol	75-65-0	52	U	52	21	1.02
10237	n-Butylbenzene	104-51-8	5	U	5	1	1.02
10237	sec-Butylbenzene	135-98-8	5	U	5	1	1.02
10237	tert-Butylbenzene	98-06-6	5	U	5	1	1.02
10237	Carbon Disulfide	75-15-0	5	U	5	1	1.02
10237	Carbon Tetrachloride	56-23-5	5	U	5	1	1.02
10237	Chlorobenzene	108-90-7	5	U	5	1	1.02
10237	Chloroethane	75-00-3	5	U	5	2	1.02
10237	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1.02
10237	Chloroform	67-66-3	5	U	5	1	1.02
10237	1-Chlorohexane	544-10-5	5	U	5	1	1.02
10237	Chloromethane	74-87-3	5	U	5	2	1.02
10237	2-Chlorotoluene	95-49-8	5	U	5	1	1.02
10237	4-Chlorotoluene	106-43-4	5	U	5	1	1.02
10237	Chlorotrifluoroethene	79-38-9	5	U	5	2	1.02
10237	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1.02
10237	Dibromochloromethane	124-48-1	5	U	5	1	1.02
10237	1,2-Dibromoethane	106-93-4	5	U	5	1	1.02
10237	Dibromomethane	74-95-3	5	U	5	1	1.02
10237	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1.02
10237	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1.02
10237	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1.02
10237	Dichlorodifluoromethane	75-71-8	5	U	5	2	1.02
10237	1,1-Dichloroethane	75-34-3	5	U	5	1	1.02
10237	1,2-Dichloroethane	107-06-2	5	U	5	1	1.02
10237	1,1-Dichloroethene	75-35-4	5	U	5	1	1.02
10237	cis-1,2-Dichloroethene	156-59-2	5	U	5	1	1.02
10237	trans-1,2-Dichloroethene	156-60-5	5	U	5	1	1.02
10237	1,2-Dichloropropane	78-87-5	5	U	5	1	1.02
10237	1,3-Dichloropropane	142-28-9	5	U	5	1	1.02
10237	2,2-Dichloropropane	594-20-7	5	U	5	1	1.02
10237	1,1-Dichloropropene	563-58-6	5	U	5	1	1.02
10237	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1	1.02
10237	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1	1.02
10237	Ethyl t-butyl ether	637-92-3	5	U	5	1	1.02
10237	Ethylbenzene	100-41-4	5	U	5	1	1.02
10237	Freon 113	76-13-1	5	U	5	2	1.02
10237	Freon 133a	75-88-7	5	U	5	2	1.02
10237	Hexachlorobutadiene	87-68-3	5	U	5	2	1.02
10237	2-Hexanone	591-78-6	10	U	10	3	1.02

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-1175-SA5A-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501194
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:50 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11752 SDG#: PH234-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	**ug/kg**	
10237	di-Isopropyl ether	108-20-3	5	U	5	1	1.02
10237	Isopropylbenzene	98-82-8	5	U	5	1	1.02
10237	p-Isopropyltoluene	99-87-6	5	U	5	1	1.02
10237	Methyl Iodide	74-88-4	5	U	5	3	1.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5	1.02
10237	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1.02
10237	Methylene Chloride	75-09-2	5	U	5	2	1.02
10237	n-Propylbenzene	103-65-1	5	U	5	1	1.02
10237	Styrene	100-42-5	5	U	5	1	1.02
10237	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1	1.02
10237	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1	1.02
10237	Tetrachloroethene	127-18-4	5	U	5	1	1.02
10237	Toluene	108-88-3	5	U	5	1	1.02
10237	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1.02
10237	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1.02
10237	1,1,1-Trichloroethane	71-55-6	5	U	5	1	1.02
10237	1,1,2-Trichloroethane	79-00-5	5	U	5	1	1.02
10237	Trichloroethene	79-01-6	5	U	5	1	1.02
10237	Trichlorofluoromethane	75-69-4	5	U	5	2	1.02
10237	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1.02
10237	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1.02
10237	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1.02
10237	Vinyl Acetate	108-05-4	10	U	10	2	1.02
10237	Vinyl Chloride	75-01-4	5	U	5	1	1.02
10237	m+p-Xylene	179601-23-1	5	U	5	1	1.02
10237	o-Xylene	95-47-6	5	U	5	1	1.02
GC/MS Volatiles	**SW-846 8260B SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
10326	1,4-Dioxane	123-91-1	15	U	15	4.9	24.08

The surrogate recovery for toluene-d8 is outside of QC limits for the GC/MS volatile fraction. The surrogate was mis-spiked in the sample vial which resulted in a saturated peak. The analysis was not repeated.

GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	0.81	J	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	2.4		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	0.68	J	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	1.3	J	1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	2.7		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.1	1
12969	Fluoranthene	206-44-0	1.3	J	1.7	0.68	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-1175-SA5A-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501194
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:50 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11752 SDG#: PH234-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.68	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.68	1
12969	Pyrene	129-00-0	1.0	J	1.7	0.68	1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: chrysene						
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2	25.3
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.4	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.2	1
13099	PCB-1242	53469-21-9	17	U	17	4.2	1
13099	PCB-1248	12672-29-6	17	U	17	3.4	1
13099	PCB-1254	11097-69-1	17	U	17	4.5	1
13099	PCB-1260	11096-82-5	17	U	17	4.0	1
13099	PCB-1262	37324-23-5	17	U	17	3.4	1
13099	PCB-1268	11100-14-4	17	U	17	3.4	1
	For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	13		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	36		10	4.0	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	3.6	J	5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	14		10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
	Due to the matrix of the sample extract, capric acid recovery can not be determined.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-1175-SA5A-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501194
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:50 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11752 SDG#: PH234-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,600		39.8	7.17	1
06944	Antimony	7440-36-0	3.98	U	3.98	0.736	1
06935	Arsenic	7440-38-2	5.50		3.98	0.696	1
06946	Barium	7440-39-3	96.4		0.995	0.0328	1
06947	Beryllium	7440-41-7	0.548	J	0.995	0.0666	1
07914	Boron	7440-42-8	4.08	J	9.95	0.836	1
06949	Cadmium	7440-43-9	0.995	U	0.995	0.0756	1
01650	Calcium	7440-70-2	2,090		19.9	3.32	1
06951	Chromium	7440-47-3	18.4		2.98	0.159	1
06952	Cobalt	7440-48-4	4.77		0.995	0.0985	1
06953	Copper	7440-50-8	11.5		1.99	0.288	1
01654	Iron	7439-89-6	18,600		39.8	3.60	1
06955	Lead	7439-92-1	13.1		2.98	0.497	1
01656	Lithium	7439-93-2	19.9		4.0	0.34	1
01657	Magnesium	7439-95-4	4,010		9.95	1.66	1
06958	Manganese	7439-96-5	306		0.995	0.0826	1
06960	Molybdenum	7439-98-7	0.410	J	1.99	0.169	1
06961	Nickel	7440-02-0	11.7		1.99	0.129	1
10145	Phosphorus	7723-14-0	467		9.95	2.87	1
01662	Potassium	7440-09-7	3,440		99.5	8.30	1
01667	Sodium	7440-23-5	76.3	J	99.5	16.6	1
06969	Tin	7440-31-5	2.42	J	9.95	0.219	1
06970	Titanium	7440-32-6	1,000		0.995	0.169	1
06971	Vanadium	7440-62-2	32.5		0.995	0.129	1
06972	Zinc	7440-66-6	57.5		3.98	0.199	1
10146	Zirconium	7440-67-7	3.05	J	4.97	0.836	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.268	J	0.398	0.0995	2
06142	Silver	7440-22-4	0.0426	J	0.199	0.0259	2
06144	Strontium	7440-24-6	19.8		0.398	0.0676	2
06145	Thallium	7440-28-0	0.284		0.199	0.0298	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0197		0.0160	0.0096	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	5.86		0.0100	0.0100	1
	The pH was measured in water at 23.2 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.4		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-1175-SA5A-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501194
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:50 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11752 SDG#: PH234-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.976	U	0.976	0.0539	1
11031	12378-PeCDD	40321-76-4	0.257	JBQ	4.88	0.0592	1
11031	123478-HxCDD	39227-28-6	0.590	J	4.88	0.0628	1
11031	123678-HxCDD	57653-85-7	2.81	JB	4.88	0.0636	1
11031	123789-HxCDD	19408-74-3	1.80	JB	4.88	0.0584	1
11031	1234678-HpCDD	35822-46-9	104	B	4.88	0.140	1
11031	OCDD	3268-87-9	2,800	B	9.76	0.111	1
11031	2378-TCDF	51207-31-9	0.172	JQ	0.976	0.0835	1
11031	12378-PeCDF	57117-41-6	0.359	JBQ	4.88	0.0372	1
11031	23478-PeCDF	57117-31-4	0.310	JBQ	4.88	0.0381	1
11031	123478-HxCDF	70648-26-9	0.529	JB	4.88	0.0454	1
11031	123678-HxCDF	57117-44-9	0.290	JBQ	4.88	0.0449	1
11031	123789-HxCDF	72918-21-9	0.505	J	4.88	0.0379	1
11031	234678-HxCDF	60851-34-5	0.491	JB	4.88	0.0451	1
11031	1234678-HpCDF	67562-39-4	8.99	B	4.88	0.0270	1
11031	1234789-HpCDF	55673-89-7	0.366	JB	4.88	0.0420	1
11031	OCDF	39001-02-0	32.0	B	9.76	0.0424	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	2.66				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	82	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	84	17 - 157
13C12-2378-TCDF	77	24 - 169
13C12-12378-PeCDF	93	24 - 185
13C12-23478-PeCDF	86	21 - 178
13C12-123478-HxCDF	86	26 - 152
13C12-123678-HxCDF	91	26 - 123
13C12-234678-HxCDF	88	28 - 136
13C12-123789-HxCDF	114	29 - 147
13C12-1234678-HpCDF	109	28 - 143
13C12-1234789-HpCDF	80	26 - 138
13C12-OCDF	70	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-1175-SA5A-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501194
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:50 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11752 SDG#: PH234-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-1175-SA5A-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501194
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:50 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11752 SDG#: PH234-06

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	12a Volatile Organics EPA8260B	SW-846 8260B	1	B141761AA	06/25/2014 17:53	Angela D Sneeringer	1.02
10326	13a 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E141761AA	06/25/2014 14:54	Jason M Long	24.08
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	1	201416834829	06/17/2014 15:14	Larry E Bevins	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	2	201416834829	06/17/2014 15:15	Larry E Bevins	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	3	201416834829	06/17/2014 15:14	Larry E Bevins	n.a.
07320	GC/MS - LL DIH2O Encore Prep	SW-846 5035	4	201416834829	06/17/2014 15:15	Larry E Bevins	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	1	201416834829	06/17/2014 14:52	Larry E Bevins	n.a.
07578	GC/MS-HL Encore Prep-NC	SW-846 5035	2	201416834829	06/17/2014 14:52	Larry E Bevins	n.a.
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14169SLA026	06/25/2014 05:34	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14169SLA026	06/19/2014 10:30	Anna E Stager	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14170A16A	06/19/2014 21:08	Laura M Krieger	25.3
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201416834829	06/17/2014 14:53	Larry E Bevins	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201416834829	06/17/2014 14:53	Larry E Bevins	n.a.
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141720009A	06/23/2014 22:05	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141720009A	06/23/2014 05:30	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141700025A	06/20/2014 20:47	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141770026A	06/30/2014 21:23	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	2	141770026A	06/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141700025A	06/20/2014 09:30	Katheryne V Sponheimer	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14170002	06/21/2014 07:45	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14170002	06/19/2014 11:00	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-1175-SA5A-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501194
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 08:50 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

11752 SDG#: PH234-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06951	Chromium	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	141680637002	06/19/2014 17:38	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	141680637002B	06/19/2014 07:32	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141680637002A	06/19/2014 07:32	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141680637002A	06/19/2014 07:32	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141680637002A	06/19/2014 07:32	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141680638002	06/19/2014 11:06	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141680637002	06/18/2014 12:24	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141680638002	06/18/2014 14:47	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14168039402A	06/17/2014 21:10	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14174162401A	06/23/2014 20:06	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-877-SA5A-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501195
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 10:55 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87700 SDG#: PH234-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.67	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.33	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.33	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.67	1
12969	Benzo(a)pyrene	50-32-8	0.73	J	1.7	0.67	1
12969	Benzo(b)fluoranthene	205-99-2	1.8		1.7	0.67	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.3	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.67	1
12969	Benzo(k)fluoranthene	207-08-9	2.6		1.7	0.67	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.0	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.0	1
12969	Chrysene	218-01-9	2.2		1.7	0.33	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.67	1
12969	Diethylphthalate	84-66-2	18	U	18	6.0	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.0	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	8.3	J	18	6.0	1
12969	Fluoranthene	206-44-0	2.3		1.7	0.67	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.67	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.67	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.67	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.67	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.67	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.67	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.0	1
12969	Phenanthrene	85-01-8	1.3	J	1.7	0.67	1
12969	Pyrene	129-00-0	1.8		1.7	0.67	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
chrysene

GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.0	U	5.0	2.0	1
12952	EFH (C15-C20)	n.a.	5.0	U	5.0	2.0	1
12952	EFH (C21-C30)	n.a.	6.7		5.0	2.0	1
12952	EFH (C30-C40)	n.a.	17		10	4.0	1
12952	EFH (C8-C11)	n.a.	5.0	U	5.0	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.0	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.0	U	5.0	2.0	1

The reverse surrogate, capric acid, is present at <1%.
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The recovery for the method blank surrogate(s) is outside the QC acceptance limits as noted on the QC Summary.
The following corrective action was taken:
The sample was re-extracted within the method required holding

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-877-SA5A-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501195
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 10:55 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87700 SDG#: PH234-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	time and the QC is compliant. The recovery for the sample surrogate(s) is outside the QC acceptance limits for the re-extraction. All results are reported from the first trial. Similar results were obtained in both trials.					
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	0.80	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14169SLA026	06/25/2014 06:07	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14169SLA026	06/19/2014 10:30	Anna E Stager	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141770027A	06/27/2014 20:30	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141700026A	06/25/2014 00:18	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141700026A	06/20/2014 09:30	Katheryne V Sponheimer	1
12959	EFH soil ext.(microwave)	SW-846 3546	2	141770027A	06/27/2014 11:00	William H Saadeh	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14174162401A	06/23/2014 20:06	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-877-SA5A-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501196
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 11:10 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87730 SDG#: PH234-08*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.2	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.2	1
12969	Chrysene	218-01-9	1.7	U	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	18	U	18	6.2	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.2	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	8.1	J	18	6.2	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.69	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2	25.46
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C21-C30)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C30-C40)	n.a.	10	U	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
The reverse surrogate, capric acid, is present at <1%.							
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.0		0.10	0.10	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-877-SA5A-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501196
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 11:10 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87730 SDG#: PH234-08*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-877-SA5A-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501196
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 11:10 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87730 SDG#: PH234-08*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.999 U	0.999	0.0718	1
11031	12378-PeCDD	40321-76-4	0.0588 JBQ	4.99	0.0423	1
11031	123478-HxCDD	39227-28-6	0.0520 J	4.99	0.0318	1
11031	123678-HxCDD	57653-85-7	0.161 JBQ	4.99	0.0325	1
11031	123789-HxCDD	19408-74-3	0.144 JBQ	4.99	0.0291	1
11031	1234678-HpCDD	35822-46-9	3.38 JB	4.99	0.0527	1
11031	OCDD	3268-87-9	96.7 B	9.99	0.0464	1
11031	2378-TCDF	51207-31-9	0.999 U	0.999	0.0562	1
11031	12378-PeCDF	57117-41-6	0.0428 JBQ	4.99	0.0242	1
11031	23478-PeCDF	57117-31-4	0.0261 JBQ	4.99	0.0241	1
11031	123478-HxCDF	70648-26-9	0.0813 JBQ	4.99	0.0221	1
11031	123678-HxCDF	57117-44-9	0.0336 JBQ	4.99	0.0186	1
11031	123789-HxCDF	72918-21-9	0.105 JQ	4.99	0.0240	1
11031	234678-HxCDF	60851-34-5	0.0452 JBQ	4.99	0.0201	1
11031	1234678-HpCDF	67562-39-4	0.322 JB	4.99	0.0168	1
11031	1234789-HpCDF	55673-89-7	0.0376 JBQ	4.99	0.0268	1
11031	OCDF	39001-02-0	1.08 JB	9.99	0.0393	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0716			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	61	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	73	17 - 157
13C12-2378-TCDF	59	24 - 169
13C12-12378-PeCDF	82	24 - 185
13C12-23478-PeCDF	79	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	88	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	102	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	61	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-877-SA5A-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501196
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 11:10 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87730 SDG#: PH234-08*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-877-SA5A-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 5A

LL Sample # SW 7501196
LL Group # 1482333
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/16/2014 11:10 by SD

Submitted: 06/17/2014 09:15
Reported: 07/07/2014 12:29

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

87730 SDG#: PH234-08*

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14169SLA026	06/25/2014 06:40	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14169SLA026	06/19/2014 10:30	Anna E Stager	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	14170A16A	06/19/2014 21:46	Laura M Krieger	25.46
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201416834829	06/17/2014 14:45	Larry E Bevins	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201416834829	06/17/2014 14:46	Larry E Bevins	n.a.
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141700025A	06/20/2014 19:01	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141770026A	06/30/2014 17:28	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	2	141770026A	06/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141700025A	06/20/2014 09:30	Katheryne V Sponheimer	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14170002	06/21/2014 08:42	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B October 1994	1	14170002	06/19/2014 11:00	Robert Brown	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14174162401A	06/23/2014 20:06	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1482333
Reported: 07/07/14 at 12:29 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B141761AA	Sample number(s): 7501188-7501190,7501194									
Acetone	20	U	20.	7	ug/kg	85		41-149		
Acrolein	100 U		100.	20	ug/kg	92		50-137		
Acrylonitrile	20	U	20.	4	ug/kg	90		58-123		
t-Amyl methyl ether	5	U	5.	1	ug/kg	98		63-130		
Benzene	5	U	5.	0.5	ug/kg	100		80-120		
Bromobenzene	5	U	5.	1	ug/kg	103		78-120		
Bromochloromethane	5	U	5.	1	ug/kg	97		75-129		
Bromodichloromethane	5	U	5.	1	ug/kg	90		75-120		
Bromoform	5	U	5.	1	ug/kg	81		70-126		
Bromomethane	5	U	5.	2	ug/kg	69		32-162		
2-Butanone	10	U	10.	4	ug/kg	91		47-136		
t-Butyl alcohol	50	U	50.	20	ug/kg	97		66-133		
n-Butylbenzene	5	U	5.	1	ug/kg	106		72-120		
sec-Butylbenzene	5	U	5.	1	ug/kg	105		69-120		
tert-Butylbenzene	5	U	5.	1	ug/kg	106		75-120		
Carbon Disulfide	5	U	5.	1	ug/kg	87		63-128		
Carbon Tetrachloride	5	U	5.	1	ug/kg	89		69-130		
Chlorobenzene	5	U	5.	1	ug/kg	105		80-120		
Chloroethane	5	U	5.	2	ug/kg	64		17-171		
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/kg	92		52-134		
Chloroform	5	U	5.	1	ug/kg	101		80-120		
1-Chlorohexane	5	U	5.	1	ug/kg	102		70-130		
Chloromethane	5	U	5.	2	ug/kg	91		56-120		
2-Chlorotoluene	5	U	5.	1	ug/kg	104		78-120		
4-Chlorotoluene	5	U	5.	1	ug/kg	105		79-120		
Chlorotrifluoroethene	5	U	5.	2	ug/kg	89		22-131		
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/kg	90		50-132		
Dibromochloromethane	5	U	5.	1	ug/kg	89		77-120		
1,2-Dibromoethane	5	U	5.	1	ug/kg	104		80-120		
Dibromomethane	5	U	5.	1	ug/kg	96		75-120		
1,2-Dichlorobenzene	5	U	5.	1	ug/kg	107		80-120		
1,3-Dichlorobenzene	5	U	5.	1	ug/kg	102		80-120		
1,4-Dichlorobenzene	5	U	5.	1	ug/kg	104		80-120		
Dichlorodifluoromethane	5	U	5.	2	ug/kg	89		26-137		
1,1-Dichloroethane	5	U	5.	1	ug/kg	101		71-122		
1,2-Dichloroethane	5	U	5.	1	ug/kg	102		66-136		
1,1-Dichloroethene	5	U	5.	1	ug/kg	102		73-129		
cis-1,2-Dichloroethene	5	U	5.	1	ug/kg	102		80-120		
trans-1,2-Dichloroethene	5	U	5.	1	ug/kg	108		79-120		
1,2-Dichloropropane	5	U	5.	1	ug/kg	100		77-120		
1,3-Dichloropropane	5	U	5.	1	ug/kg	103		73-120		
2,2-Dichloropropane	5	U	5.	1	ug/kg	97		72-123		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1482333
Reported: 07/07/14 at 12:29 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloropropene	5	U	5.	1	ug/kg	105		77-120		
cis-1,3-Dichloropropene	5	U	5.	1	ug/kg	96		74-120		
trans-1,3-Dichloropropene	5	U	5.	1	ug/kg	100		69-120		
Ethyl t-butyl ether	5	U	5.	1	ug/kg	99		59-134		
Ethylbenzene	5	U	5.	1	ug/kg	106		80-120		
Freon 113	5	U	5.	2	ug/kg	92		64-137		
Freon 133a	5	U	5.	2	ug/kg	100		78-120		
Hexachlorobutadiene	5	U	5.	2	ug/kg	100		46-130		
2-Hexanone	10	U	10.	3	ug/kg	98		40-129		
di-Isopropyl ether	5	U	5.	1	ug/kg	104		68-128		
Isopropylbenzene	5	U	5.	1	ug/kg	108		76-120		
p-Isopropyltoluene	5	U	5.	1	ug/kg	104		69-120		
Methyl Iodide	5	U	5.	3	ug/kg	97		72-130		
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/kg	101		69-126		
4-Methyl-2-pentanone	10	U	10.	3	ug/kg	95		43-133		
Methylene Chloride	5	U	5.	2	ug/kg	102		80-124		
n-Propylbenzene	5	U	5.	1	ug/kg	106		77-120		
Styrene	5	U	5.	1	ug/kg	107		76-120		
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/kg	95		80-120		
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/kg	100		71-123		
Tetrachloroethene	5	U	5.	1	ug/kg	104		78-120		
Toluene	5	U	5.	1	ug/kg	105		80-120		
1,2,3-Trichlorobenzene	5	U	5.	1	ug/kg	101		64-120		
1,2,4-Trichlorobenzene	5	U	5.	1	ug/kg	102		68-120		
1,1,1-Trichloroethane	5	U	5.	1	ug/kg	86		63-135		
1,1,2-Trichloroethane	5	U	5.	1	ug/kg	104		80-120		
Trichloroethene	5	U	5.	1	ug/kg	101		80-120		
Trichlorofluoromethane	5	U	5.	2	ug/kg	87		58-133		
1,2,3-Trichloropropane	5	U	5.	1	ug/kg	104		71-123		
1,2,4-Trimethylbenzene	5	U	5.	1	ug/kg	105		79-120		
1,3,5-Trimethylbenzene	5	U	5.	1	ug/kg	106		78-120		
Vinyl Acetate	10	U	10.	2	ug/kg	101		40-127		
Vinyl Chloride	5	U	5.	1	ug/kg	94		59-120		
m+p-Xylene	5	U	5.	1	ug/kg	107		80-120		
o-Xylene	5	U	5.	1	ug/kg	107		80-120		
Batch number: E141682AA	Sample number(s): 7501186									
1,4-Dioxane	2.0	U	2.0	0.5	ug/l	103	105	80-123	2	30
Batch number: E141761AA	Sample number(s): 7501188-7501190,7501194									
1,4-Dioxane	15	U	15.	5.0	ug/kg	96		70-130		
Batch number: Y141701AA	Sample number(s): 7501186									
Acetone	20	U	20.	6	ug/l	82	85	43-149	4	30
Acrolein	100 U		100.	40	ug/l	97	94	52-129	3	30
Acrylonitrile	20	U	20.	4	ug/l	89	94	62-120	6	30
t-Amyl methyl ether	1	U	1.	0.5	ug/l	101	102	75-120	1	30
Benzene	1	U	1.	0.5	ug/l	103	105	78-120	1	30
Bromobenzene	5	U	5.	1	ug/l	102	103	80-120	1	30
Bromochloromethane	5	U	5.	1	ug/l	101	101	80-121	0	30
Bromodichloromethane	1	U	1.	0.5	ug/l	97	97	73-120	0	30
Bromoform	4	U	4.	0.5	ug/l	91	90	61-120	1	30
Bromomethane	1	U	1.	0.5	ug/l	92	95	58-120	3	30
2-Butanone	10	U	10.	3	ug/l	95	96	54-133	1	30
t-Butyl alcohol	50	U	50.	5	ug/l	115	113	75-120	2	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1482333
Reported: 07/07/14 at 12:29 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
n-Butylbenzene	5	U	5.	1	ug/l	106	107	68-120	1	30
sec-Butylbenzene	5	U	5.	1	ug/l	108	109	80-120	1	30
tert-Butylbenzene	5	U	5.	1	ug/l	104	106	73-120	2	30
Carbon Disulfide	5	U	5.	1	ug/l	86	90	58-126	4	30
Carbon Tetrachloride	1	U	1.	0.5	ug/l	100	103	74-130	3	30
Chlorobenzene	1	U	1.	0.5	ug/l	102	105	80-120	2	30
Chloroethane	1	U	1.	0.5	ug/l	87	87	56-120	0	30
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/l	101	103	54-126	2	30
Chloroform	1	U	1.	0.5	ug/l	103	104	80-122	1	30
1-Chlorohexane	5	U	5.	1	ug/l	104	107	80-120	3	30
Chloromethane	1	U	1.	0.5	ug/l	104	97	63-120	7	30
2-Chlorotoluene	5	U	5.	1	ug/l	102	102	80-120	1	30
4-Chlorotoluene	5	U	5.	1	ug/l	101	102	80-120	1	30
Chlorotrifluoroethene	5	U	5.	2	ug/l	85	82	47-120	4	30
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/l	98	99	56-120	0	30
Dibromochloromethane	1	U	1.	0.5	ug/l	91	92	72-120	1	30
1,2-Dibromoethane	1	U	1.	0.5	ug/l	105	107	76-120	2	30
Dibromomethane	1	U	1.	0.5	ug/l	103	102	80-120	1	30
1,2-Dichlorobenzene	5	U	5.	1	ug/l	102	102	80-120	0	30
1,3-Dichlorobenzene	5	U	5.	1	ug/l	102	102	80-120	1	30
1,4-Dichlorobenzene	5	U	5.	1	ug/l	101	103	80-120	2	30
Dichlorodifluoromethane	1	U	1.	0.5	ug/l	85	84	48-132	1	30
1,1-Dichloroethane	1	U	1.	0.5	ug/l	103	105	80-120	2	30
1,2-Dichloroethane	1	U	1.	0.5	ug/l	105	105	65-135	0	30
1,1-Dichloroethene	1	U	1.	0.5	ug/l	94	98	76-124	4	30
cis-1,2-Dichloroethene	1	U	1.	0.5	ug/l	105	107	80-120	2	30
trans-1,2-Dichloroethene	1	U	1.	0.5	ug/l	103	106	80-120	3	30
1,2-Dichloropropane	1	U	1.	0.5	ug/l	101	102	80-120	1	30
1,3-Dichloropropane	1	U	1.	0.5	ug/l	101	104	80-120	3	30
2,2-Dichloropropane	1	U	1.	0.5	ug/l	103	106	67-124	3	30
1,1-Dichloropropene	5	U	5.	1	ug/l	106	107	80-120	0	30
cis-1,3-Dichloropropene	1	U	1.	0.5	ug/l	98	99	80-120	1	30
trans-1,3-Dichloropropene	1	U	1.	0.5	ug/l	100	100	76-120	1	30
Ethyl t-butyl ether	1	U	1.	0.5	ug/l	102	102	74-120	0	30
Ethylbenzene	1	U	1.	0.5	ug/l	101	102	79-120	1	30
Freon 113	10	U	10.	2	ug/l	82	85	67-127	4	30
Freon 133a	5	U	5.	2	ug/l	115	116	46-152	1	30
Hexachlorobutadiene	5	U	5.	2	ug/l	101	100	51-125	1	30
2-Hexanone	10	U	10.	3	ug/l	96	97	44-126	1	30
di-Isopropyl ether	1	U	1.	0.5	ug/l	104	104	65-120	0	30
Isopropylbenzene	5	U	5.	1	ug/l	103	104	77-120	1	30
p-Isopropyltoluene	5	U	5.	1	ug/l	105	106	80-120	1	30
Methyl Iodide	1	U	1.	0.5	ug/l	106	106	75-128	0	30
Methyl Tertiary Butyl Ether	1	U	1.	0.5	ug/l	99	101	75-120	2	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	97	98	51-124	1	30
Methylene Chloride	3	U	3.	2	ug/l	93	95	80-120	2	30
n-Propylbenzene	5	U	5.	1	ug/l	106	107	80-120	2	30
Styrene	5	U	5.	1	ug/l	101	103	80-120	2	30
1,1,1,2-Tetrachloroethane	1	U	1.	0.5	ug/l	100	103	80-120	2	30
1,1,2,2-Tetrachloroethane	1	U	1.	0.5	ug/l	102	104	70-120	2	30
Tetrachloroethene	1	U	1.	0.5	ug/l	101	104	80-120	3	30
Toluene	1	U	1.	0.5	ug/l	104	106	80-120	2	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	100	100	58-126	1	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	103	104	65-120	2	30
1,1,1-Trichloroethane	1	U	1.	0.5	ug/l	99	99	66-126	0	30
1,1,2-Trichloroethane	1	U	1.	0.5	ug/l	103	104	80-120	0	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1482333
Reported: 07/07/14 at 12:29 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Trichloroethene	1	U	1.	0.5	ug/l	105	106	80-120	1	30
Trichlorofluoromethane	1	U	1.	0.5	ug/l	86	90	65-130	4	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	102	104	76-120	2	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	104	106	74-120	1	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	106	106	74-120	0	30
Vinyl Acetate	10	U	10.	2	ug/l	81	72	56-135	11	30
Vinyl Chloride	1	U	1.	0.5	ug/l	102	95	63-120	7	30
m+p-Xylene	1	U	1.	0.5	ug/l	101	102	80-120	1	30
o-Xylene	1	U	1.	0.5	ug/l	101	103	80-120	1	30
Batch number: 14169SLA026	Sample number(s): 7501187-7501190,7501192-7501196									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	111		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	105		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	105		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	113		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	104		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	112		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	97		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	100		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	109		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	100		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	100		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	114*		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	103		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	107		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	107		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	101		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	114		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	115		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	100		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	106		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	108		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	104		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	109		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	100		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	105		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	103		80-119		
Batch number: 14170A16A	Sample number(s): 7501188-7501190,7501193-7501194,7501196									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	82		67-120		
Batch number: 14170B94A	Sample number(s): 7501186									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	94	93	80-133	1	30
Batch number: 141720009A	Sample number(s): 7501188-7501190,7501194									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	96	98	36-106	2	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	101		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	106		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1482333
Reported: 07/07/14 at 12:29 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141750017A	Sample number(s): 7501187									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	93	94	36-106	1	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	107		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	110		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141700025A	Sample number(s): 7501188-7501190,7501192-7501194,7501196									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	98		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	100		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	98		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	62		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	84		60-115		
Batch number: 141700026A	Sample number(s): 7501195									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	22*		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	21*		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	21*		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	15*		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	21*		60-115		
Batch number: 141770026A	Sample number(s): 7501187-7501190,7501192-7501194,7501196									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	92		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	94		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	95		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	95		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	74		60-115		
Batch number: 141770027A	Sample number(s): 7501187,7501195									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	87		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	88		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	87		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	86		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	76		60-115		
Batch number: 141680637002	Sample number(s): 7501187-7501191,7501194									
Aluminum	10.0	J	40.0	7.21	mg/kg	107		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	105		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	105		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	102		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	102		80-120		
Boron	1.76	J	10.0	0.840	mg/kg	99		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	103		80-120		
Calcium	24.6		20.0	3.34	mg/kg	105		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	103		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	105		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	103		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1482333
Reported: 07/07/14 at 12:29 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Iron	40.0	U	40.0	3.62	mg/kg	104		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	108		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	101		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	103		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	102		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	102		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	108		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	104		80-120		
Potassium	100	U	100.	8.34	mg/kg	99		80-120		
Sodium	100	U	100.	16.7	mg/kg	101		80-120		
Tin	1.46	J	10.0	0.220	mg/kg	101		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	104		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	104		80-120		
Zinc	0.386	J	4.00	0.200	mg/kg	103		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	102		80-120		
Batch number: 141680637002A	Sample number(s): 7501187-7501191,7501194									
Silver	0.200	U	0.200	0.0260	mg/kg	103		80-120		
Strontium	0.134	J	0.400	0.0680	mg/kg	100		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	102		80-120		
Batch number: 141680637002B	Sample number(s): 7501187-7501191,7501194									
Selenium	0.400	U	0.400	0.100	mg/kg	103		80-120		
Batch number: 141680638002	Sample number(s): 7501187-7501191,7501194									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	85		85-120		
Batch number: 14168039402A	Sample number(s): 7501187-7501188,7501191,7501194									
15a pH by 9045D						100		95-105		
Batch number: 14174162401A	Sample number(s): 7501187-7501196									
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14170002	Sample number(s): 7501187-7501190,7501193-7501194,7501196									
2378-TCDD	0.0713	J	1.00	0.0557	ng/kg	96		67-158		
12378-PeCDD	0.0524	J	5.00	0.0333	ng/kg	99		70-142		
123478-HxCDD	5.00	U	5.00	0.0206	ng/kg	101		70-164		
123678-HxCDD	0.0329	J	5.00	0.0216	ng/kg	100		76-134		
123789-HxCDD	0.0404	J	5.00	0.0203	ng/kg	100		64-162		
1234678-HpCDD	0.0853	J	5.00	0.0200	ng/kg	98		70-140		
OCDD	0.231	J	10.0	0.0236	ng/kg	95		78-144		
2378-TCDF	1.00	U	1.00	0.0436	ng/kg	110		75-158		
12378-PeCDF	0.0517	J	5.00	0.0163	ng/kg	100		80-134		
23478-PeCDF	0.0235	J	5.00	0.0164	ng/kg	100		68-160		
123478-HxCDF	0.0457	J	5.00	0.0174	ng/kg	102		72-134		
123678-HxCDF	0.0297	J	5.00	0.0163	ng/kg	100		84-130		
123789-HxCDF	5.00	U	5.00	0.0154	ng/kg	98		78-130		
234678-HxCDF	0.0358	J	5.00	0.0170	ng/kg	100		70-156		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1482333
Reported: 07/07/14 at 12:29 PM

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
1234678-HpCDF	0.0561 J	5.00	0.00619	ng/kg	96		82-122		
1234789-HpCDF	0.0335 J	5.00	0.00942	ng/kg	99		78-138		
OCDF	0.165 J	10.0	0.0311	ng/kg	98		63-170		
TEQ WHO 2005 - EDLx0.0	0.0000690			ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: B141761AA	Sample number(s): 7501188-7501190,7501194 UNSPK: 7501188								
Acetone	96	105	31-195	9	30				
Acrolein	51	54	10-165	6	30				
Acrylonitrile	74	88	48-139	17	30				
t-Amyl methyl ether	99	109	50-132	10	30				
Benzene	105	118	55-143	12	30				
Bromobenzene	77	106	43-139	32*	30				
Bromochloromethane	99	111	60-137	12	30				
Bromodichloromethane	89	103	53-136	15	30				
Bromoform	70	84	50-144	19	30				
Bromomethane	75	80	42-168	7	30				
2-Butanone	86	93	37-163	8	30				
t-Butyl alcohol	104	121	47-153	15	30				
n-Butylbenzene	59	102	30-146	54*	30				
sec-Butylbenzene	73	117	33-157	46*	30				
tert-Butylbenzene	82	122	41-152	39*	30				
Carbon Disulfide	92	98	48-146	7	30				
Carbon Tetrachloride	96	111	51-165	15	30				
Chlorobenzene	88	112	49-135	24	30				
Chloroethane	70	76	39-152	7	30				
2-Chloroethyl Vinyl Ether	82	87	32-139	7	30				
Chloroform	108	119	61-142	9	30				
1-Chlorohexane	83	115	70-130	33*	30				
Chloromethane	107	112	36-143	5	30				
2-Chlorotoluene	77	111	42-146	37*	30				
4-Chlorotoluene	73	108	39-145	38*	30				
Chlorotrifluoroethene	108	104	70-130	3	30				
1,2-Dibromo-3-chloropropane	67	85	34-165	24	30				
Dibromochloromethane	80	99	51-128	21	30				
1,2-Dibromoethane	98	112	54-129	14	30				
Dibromomethane	98	108	57-130	11	30				
1,2-Dichlorobenzene	65	95	36-133	37*	30				
1,3-Dichlorobenzene	63	94	34-134	40*	30				
1,4-Dichlorobenzene	63	95	35-136	41*	30				
Dichlorodifluoromethane	110	116	26-151	5	30				
1,1-Dichloroethane	111	122	63-142	10	30				
1,2-Dichloroethane	105	116	54-143	10	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1482333
Reported: 07/07/14 at 12:29 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
1,1-Dichloroethene	116	124	61-149	6	30				
cis-1,2-Dichloroethene	108	120	67-135	10	30				
trans-1,2-Dichloroethene	115	129	64-144	12	30				
1,2-Dichloropropane	104	118	54-144	12	30				
1,3-Dichloropropane	100	116	51-140	15	30				
2,2-Dichloropropane	105	116	53-147	10	30				
1,1-Dichloropropene	111	125	54-145	12	30				
cis-1,3-Dichloropropene	91	105	45-137	14	30				
trans-1,3-Dichloropropene	89	106	51-134	18	30				
Ethyl t-butyl ether	104	114	58-124	10	30				
Ethylbenzene	91	119	44-141	26	30				
Freon 113	109	116	56-156	6	30				
Freon 133a	124	124	61-131	2	30				
Hexachlorobutadiene	42	78	10-155	59*	30				
2-Hexanone	91	101	32-160	10	30				
di-Isopropyl ether	112	123	59-133	9	30				
Isopropylbenzene	86	120	38-144	34*	30				
p-Isopropyltoluene	66	108	29-152	48*	30				
Methyl Iodide	109	116	52-139	6	30				
Methyl Tertiary Butyl Ether	104	115	55-129	10	30				
4-Methyl-2-pentanone	94	101	46-139	7	30				
Methylene Chloride	109	121	60-149	10	30				
n-Propylbenzene	79	120	39-157	41*	30				
Styrene	80	106	35-134	28	30				
1,1,1,2-Tetrachloroethane	86	108	55-139	22	30				
1,1,2,2-Tetrachloroethane	89	108	29-182	19	30				
Tetrachloroethene	94	118	42-149	23	30				
Toluene	101	122	50-146	20	30				
1,2,3-Trichlorobenzene	36	54	10-140	40*	30				
1,2,4-Trichlorobenzene	38	60	10-136	44*	30				
1,1,1-Trichloroethane	94	103	52-146	10	30				
1,1,2-Trichloroethane	101	116	58-152	13	30				
Trichloroethene	103	118	53-144	14	30				
Trichlorofluoromethane	105	113	47-163	7	30				
1,2,3-Trichloropropane	96	113	36-180	16	30				
1,2,4-Trimethylbenzene	73	110	37-149	41*	30				
1,3,5-Trimethylbenzene	78	119	38-150	41*	30				
Vinyl Acetate	11*	13*	21-139	17	30				
Vinyl Chloride	113	119	50-154	5	30				
m+p-Xylene	89	117	44-137	28	30				
o-Xylene	88	115	42-137	26	30				
Batch number: E141761AA	Sample number(s): 7501188-7501190,7501194 UNSPK: 7501188								
1,4-Dioxane	87	96	70-130	13	30				
Batch number: 14169SLA026	Sample number(s): 7501187-7501190,7501192-7501196 UNSPK: 7501188								
Acenaphthene	90	91	48-127	3	30				
Acenaphthylene	90	90	60-128	1	30				
Anthracene	92	93	52-126	2	30				
Benzo(a)anthracene	98	103	44-143	7	30				
Benzo(a)pyrene	86	88	49-137	3	30				
Benzo(b)fluoranthene	112	121	26-142	8	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1482333
Reported: 07/07/14 at 12:29 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Benzo(e)pyrene	87	89	63-111	4	30				
Benzo(g,h,i)perylene	47	43	33-141	8	30				
Benzo(k)fluoranthene	96	98	49-144	3	30				
Butylbenzylphthalate	95	92	64-156	3	30				
Di-n-butylphthalate	91	91	52-147	1	30				
Chrysene	94	104	43-141	11	30				
Dibenz(a,h)anthracene	57	54	25-145	5	30				
Diethylphthalate	89	90	66-140	2	30				
Dimethylphthalate	89	89	70-123	1	30				
Bis(2-Ethylhexyl)phthalate	96	408*	48-164	125*	30				
Fluoranthene	103	129	38-153	23	30				
Fluorene	93	94	57-130	3	30				
Indeno(1,2,3-cd)pyrene	54	51	26-139	5	30				
1-Methylnaphthalene	90	91	59-139	2	30				
2-Methylnaphthalene	92	94	46-147	4	30				
Naphthalene	88	90	52-136	4	30				
N-Nitrosodimethylamine	86	91	39-134	7	30				
Di-n-octylphthalate	126	132	52-162	6	30				
Phenanthrene	92	106	50-137	15	30				
Pyrene	88	109	26-143	23	30				
Batch number: 14170A16A	Sample number(s): 7501188-7501190,7501193-7501194,7501196 UNSPK: 7501188								
11a TPH by EPA 8015B GRO	75	77	69-123	1	30				
Batch number: 141720009A	Sample number(s): 7501188-7501190,7501194 UNSPK: 7501188								
PCB-1016	99	104	41-135	5	50				
PCB-1260	102	112	40-134	10	50				
Batch number: 141750017A	Sample number(s): 7501187 UNSPK: 7501187								
PCB-1016	86	100	41-135	15	50				
PCB-1260	88	109	40-134	20	50				
Batch number: 141700025A	Sample number(s): 7501188-7501190,7501192-7501194,7501196 UNSPK: 7501188								
EFH (C12-C14)	107	126*	49-123	16	20				
EFH (C15-C20)	127*	137*	49-123	7	20				
EFH (C21-C30)	-71*	-43*	49-123	14	20				
EFH (C30-C40)	-318 (2)	-264 (2)	49-123	21*	20				
EFH (C8-C11)	87	91	49-123	3	20				
Batch number: 141700026A	Sample number(s): 7501195 UNSPK: P501188								
EFH C12-C14 w/ SiGel	83	85	49-123	2	20				
EFH C15-C20 w/ SiGel	80	77	49-123	5	20				
EFH C21-C30 w/ SiGel	3*	4*	49-123	1	20				
EFH C30-C40 w/ SiGel	-67*	-85*	49-123	13	20				
EFH C8-C11 w/ SiGel	67	62	49-123	9	20				
Batch number: 141770026A	Sample number(s): 7501187-7501190,7501192-7501194,7501196 UNSPK: 7501188								
EFH C12-C14 w/ SiGel	82	88	49-123	8	20				
EFH C15-C20 w/ SiGel	78	81	49-123	4	20				
EFH C21-C30 w/ SiGel	-82*	-58*	49-123	19	20				
EFH C30-C40 w/ SiGel	-262	-217	49-123	22*	20				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1482333
Reported: 07/07/14 at 12:29 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
EFH C8-C11 w/ SiGel	58	63	49-123	9	20				
Batch number: 141770027A	Sample number(s): 7501187,7501195 UNSPK: P502707								
EFH (C12-C14)	90	91	49-123	0	20				
EFH (C15-C20)	89	102	49-123	10	20				
EFH (C21-C30)	112	153*	49-123	16	20				
EFH (C30-C40)	135*	250*	49-123	26*	20				
EFH (C8-C11)	77	79	49-123	3	20				
Batch number: 141680637002	Sample number(s): 7501187-7501191,7501194 UNSPK: 7501188 BKG: 7501188								
Aluminum	1032 (2)	806 (2)	75-125	3	20	15,000	15,000	0	20
Antimony	47*	49*	75-125	3	20	3.92 U	3.96 U	0 (1)	20
Arsenic	98	98	75-125	1	20	5.68	5.34	6 (1)	20
Barium	94	88	75-125	5	20	104	107	3	20
Beryllium	102	102	75-125	2	20	0.566 J	0.570 J	1 (1)	20
Boron	98	97	75-125	2	20	4.31 J	4.09 J	5 (1)	20
Cadmium	93	93	75-125	2	20	0.980 U	0.990 U	0 (1)	20
Calcium	150 (2)	103 (2)	75-125	7	20	2,210	2,360	7	20
Chromium	112	94	75-125	10	20	19.0	20.0	5	20
Cobalt	95	95	75-125	2	20	4.78	4.98	4 (1)	20
Copper	102	95	75-125	7	20	11.5	11.7	1	20
Iron	-493 (2)	-449 (2)	75-125	0	20	18,800	18,800	0	20
Lead	132*	84	75-125	28*	20	10.4	7.96	26* (1)	20
Lithium	103	108	75-125	2	20	20.1	18.9	6 (1)	20
Magnesium	95 (2)	21 (2)	75-125	4	20	4,030	4,040	0	20
Manganese	73 (2)	41 (2)	75-125	5	20	313	332	6	20
Molybdenum	95	95	75-125	2	20	0.404 J	0.410 J	1 (1)	20
Nickel	97	94	75-125	4	20	12.8	12.4	3	20
Phosphorus	92 (2)	151 (2)	75-125	10	20	424	434	2	20
Potassium	124	122	75-125	1	20	3,560	3,680	3	20
Sodium	103	105	75-125	0	20	76.0 J	72.5 J	5 (1)	20
Tin	89	89	75-125	2	20	2.54 J	2.52 J	1 (1)	20
Titanium	244 (2)	196 (2)	75-125	4	20	1,040	1,040	0	20
Vanadium	102	96	75-125	4	20	35.0	33.9	3	20
Zinc	95	93	75-125	2	20	57.1	56.0	2	20
Zirconium	97	99	75-125	0	20	2.95 J	3.36 J	13 (1)	20
Batch number: 141680637002A	Sample number(s): 7501187-7501191,7501194 UNSPK: 7501188 BKG: 7501188								
Silver	128*	128*	75-125	2	20	0.0414 J	0.0323 J	25* (1)	20
Strontium	148*	71*	75-125	21*	20	22.0	23.1	5	20
Thallium	125	115	75-125	6	20	0.266	0.255	4 (1)	20
Batch number: 141680637002B	Sample number(s): 7501187-7501191,7501194 UNSPK: 7501188 BKG: 7501188								
Selenium	116	116	75-125	1	20	0.265 J	0.259 J	2 (1)	20
Batch number: 141680638002	Sample number(s): 7501187-7501191,7501194 UNSPK: 7501188 BKG: 7501188								
3a Mercury 7471A	89	86	65-135	1	20	0.0200	0.0182	10 (1)	20
Batch number: 14168039402A	Sample number(s): 7501187-7501188,7501191,7501194 BKG: 7501188								

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1482333
Reported: 07/07/14 at 12:29 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
15a pH by 9045D						6.11	6.13	0	3
Batch number: 14174162401A	Sample number(s): 7501187-7501196 BKG: 7501188								
14a Moisture Content by 160.3						2.7	2.6	2	20
14a Moisture Content by 160.3						2.7	2.6	2	20
14a Moisture Content by 160.3						2.7	2.6	2	20
Batch number: 14170002	Sample number(s): 7501187-7501190,7501193-7501194,7501196 UNSPK: 7501188								
2378-TCDD	99	96	40-135	2	20				
12378-PeCDD	103	104	40-135	2	20				
123478-HxCDD	102	101	40-135	0	20				
123678-HxCDD	100	101	40-135	2	20				
123789-HxCDD	100	101	40-135	1	20				
1234678-HpCDD	111	119	40-135	6	20				
OCDD	232 (2)	210 (2)	40-135	3	20				
2378-TCDF	102	104	40-135	2	20				
12378-PeCDF	101	100	40-135	0	20				
23478-PeCDF	101	103	40-135	2	20				
123478-HxCDF	101	103	40-135	3	20				
123678-HxCDF	98	101	40-135	3	20				
123789-HxCDF	100	101	40-135	2	20				
234678-HxCDF	101	102	40-135	1	20				
1234678-HpCDF	100	102	40-135	3	20				
1234789-HpCDF	98	99	40-135	2	20				
OCDF	100	102	40-135	2	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 12a Volatile Organics EPA8260B
Batch number: B141761AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7501188	100	101	102	93
7501189	100	106	102	97
7501190	101	105	104	96
7501194	100	100	104	91
Blank	100	106	100	97
LCS	100	101	102	99
MS	100	106	102	97
MSD	101	105	104	96
Limits:	80-120	80-120	81-117	74-121

Analysis Name: 13b 1,4-Dioxane by 8260B SIM
Batch number: E141682AA

	Toluene-d8

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1482333
Reported: 07/07/14 at 12:29 PM

Surrogate Quality Control

7501186	99
Blank	98
LCS	99
LCSD	99
Limits:	80-120

Analysis Name: 13a 1,4-Dioxane by 8260B SIM
Batch number: E141761AA

	Toluene-d8
7501188	47*
7501189	47*
7501190	48*
7501194	45*
Blank	108
LCS	107
MS	47*
MSD	48*
Limits:	70-130

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141701AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7501186	101	103	99	97
Blank	99	102	99	97
LCS	100	102	100	100
LCSD	99	102	101	100
Limits:	86-118	80-120	88-110	86-115

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14169SLA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7501187	103	108	92
7501188	93	93	81
7501189	100	100	86
7501190	93	94	83
7501192	108	106	101
7501193	99	102	90
7501194	83	76	76
7501195	104	104	93
7501196	95	100	85
Blank	103	107	90
LCS	104	109	94
MS	100	100	86
MSD	93	94	83
Limits:	59-115	61-118	70-127

Analysis Name: 11a TPH by EPA 8015B GRO

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1482333
Reported: 07/07/14 at 12:29 PM

Surrogate Quality Control

Batch number: 14170A16A

	Trifluorotoluene-F
7501188	91
7501189	91
7501190	89
7501193	85
7501194	92
7501196	88
Blank	98
LCS	101
MS	91
MSD	89
Limits:	50-142

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14170B94A

	Trifluorotoluene-F
7501186	79
Blank	82
LCS	93
LCSD	91
Limits:	63-135

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141720009A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7501188	120	110
7501189	122*	105
7501190	124*	114
7501194	122*	116
Blank	120	109
LCS	120	107
LCSD	131*	129*
MS	122*	105
MSD	124*	114
Limits:	45-120	45-120

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141750017A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7501187	120	100
Blank	125*	106
LCS	122*	110
LCSD	121*	112
MS	100	93
MSD	118	107
Limits:	45-120	45-120

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1482333
Reported: 07/07/14 at 12:29 PM

Surrogate Quality Control

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141700025A

	Chlorobenzene	Orthoterphenyl
7501188	90	91
7501189	79	95
7501190	98	104
7501192	83	87
7501193	78	96
7501194	77	95
7501196	83	98
Blank	73	89
LCS	79	97
MS	79	95
MSD	98	104
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141700026A

	Chlorobenzene	Orthoterphenyl
7501195	70	80
Blank	49	56*
LCS	24*	21*
MS	69	76
MSD	61	70
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141770026A

	Chlorobenzene	Orthoterphenyl
7501187	72	78
7501188	71	79
7501189	69	78
7501190	74	80
7501192	76	85
7501193	70	77
7501194	70	77
7501196	77	83
Blank	69	74
LCS	88	96
MS	69	78
MSD	74	80
Limits:	37-125	66-123

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141770027A

	Chlorobenzene	Orthoterphenyl
7501187	88	88
7501195	71	85
Blank	75	88

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1482333
Reported: 07/07/14 at 12:29 PM

Surrogate Quality Control

LCS	76	90
MS	72	82
MSD	71	81
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 14170002

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7501187	72	72	73	76	77	74
7501188	71	78	81	84	85	82
7501189	80	82	85	84	87	85
7501190	80	81	83	84	87	81
7501193	59	75	79	82	83	75
7501194	78	82	83	86	87	86
7501196	61	77	79	82	83	79
Blank	77	81	85	87	87	77
MS	80	82	85	84	87	85
MSD	80	81	83	84	87	81
OPR	72	83	85	87	87	86
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7501187	71	72	81	78	75	81
7501188	79	71	86	82	82	91
7501189	85	86	90	89	87	95
7501190	78	79	91	84	82	92
7501193	65	59	79	76	75	86
7501194	84	77	93	86	86	91
7501196	73	59	82	79	75	88
Blank	62	76	89	84	87	95
MS	85	86	90	89	87	95
MSD	78	79	91	84	82	92
OPR	80	68	88	83	81	93
Limits:	17-157	24-169	24-185	21-178	26-152	26-123

	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF
7501187	78	83	91	70	66
7501188	86	84	99	75	71
7501189	90	92	94	85	82
7501190	86	85	100	76	68
7501193	81	82	99	65	54
7501194	88	114	109	80	70
7501196	81	77	102	70	61
Blank	89	105	98	71	58
MS	90	92	94	85	82
MSD	86	85	100	76	68
OPR	87	96	110	76	70
Limits:	28-136	29-147	28-143	26-138	17-157

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1482333
Reported: 07/07/14 at 12:29 PM

Surrogate Quality Control

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/16/2014
CarrierName: FedEx
AirbillNo: 770318721323

A-13013
G-1482333
S-7501186-96

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140616-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
TB-061614	6/16/14 08:00	WQ	HCl	9 - 40 mL Vial	10 day																		X	X	X																
FDG2-SL-875-SA5A-SB-0.0-0.5	6/16/14 08:20	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X								X														
FDG2-SL-875-SA5A-SB-2.0-3.0MS	6/16/14 08:45	SO	None	6 - 16 oz glass	10 day	X	X					X		X	X			X								X														MS/MSD
FDG2-SL-875-SA5A-SB-2.0-3.0MS	6/16/14 08:45	SO	None	24 - Encore	10 day																		X	X	X															MS/MSD
FDG2-SL-876-SA5A-SB-0.0-0.5	6/16/14 09:15	SO	None	1 - 16 oz glass	10 day							X														X														
FDG2-SL-876-SA5A-SB-4.0-5.0	6/16/14 09:45	SO	None	1 - 16 oz glass	10 day							X		X												X														
FDG2-SL-876-SA5A-SB-4.0-5.0	6/16/14 09:45	SO	None	2 - Encore	10 day																				X															
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/14 08:50	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X			X								X														
FDG2-SL-1175-SA5A-SB-2.0-3.0	6/16/14 08:50	SO	None	8 - Encore	10 day																		X	X	X															
FDG2-SL-877-SA5A-SB-0.0-0.5	6/16/14 10:55	SO	None	1 - 16 oz glass	10 day							X														X														
FDG2-SL-877-SA5A-SB-3.0-4.0	6/16/14 11:10	SO	None	1 - 16 oz glass	10 day							X		X												X														
FDG2-SL-877-SA5A-SB-3.0-4.0	6/16/14 11:10	SO	None	2 - Encore	10 day																				X															

For all EFH, silica gel cleanup required on half the extract. Analyze both extracts for EFH.

Special Instructions:

Sampler: Sandy Do

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[signature]	06/16/14	1600									
										6/17/14	0915

Final Data Gap 1 of 1

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Sample Administration Receipt Documentation Log

Doc Log ID: 17547

Group Number(s): 1482333

Client: CDM Smith

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	06/17/2014 9:15
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	9
Custody Seal Present:	Yes	Trip Blank Type:	HCL
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	N/A		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Joseph Gruber (5200) at 09:56 on 06/17/2014

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT131	3.7	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

eurofins | Lancaster Laboratories Environmental

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

July 07, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 06/18/2014
Group Number: 1482731
SDG: PH235
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
FDG2-SL-567-NBZ-SB-0.0-0.5 Soil	7502707
FDG2-SL-568-NBZ-SB-0.0-0.5 Soil	7502708
FDG2-SL-572-NBZ-SB-0.0-0.5 Soil	7502709

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: FDG2-SL-567-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7502707
LL Group # 1482731
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/17/2014 08:55 by SD

Submitted: 06/18/2014 10:05
Reported: 07/07/2014 12:31

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

567-- SDG#: PH235-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	0.75	J	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	0.69	J	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	2.3		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	4.8		1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	1.9		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	6.4	J	18	6.1	1
12969	Fluoranthene	206-44-0	1.7	J	1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	0.71	J	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	0.69	J	1.7	0.68	1
12969	Naphthalene	91-20-3	1.0	J	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	1.4	J	1.7	0.68	1
12969	Pyrene	129-00-0	1.5	J	1.7	0.68	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.1	1
13099	PCB-1232	11141-16-5	17	U	17	4.1	1
13099	PCB-1242	53469-21-9	17	U	17	4.1	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	17	U	17	4.4	1
13099	PCB-1260	11096-82-5	17	U	17	3.9	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
	For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	2.4	J	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	16		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	37		10	4.1	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-567-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7502707
LL Group # 1482731
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/17/2014 08:55 by SD

Submitted: 06/18/2014 10:05
Reported: 07/07/2014 12:31

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

567-- SDG#: PH235-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	3.1	J	5.1	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	10	U	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.0	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,200		40.7	4.61	1
06944	Antimony	7440-36-0	4.07	U	4.07	0.335	1
06935	Arsenic	7440-38-2	6.95		4.07	0.650	1
06946	Barium	7440-39-3	91.9		1.02	0.0335	1
06947	Beryllium	7440-41-7	0.548	J	1.02	0.0681	1
07914	Boron	7440-42-8	3.75	J	10.2	0.854	1
06949	Cadmium	7440-43-9	1.02	U	1.02	0.0335	1
01650	Calcium	7440-70-2	5,720		20.3	3.85	1
06951	Chromium	7440-47-3	14.3		3.05	0.112	1
06952	Cobalt	7440-48-4	6.34		1.02	0.0976	1
06953	Copper	7440-50-8	10.9		2.03	0.335	1
01654	Iron	7439-89-6	19,500		40.7	3.39	1
06955	Lead	7439-92-1	13.9		3.05	0.508	1
01656	Lithium	7439-93-2	22.9		4.1	0.65	1
01657	Magnesium	7439-95-4	4,250		10.2	1.70	1
06958	Manganese	7439-96-5	346		1.02	0.0843	1
06960	Molybdenum	7439-98-7	0.671	J	2.03	0.173	1
06961	Nickel	7440-02-0	8.77		2.03	0.152	1
10145	Phosphorus	7723-14-0	409		10.2	0.325	1
01662	Potassium	7440-09-7	3,630		102	13.2	1
01667	Sodium	7440-23-5	66.8	J	102	17.0	1
06969	Tin	7440-31-5	3.48	J	10.2	0.437	1
06970	Titanium	7440-32-6	909		1.02	0.173	1
06971	Vanadium	7440-62-2	30.1		1.02	0.0925	1
06972	Zinc	7440-66-6	57.9		4.07	0.264	1
10146	Zirconium	7440-67-7	2.16	J	5.08	0.823	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.200	J	0.407	0.102	2
06142	Silver	7440-22-4	0.0264	J	0.203	0.0203	2
06144	Strontium	7440-24-6	34.9		0.407	0.0581	2
06145	Thallium	7440-28-0	0.284		0.203	0.0305	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0297		0.0160	0.0096	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.73		0.0100	0.0100	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-567-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7502707
LL Group # 1482731
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/17/2014 08:55 by SD

Submitted: 06/18/2014 10:05
Reported: 07/07/2014 12:31

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

567-- SDG#: PH235-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
	The pH was measured in water at 23.3 C.					
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	1.6	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14174SLA026	06/24/2014 06:05	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	14174SLA026	06/23/2014 14:40	Kelli M Barto	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141720009A	06/23/2014 22:23	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141720009A	06/23/2014 05:30	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141770027A	06/27/2014 20:51	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141770026A	06/30/2014 17:49	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	2	141770026A	06/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	2	141770027A	06/27/2014 11:00	William H Saadeh	1
01643	Aluminum	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1
06944	Antimony	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1
06935	Arsenic	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1
06946	Barium	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1
06947	Beryllium	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1
07914	Boron	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1
06949	Cadmium	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1
01650	Calcium	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1
06951	Chromium	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1
06952	Cobalt	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1
06953	Copper	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1
01654	Iron	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1
06955	Lead	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1
01656	Lithium	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1
01657	Magnesium	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1
06958	Manganese	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-567-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7502707
LL Group # 1482731
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/17/2014 08:55 by SD

Submitted: 06/18/2014 10:05
Reported: 07/07/2014 12:31

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

567-- SDG#: PH235-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06960	Molybdenum	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1
06961	Nickel	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1
10145	Phosphorus	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1
01662	Potassium	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1
01667	Sodium	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1
06969	Tin	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1
06970	Titanium	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1
06971	Vanadium	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1
06972	Zinc	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1
10146	Zirconium	SW-846 6010C	1	141750637001	06/25/2014 20:03	John P Hook	1
06141	Selenium	SW-846 6020A	1	141750637001B	06/25/2014 05:56	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141750637001A	06/25/2014 05:56	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141750637001A	06/25/2014 05:56	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141750637001A	06/25/2014 05:56	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141780638002	06/30/2014 10:41	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141750637001	06/24/2014 07:40	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141780638002	06/29/2014 12:35	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14169039401A	06/18/2014 21:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14174162401A	06/23/2014 20:06	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-568-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7502708
LL Group # 1482731
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/17/2014 07:55 by SD

Submitted: 06/18/2014 10:05
Reported: 07/07/2014 12:31

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

568-- SDG#: PH235-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	18	U	18	7.0	10
12969	Acenaphthylene	208-96-8	18	U	18	3.5	10
12969	Anthracene	120-12-7	18	U	18	3.5	10
12969	Benzo(a)anthracene	56-55-3	18	U	18	7.0	10
12969	Benzo(a)pyrene	50-32-8	18	U	18	7.0	10
12969	Benzo(b)fluoranthene	205-99-2	9.8	J	18	7.0	10
12969	Benzo(e)pyrene	192-97-2	180	U	180	35	10
12969	Benzo(g,h,i)perylene	191-24-2	18	U	18	7.0	10
12969	Benzo(k)fluoranthene	207-08-9	13	J	18	7.0	10
12969	Butylbenzylphthalate	85-68-7	190	U	190	63	10
12969	Di-n-butylphthalate	84-74-2	190	U	190	63	10
12969	Chrysene	218-01-9	18		18	3.5	10
12969	Dibenz(a,h)anthracene	53-70-3	18	U	18	7.0	10
12969	Diethylphthalate	84-66-2	190	U	190	63	10
12969	Dimethylphthalate	131-11-3	190	U	190	63	10
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	190	U	190	63	10
12969	Fluoranthene	206-44-0	17	J	18	7.0	10
12969	Fluorene	86-73-7	18	U	18	7.0	10
12969	Indeno(1,2,3-cd)pyrene	193-39-5	18	U	18	7.0	10
12969	1-Methylnaphthalene	90-12-0	25		18	7.0	10
12969	2-Methylnaphthalene	91-57-6	26		18	7.0	10
12969	Naphthalene	91-20-3	70		18	7.0	10
12969	N-Nitrosodimethylamine	62-75-9	18	U	18	7.0	10
12969	Di-n-octylphthalate	117-84-0	190	U	190	63	10
12969	Phenanthrene	85-01-8	48		18	7.0	10
12969	Pyrene	129-00-0	16	J	18	7.0	10
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	8.0	J	18	4.7	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
	For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	26	U	26	11	5
12952	EFH (C15-C20)	n.a.	27		26	11	5
12952	EFH (C21-C30)	n.a.	130		26	11	5
12952	EFH (C30-C40)	n.a.	260		53	21	5

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-568-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7502708
LL Group # 1482731
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/17/2014 07:55 by SD

Submitted: 06/18/2014 10:05
Reported: 07/07/2014 12:31

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

568-- SDG#: PH235-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C8-C11)	n.a.	26	U	26	11	5
13197	EFH C12-C14 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.3	U	5.3	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	4.9	J	5.3	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	8.3	J	11	4.2	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.3	U	5.3	2.1	1

The reverse surrogate, capric acid, is present at <1%.
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The recovery for the method blank surrogate(s) is outside the QC acceptance limits as noted on the QC Summary.
The following corrective action was taken:
The sample was re-extracted within the method required holding time and the QC is compliant. The recovery for the sample surrogate(s) is outside the QC acceptance limits for the re-extraction. All results are reported from the first trial.
Similar results were obtained in both trials.

Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,800		42.3	4.80	1
06944	Antimony	7440-36-0	4.23	U	4.23	0.349	1
06935	Arsenic	7440-38-2	13.0		4.23	0.677	1
06946	Barium	7440-39-3	99.0		1.06	0.0349	1
06947	Beryllium	7440-41-7	0.535	J	1.06	0.0708	1
07914	Boron	7440-42-8	1.86	J	10.6	0.888	1
06949	Cadmium	7440-43-9	1.06	U	1.06	0.0349	1
01650	Calcium	7440-70-2	5,850		21.1	4.01	1
06951	Chromium	7440-47-3	16.9		3.17	0.116	1
06952	Cobalt	7440-48-4	5.59		1.06	0.101	1
06953	Copper	7440-50-8	12.4		2.11	0.349	1
01654	Iron	7439-89-6	21,300		42.3	3.53	1
06955	Lead	7439-92-1	23.6		3.17	0.529	1
01656	Lithium	7439-93-2	25.7		4.2	0.68	1
01657	Magnesium	7439-95-4	5,170		10.6	1.77	1
06958	Manganese	7439-96-5	345		1.06	0.0877	1
06960	Molybdenum	7439-98-7	0.312	J	2.11	0.180	1
06961	Nickel	7440-02-0	11.5		2.11	0.159	1
10145	Phosphorus	7723-14-0	489		10.6	0.338	1
01662	Potassium	7440-09-7	4,070		106	13.7	1
01667	Sodium	7440-23-5	79.9	J	106	17.7	1
06969	Tin	7440-31-5	3.52	J	10.6	0.455	1
06970	Titanium	7440-32-6	1,010		1.06	0.180	1
06971	Vanadium	7440-62-2	30.8		1.06	0.0962	1
06972	Zinc	7440-66-6	75.3		4.23	0.275	1
10146	Zirconium	7440-67-7	1.69	J	5.29	0.856	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.151	J	0.423	0.106	2
06142	Silver	7440-22-4	0.0410	J	0.211	0.0211	2

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-568-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7502708
LL Group # 1482731
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/17/2014 07:55 by SD

Submitted: 06/18/2014 10:05
Reported: 07/07/2014 12:31

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

568-- SDG#: PH235-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6020A**		**mg/kg**	**mg/kg**	**mg/kg**	
06144	Strontium	7440-24-6	29.6	0.423	0.0605	2
06145	Thallium	7440-28-0	0.273	0.211	0.0317	2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0371	0.0174	0.0104	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 23.1 C.	n.a.	6.43	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	5.4	0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14174SLA026	06/26/2014 02:44	Mark A Clark	10
10811	BNA Soil Microwave SIM	SW-846 3546	2	14174SLA026	06/23/2014 14:40	Kelli M Barto	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141750017A	06/25/2014 16:39	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	2	141750017A	06/25/2014 08:15	Katheryne V Sponheimer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141770027A	06/30/2014 19:36	Heather E Williams	5
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141700026A	06/25/2014 01:23	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	1	141700026A	06/20/2014 09:30	Katheryne V Sponheimer	1
12959	EFH soil ext.(microwave)	SW-846 3546	2	141770027A	06/27/2014 11:00	William H Saadeh	1
01643	Aluminum	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1
06944	Antimony	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1
06935	Arsenic	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1
06946	Barium	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1
06947	Beryllium	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1
07914	Boron	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1
06949	Cadmium	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-568-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7502708
LL Group # 1482731
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/17/2014 07:55 by SD

Submitted: 06/18/2014 10:05
Reported: 07/07/2014 12:31

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

568-- SDG#: PH235-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01650	Calcium	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1
06951	Chromium	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1
06952	Cobalt	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1
06953	Copper	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1
01654	Iron	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1
06955	Lead	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1
01656	Lithium	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1
01657	Magnesium	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1
06958	Manganese	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1
06960	Molybdenum	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1
06961	Nickel	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1
10145	Phosphorus	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1
01662	Potassium	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1
01667	Sodium	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1
06969	Tin	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1
06970	Titanium	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1
06971	Vanadium	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1
06972	Zinc	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1
10146	Zirconium	SW-846 6010C	1	141750637001	06/25/2014 20:25	John P Hook	1
06141	Selenium	SW-846 6020A	1	141750637001B	06/25/2014 06:10	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141750637001A	06/25/2014 06:10	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141750637001A	06/25/2014 06:10	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141750637001A	06/25/2014 06:10	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141780638002	06/30/2014 10:43	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141750637001	06/24/2014 07:40	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141780638002	06/29/2014 12:35	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14169039401A	06/18/2014 21:20	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14174162401A	06/23/2014 20:06	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-572-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7502709
LL Group # 1482731
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/17/2014 11:45 by SD

Submitted: 06/18/2014 10:05
Reported: 07/07/2014 12:31

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

572-- SDG#: PH235-03*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	7.3		5.1	2.0	1
12952	EFH (C21-C30)	n.a.	62		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	98		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	14		5.0	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	14		10	4.0	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
	The reverse surrogate, capric acid, is present at <1%.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.1		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141700025A	06/23/2014 20:47	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141770026A	06/30/2014 18:32	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	2	141770026A	06/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141700025A	06/20/2014 09:30	Katheryne V Sponheimer	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14174162401A	06/23/2014 20:06	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1482731
Reported: 07/07/14 at 12:31 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 14174SLA026	Sample number(s): 7502707-7502708									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	111		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	105		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	103		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	110		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	101		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	110		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	96		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	98		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	105		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	100		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	98		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	112		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	101		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	105		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	105		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	102		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	110		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	113		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	98		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	105		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	107		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	103		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	108		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	99		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	102		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	101		80-119		
Batch number: 141720009A	Sample number(s): 7502707									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	96	98	36-106	2	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	101		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	106		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141750017A	Sample number(s): 7502708									
Aroclor 5432	33	U	33.	10	ug/kg					

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1482731
Reported: 07/07/14 at 12:31 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Aroclor 5442	33	U	33.	10	ug/kg	93	94	36-106	1	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	107		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	110		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 141700025A	Sample number(s): 7502709									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	98		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	100		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	98		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	62		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	84		60-115		
Batch number: 141700026A	Sample number(s): 7502708									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	22*		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	21*		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	21*		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	15*		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	21*		60-115		
Batch number: 141770026A	Sample number(s): 7502707,7502709									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	92		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	94		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	95		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	95		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	74		60-115		
Batch number: 141770027A	Sample number(s): 7502707-7502708									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	87		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	88		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	87		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	86		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	76		60-115		
Batch number: 141750637001	Sample number(s): 7502707-7502708									
Aluminum	40.0	U	40.0	4.54	mg/kg	107		80-120		
Antimony	4.00	U	4.00	0.330	mg/kg	106		80-120		
Arsenic	4.00	U	4.00	0.640	mg/kg	105		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	99		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	102		80-120		
Boron	10.0	U	10.0	0.840	mg/kg	96		80-120		
Cadmium	1.00	U	1.00	0.0330	mg/kg	103		80-120		
Calcium	10.7	J	20.0	3.79	mg/kg	109		80-120		
Chromium	3.00	U	3.00	0.110	mg/kg	99		80-120		
Cobalt	1.00	U	1.00	0.0960	mg/kg	104		80-120		
Copper	2.00	U	2.00	0.330	mg/kg	103		80-120		
Iron	40.0	U	40.0	3.34	mg/kg	107		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	102		80-120		
Lithium	4.0	U	4.0	0.64	mg/kg	105		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	104		80-120		

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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1482731
Reported: 07/07/14 at 12:31 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Manganese	1.00	U	1.00	0.0830	mg/kg	103		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	102		80-120		
Nickel	2.00	U	2.00	0.150	mg/kg	106		80-120		
Phosphorus	1.76	J	10.0	0.320	mg/kg	101		80-120		
Potassium	100	U	100.	13.0	mg/kg	104		80-120		
Sodium	100	U	100.	16.7	mg/kg	104		80-120		
Tin	1.49	J	10.0	0.430	mg/kg	102		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	100		80-120		
Vanadium	1.00	U	1.00	0.0910	mg/kg	98		80-120		
Zinc	4.00	U	4.00	0.260	mg/kg	100		80-120		
Zirconium	5.00	U	5.00	0.810	mg/kg	103		80-120		
Batch number: 141750637001A	Sample number(s): 7502707-7502708									
Silver	0.200	U	0.200	0.0200	mg/kg	101		80-120		
Strontium	0.0581	J	0.400	0.0572	mg/kg	105		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	103		80-120		
Batch number: 141750637001B	Sample number(s): 7502707-7502708									
Selenium	0.400	U	0.400	0.100	mg/kg	97		80-120		
Batch number: 141780638002	Sample number(s): 7502707-7502708									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	90		85-120		
Batch number: 14169039401A	Sample number(s): 7502707-7502708									
15a pH by 9045D						100		95-105		
Batch number: 14174162401A	Sample number(s): 7502707-7502709									
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14174SLA026	Sample number(s): 7502707-7502708 UNSPK: 7502707								
Acenaphthene	104	104	48-127	1	30				
Acenaphthylene	103	103	60-128	0	30				
Anthracene	103	102	52-126	0	30				
Benzo(a)anthracene	110	107	44-143	2	30				
Benzo(a)pyrene	95	95	49-137	0	30				
Benzo(b)fluoranthene	123	123	26-142	0	30				
Benzo(e)pyrene	98	98	63-111	0	30				
Benzo(g,h,i)perylene	48	45	33-141	5	30				
Benzo(k)fluoranthene	106	107	49-144	0	30				
Butylbenzylphthalate	115	119	64-156	4	30				
Di-n-butylphthalate	107	105	52-147	1	30				
Chrysene	106	103	43-141	3	30				
Dibenz(a,h)anthracene	59	57	25-145	4	30				
Diethylphthalate	101	101	66-140	0	30				

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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1482731
Reported: 07/07/14 at 12:31 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Dimethylphthalate	98	101	70-123	2	30				
Bis(2-Ethylhexyl)phthalate	107	110	48-164	3	30				
Fluoranthene	108	109	38-153	1	30				
Fluorene	108	108	57-130	0	30				
Indeno(1,2,3-cd)pyrene	55	53	26-139	5	30				
1-Methylnaphthalene	104	104	59-139	0	30				
2-Methylnaphthalene	107	107	46-147	1	30				
Naphthalene	103	103	52-136	0	30				
N-Nitrosodimethylamine	105	105	39-134	1	30				
Di-n-octylphthalate	172*	178*	52-162	3	30				
Phenanthrene	100	101	50-137	0	30				
Pyrene	102	103	26-143	0	30				
Batch number: 141720009A	Sample number(s): 7502707 UNSPK: P501188								
PCB-1016	99	104	41-135	5	50				
PCB-1260	102	112	40-134	10	50				
Batch number: 141750017A	Sample number(s): 7502708 UNSPK: P501187								
PCB-1016	86	100	41-135	15	50				
PCB-1260	88	109	40-134	20	50				
Batch number: 141700025A	Sample number(s): 7502709 UNSPK: P501188								
EFH (C12-C14)	107	126*	49-123	16	20				
EFH (C15-C20)	127*	137*	49-123	7	20				
EFH (C21-C30)	-71*	-43*	49-123	14	20				
EFH (C30-C40)	-318 (2)	-264 (2)	49-123	21*	20				
EFH (C8-C11)	87	91	49-123	3	20				
Batch number: 141700026A	Sample number(s): 7502708 UNSPK: P501188								
EFH C12-C14 w/ SiGel	83	85	49-123	2	20				
EFH C15-C20 w/ SiGel	80	77	49-123	5	20				
EFH C21-C30 w/ SiGel	3*	4*	49-123	1	20				
EFH C30-C40 w/ SiGel	-67*	-85*	49-123	13	20				
EFH C8-C11 w/ SiGel	67	62	49-123	9	20				
Batch number: 141770026A	Sample number(s): 7502707,7502709 UNSPK: P501188								
EFH C12-C14 w/ SiGel	82	88	49-123	8	20				
EFH C15-C20 w/ SiGel	78	81	49-123	4	20				
EFH C21-C30 w/ SiGel	-82*	-58*	49-123	19	20				
EFH C30-C40 w/ SiGel	-262 (2)	-217 (2)	49-123	22*	20				
EFH C8-C11 w/ SiGel	58	63	49-123	9	20				
Batch number: 141770027A	Sample number(s): 7502707-7502708 UNSPK: 7502707								
EFH (C12-C14)	90	91	49-123	0	20				
EFH (C15-C20)	89	102	49-123	10	20				
EFH (C21-C30)	112	153*	49-123	16	20				
EFH (C30-C40)	135*	250*	49-123	26*	20				
EFH (C8-C11)	77	79	49-123	3	20				
Batch number: 141750637001	Sample number(s): 7502707-7502708 UNSPK: 7502707 BKG: 7502707								

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1482731
Reported: 07/07/14 at 12:31 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Aluminum	1388 (2)	1481 (2)	75-125	1	20	13,000	13,000	0	20
Antimony	47*	43*	75-125	9	20	4.00 U	4.00 U	0 (1)	20
Arsenic	100	99	75-125	1	20	6.84	6.07	12 (1)	20
Barium	95	94	75-125	1	20	90.4	80.5	12	20
Beryllium	100	99	75-125	1	20	0.539 J	0.530 J	2 (1)	20
Boron	97	94	75-125	3	20	3.69 J	2.32 J	46* (1)	20
Cadmium	93	93	75-125	1	20	1.00 U	1.00 U	0 (1)	20
Calcium	-182 (2)	-374 (2)	75-125	17	20	5,620	3,430	49*	20
Chromium	110	99	75-125	6	20	14.0	13.8	2 (1)	20
Cobalt	94	95	75-125	1	20	6.24	4.66	29* (1)	20
Copper	101	100	75-125	1	20	10.8	9.08	17 (1)	20
Iron	-94 (2)	632 (2)	75-125	4	20	19,200	18,700	3	20
Lead	89	88	75-125	0	20	13.7	13.8	1 (1)	20
Lithium	104	106	75-125	1	20	22.5	23.4	4	20
Magnesium	156 (2)	162 (2)	75-125	0	20	4,180	4,010	4	20
Manganese	14 (2)	23 (2)	75-125	1	20	340	305	11	20
Molybdenum	96	96	75-125	0	20	0.660 J	0.313 J	71* (1)	20
Nickel	98	98	75-125	0	20	8.63	8.34	3 (1)	20
Phosphorus	260 (2)	50 (2)	75-125	37*	20	403	366	10	20
Potassium	121	128*	75-125	2	20	3,570	3,470	3	20
Sodium	103	103	75-125	0	20	65.8 J	65.8 J	0 (1)	20
Tin	91	91	75-125	1	20	3.43 J	3.28 J	4 (1)	20
Titanium	321 (2)	271 (2)	75-125	4	20	894	931	4	20
Vanadium	108	98	75-125	6	20	29.7	29.0	2	20
Zinc	94	94	75-125	0	20	57.0	52.6	8	20
Zirconium	96	96	75-125	0	20	2.13 J	2.04 J	5 (1)	20
Batch number: 141750637001A	Sample number(s): 7502707-7502708 UNSPK: 7502707 BKG: 7502707								
Silver	144*	117	75-125	21*	20	0.0260 J	0.0423 J	48* (1)	20
Strontium	152 (2)	26 (2)	75-125	24*	20	34.3	22.8	40*	20
Thallium	158*	114	75-125	21*	20	0.279	0.258	8 (1)	20
Batch number: 141750637001B	Sample number(s): 7502707-7502708 UNSPK: 7502707 BKG: 7502707								
Selenium	131*	113	75-125	14	20	0.196 J	0.155 J	23* (1)	20
Batch number: 141780638002	Sample number(s): 7502707-7502708 UNSPK: P504494 BKG: P504494								
3a Mercury 7471A	94	92	65-135	1	20	0.0407	0.0376	8 (1)	20
Batch number: 14169039401A	Sample number(s): 7502707-7502708 BKG: 7502707								
15a pH by 9045D						6.73	6.74	0	3
Batch number: 14174162401A	Sample number(s): 7502707-7502709 BKG: P501188								
14a Moisture Content by 160.3						2.7	2.6	2	20

Surrogate Quality Control

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1482731
Reported: 07/07/14 at 12:31 PM

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14174SLA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7502707	112	107	97
7502708	89	79	95
Blank	111	114	100
LCS	110	115	99
MS	112	110	99
MSD	112	109	98
Limits:	59-115	61-118	70-127

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141720009A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7502707	116	111
Blank	120	109
LCS	120	107
LCSD	131*	129*
MS	122*	105
MSD	124*	114
Limits:	45-120	45-120

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141750017A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7502708	113	107
Blank	125*	106
LCS	122*	110
LCSD	121*	112
MS	100	93
MSD	118	107
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141700025A

	Chlorobenzene	Orthoterphenyl
7502709	90	122
Blank	73	89
LCS	79	97
MS	79	95
MSD	98	104
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1482731
Reported: 07/07/14 at 12:31 PM

Surrogate Quality Control

Batch number: 141700026A

	Chlorobenzene	Orthoterphenyl
7502708	49	68
Blank	49	56*
LCS	24*	21*
MS	69	76
MSD	61	70
Limits:	37-125	66-123

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141770026A

	Chlorobenzene	Orthoterphenyl
7502707	70	76
7502709	66	72
Blank	69	74
LCS	88	96
MS	69	78
MSD	74	80
Limits:	37-125	66-123

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141770027A

	Chlorobenzene	Orthoterphenyl
7502707	87	85
7502708	85	91
Blank	75	88
LCS	76	90
MS	72	82
MSD	71	81
Limits:	37-125	66-123

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/17/2014
CarrierName: FedEx
AirbillNo: 770330975227

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

A-13013
G-1482731
S-7502707-09

COC No: 20140617-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/14 08:55	SO	None	2 - SS-Sleeve	10 day	X	X					X			X											X														
FDG2-SL-567-NBZ-SB-0.0-0.5	6/17/14 08:55	SO	None	1 - 4 oz glass	10 day													X																						
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/14 07:55	SO	None	2 - SS-Sleeve	10 day	X	X					X			X											X														
FDG2-SL-568-NBZ-SB-0.0-0.5	6/17/14 07:55	SO	None	1 - 4 oz glass	10 day													X																						
FDG2-SL-572-NBZ-SB-0.0-0.5	6/17/14 11:45	SO	None	1 - SS-Sleeve	10 day																					X														

Special Instructions: For all EFH, silica gel cleanup required on half the extract. Analyze both extracts for EFH.

Sampler: Sandy Do

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Sandy Mypel	06/17/14	1600									
										6/18/14	1005

Final Data Gap Block 2 1 of 1

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 17712

Group Number(s): 148273/

Client: CDM Smith

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	06/18/2014 10:05
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	0
Custody Seal Present:	Yes	Trip Blank Type:	N/A
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	N/A		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Joseph Gruber (5200) at 11:59 on 06/18/2014

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
2	DT131	2.4	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

July 03, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 06/19/2014
Group Number: 1483089
SDG: PH237
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
FDG2-SL-573-NBZ-SB-0.0-0.5 Soil	7504493
FDG2-SL-574-NBZ-SB-0.0-0.5 Soil	7504494
FDG2-SL-575-NBZ-SB-0.0-0.5 Soil	7504495
EB1-061814 Water	7504496

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: FDG2-SL-573-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7504493
LL Group # 1483089
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/18/2014 09:40 by SD

Submitted: 06/19/2014 09:20
Reported: 07/03/2014 08:56

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

573-- SDG#: PH237-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	25	U	25	10	5
12952	EFH (C15-C20)	n.a.	14	J	25	10	5
12952	EFH (C21-C30)	n.a.	100		25	10	5
12952	EFH (C30-C40)	n.a.	320		50	20	5
12952	EFH (C8-C11)	n.a.	25	U	25	10	5
13197	EFH C12-C14 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	27		5.0	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	56		10	4.0	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
	The reverse surrogate, capric acid, is present at <1%.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.4		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141700025A	06/24/2014 00:37	Heather E Williams	5
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141770026A	06/30/2014 23:52	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	2	141770026A	06/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141700025A	06/20/2014 09:30	Katheryne V Sponheimer	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14174162401B	06/23/2014 20:06	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-574-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7504494
LL Group # 1483089
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/18/2014 08:20 by SD

Submitted: 06/19/2014 09:20
Reported: 07/03/2014 08:56

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

574-- SDG#: PH237-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.4	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.2	1
13099	PCB-1242	53469-21-9	17	U	17	4.2	1
13099	PCB-1248	12672-29-6	17	U	17	3.4	1
13099	PCB-1254	11097-69-1	17	U	17	4.5	1
13099	PCB-1260	11096-82-5	17	U	17	4.0	1
13099	PCB-1262	37324-23-5	17	U	17	3.4	1
13099	PCB-1268	11100-14-4	17	U	17	3.4	1
For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.							
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	4.2	J	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	25		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	38		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
13197	EFH C21-C30 w/ SiGel	n.a.	3.9	J	5.1	2.1	1
13197	EFH C30-C40 w/ SiGel	n.a.	5.7	J	10	4.1	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.1	U	5.1	2.1	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	21,900		41.0	4.66	1
06944	Antimony	7440-36-0	4.10	U	4.10	0.338	1
06935	Arsenic	7440-38-2	3.96	J	4.10	0.656	1
06946	Barium	7440-39-3	132		1.03	0.0338	1
06947	Beryllium	7440-41-7	0.886	J	1.03	0.0687	1
07914	Boron	7440-42-8	10.3	U	10.3	0.862	1
06949	Cadmium	7440-43-9	1.03	U	1.03	0.0338	1
01650	Calcium	7440-70-2	4,700		20.5	3.89	1
06951	Chromium	7440-47-3	21.6		3.08	0.113	1
06952	Cobalt	7440-48-4	7.56		1.03	0.0985	1
06953	Copper	7440-50-8	15.8		2.05	0.338	1
01654	Iron	7439-89-6	28,600		82.1	6.85	2
06955	Lead	7439-92-1	20.5		3.08	0.513	1
01656	Lithium	7439-93-2	30.2		4.1	0.66	1
01657	Magnesium	7439-95-4	6,010		10.3	1.71	1
06958	Manganese	7439-96-5	428		1.03	0.0851	1
06960	Molybdenum	7439-98-7	0.339	J	2.05	0.174	1
06961	Nickel	7440-02-0	14.0		2.05	0.154	1
10145	Phosphorus	7723-14-0	509		10.3	0.328	1
01662	Potassium	7440-09-7	5,720		103	13.3	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-574-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7504494
LL Group # 1483089
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/18/2014 08:20 by SD

Submitted: 06/19/2014 09:20
Reported: 07/03/2014 08:56

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

574-- SDG#: PH237-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01667	Sodium	7440-23-5	86.7	J	103	17.1	1
06969	Tin	7440-31-5	4.07	J	10.3	0.441	1
06970	Titanium	7440-32-6	1,090		1.03	0.174	1
06971	Vanadium	7440-62-2	41.9		1.03	0.0933	1
06972	Zinc	7440-66-6	86.0		4.10	0.267	1
10146	Zirconium	7440-67-7	2.28	J	5.13	0.831	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.240	J	0.410	0.103	2
06142	Silver	7440-22-4	0.0517	J	0.205	0.0205	2
06144	Strontium	7440-24-6	34.1		0.410	0.0587	2
06145	Thallium	7440-28-0	0.355		0.205	0.0308	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0418		0.0162	0.0097	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 21.5 C.	n.a.	5.92		0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3 Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	2.5		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141720009A	06/23/2014 23:00	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141720009A	06/23/2014 05:30	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141700025A	06/20/2014 20:05	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141770026A	06/30/2014 18:53	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	2	141770026A	06/27/2014 11:00	William H Saadeh	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-574-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7504494
LL Group # 1483089
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/18/2014 08:20 by SD

Submitted: 06/19/2014 09:20
Reported: 07/03/2014 08:56

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

574-- SDG#: PH237-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12959	EFH soil ext.(microwave)	SW-846 3546	1	141700025A	06/20/2014 09:30	Katheryne V Sponheimer	1
01643	Aluminum	SW-846 6010C	1	141750637001	06/25/2014 20:29	John P Hook	1
06944	Antimony	SW-846 6010C	1	141750637001	06/25/2014 20:29	John P Hook	1
06935	Arsenic	SW-846 6010C	1	141750637001	06/25/2014 20:29	John P Hook	1
06946	Barium	SW-846 6010C	1	141750637001	06/25/2014 20:29	John P Hook	1
06947	Beryllium	SW-846 6010C	1	141750637001	06/25/2014 20:29	John P Hook	1
07914	Boron	SW-846 6010C	1	141750637001	06/25/2014 20:29	John P Hook	1
06949	Cadmium	SW-846 6010C	1	141750637001	06/25/2014 20:29	John P Hook	1
01650	Calcium	SW-846 6010C	1	141750637001	06/25/2014 20:29	John P Hook	1
06951	Chromium	SW-846 6010C	1	141750637001	06/25/2014 20:29	John P Hook	1
06952	Cobalt	SW-846 6010C	1	141750637001	06/25/2014 20:29	John P Hook	1
06953	Copper	SW-846 6010C	1	141750637001	06/25/2014 20:29	John P Hook	1
01654	Iron	SW-846 6010C	1	141750637001	06/27/2014 11:46	Joanne M Gates	2
06955	Lead	SW-846 6010C	1	141750637001	06/25/2014 20:29	John P Hook	1
01656	Lithium	SW-846 6010C	1	141750637001	06/25/2014 20:29	John P Hook	1
01657	Magnesium	SW-846 6010C	1	141750637001	06/25/2014 20:29	John P Hook	1
06958	Manganese	SW-846 6010C	1	141750637001	06/25/2014 20:29	John P Hook	1
06960	Molybdenum	SW-846 6010C	1	141750637001	06/25/2014 20:29	John P Hook	1
06961	Nickel	SW-846 6010C	1	141750637001	06/25/2014 20:29	John P Hook	1
10145	Phosphorus	SW-846 6010C	1	141750637001	06/25/2014 20:29	John P Hook	1
01662	Potassium	SW-846 6010C	1	141750637001	06/25/2014 20:29	John P Hook	1
01667	Sodium	SW-846 6010C	1	141750637001	06/25/2014 20:29	John P Hook	1
06969	Tin	SW-846 6010C	1	141750637001	06/25/2014 20:29	John P Hook	1
06970	Titanium	SW-846 6010C	1	141750637001	06/25/2014 20:29	John P Hook	1
06971	Vanadium	SW-846 6010C	1	141750637001	06/25/2014 20:29	John P Hook	1
06972	Zinc	SW-846 6010C	1	141750637001	06/25/2014 20:29	John P Hook	1
10146	Zirconium	SW-846 6010C	1	141750637001	06/25/2014 20:29	John P Hook	1
06141	Selenium	SW-846 6020A	1	141750637001B	06/25/2014 06:18	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141750637001A	06/25/2014 06:18	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141750637001A	06/25/2014 06:18	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141750637001A	06/25/2014 06:18	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141780638002	06/30/2014 10:45	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141750637001	06/24/2014 07:40	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141780638002	06/29/2014 12:35	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14170039401A	06/19/2014 20:30	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14174162401B	06/23/2014 20:06	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-575-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7504495
LL Group # 1483089
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/18/2014 07:55 by SD

Submitted: 06/19/2014 09:20
Reported: 07/03/2014 08:56

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

575-- SDG#: PH237-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	17	U	17	6.7	10
12969	Acenaphthylene	208-96-8	17	U	17	3.4	10
12969	Anthracene	120-12-7	17	U	17	3.4	10
12969	Benzo(a)anthracene	56-55-3	17	U	17	6.7	10
12969	Benzo(a)pyrene	50-32-8	17	U	17	6.7	10
12969	Benzo(b)fluoranthene	205-99-2	17	U	17	6.7	10
12969	Benzo(e)pyrene	192-97-2	170	U	170	34	10
12969	Benzo(g,h,i)perylene	191-24-2	17	U	17	6.7	10
12969	Benzo(k)fluoranthene	207-08-9	10	J	17	6.7	10
12969	Butylbenzylphthalate	85-68-7	180	U	180	60	10
12969	Di-n-butylphthalate	84-74-2	180	U	180	60	10
12969	Chrysene	218-01-9	17	U	17	3.4	10
12969	Dibenz(a,h)anthracene	53-70-3	17	U	17	6.7	10
12969	Diethylphthalate	84-66-2	180	U	180	60	10
12969	Dimethylphthalate	131-11-3	180	U	180	60	10
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	180	U	180	60	10
12969	Fluoranthene	206-44-0	17	U	17	6.7	10
12969	Fluorene	86-73-7	17	U	17	6.7	10
12969	Indeno(1,2,3-cd)pyrene	193-39-5	17	U	17	6.7	10
12969	1-Methylnaphthalene	90-12-0	17	U	17	6.7	10
12969	2-Methylnaphthalene	91-57-6	17	U	17	6.7	10
12969	Naphthalene	91-20-3	17	U	17	6.7	10
12969	N-Nitrosodimethylamine	62-75-9	17	U	17	6.7	10
12969	Di-n-octylphthalate	117-84-0	180	U	180	60	10
12969	Phenanthrene	85-01-8	17	U	17	6.7	10
12969	Pyrene	129-00-0	17	U	17	6.7	10
	Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	33	U	33	9.9	1
13099	Aroclor 5442	12642-23-8	33	U	33	9.9	1
13099	Aroclor 5460	11126-42-4	33	U	33	9.9	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.1	1
13099	PCB-1232	11141-16-5	17	U	17	4.1	1
13099	PCB-1242	53469-21-9	17	U	17	4.1	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	17	U	17	4.4	1
13099	PCB-1260	11096-82-5	17	U	17	3.9	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
	For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.0	U	5.0	2.0	1
12952	EFH (C15-C20)	n.a.	4.5	J	5.0	2.0	1
12952	EFH (C21-C30)	n.a.	20		5.0	2.0	1
12952	EFH (C30-C40)	n.a.	46		10	4.0	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-575-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7504495
LL Group # 1483089
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/18/2014 07:55 by SD

Submitted: 06/19/2014 09:20
Reported: 07/03/2014 08:56

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

575-- SDG#: PH237-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C8-C11)	n.a.	5.0	U	5.0	2.0	1
13197	EFH C12-C14 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C15-C20 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
13197	EFH C21-C30 w/ SiGel	n.a.	9.8		5.0	2.0	1
13197	EFH C30-C40 w/ SiGel	n.a.	16		9.9	4.0	1
13197	EFH C8-C11 w/ SiGel	n.a.	5.0	U	5.0	2.0	1
The reverse surrogate, capric acid, is present at <1%.							
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	10,900		40.3	4.57	1
06944	Antimony	7440-36-0	4.03	U	4.03	0.332	1
06935	Arsenic	7440-38-2	2.50	J	4.03	0.645	1
06946	Barium	7440-39-3	73.3		1.01	0.0332	1
06947	Beryllium	7440-41-7	0.411	J	1.01	0.0675	1
07914	Boron	7440-42-8	0.892	J	10.1	0.846	1
06949	Cadmium	7440-43-9	1.01	U	1.01	0.0332	1
01650	Calcium	7440-70-2	3,070		20.1	3.82	1
06951	Chromium	7440-47-3	12.2		3.02	0.111	1
06952	Cobalt	7440-48-4	4.12		1.01	0.0967	1
06953	Copper	7440-50-8	8.21		2.01	0.332	1
01654	Iron	7439-89-6	17,800		40.3	3.36	1
06955	Lead	7439-92-1	11.8		3.02	0.504	1
01656	Lithium	7439-93-2	24.8		4.0	0.64	1
01657	Magnesium	7439-95-4	3,810		10.1	1.68	1
06958	Manganese	7439-96-5	266		1.01	0.0836	1
06960	Molybdenum	7439-98-7	2.01	U	2.01	0.171	1
06961	Nickel	7440-02-0	7.30		2.01	0.151	1
10145	Phosphorus	7723-14-0	374		10.1	0.322	1
01662	Potassium	7440-09-7	3,390		101	13.1	1
01667	Sodium	7440-23-5	58.4	J	101	16.8	1
06969	Tin	7440-31-5	3.18	J	10.1	0.433	1
06970	Titanium	7440-32-6	843		1.01	0.171	1
06971	Vanadium	7440-62-2	24.3		1.01	0.0917	1
06972	Zinc	7440-66-6	53.1		4.03	0.262	1
10146	Zirconium	7440-67-7	1.39	J	5.04	0.816	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.175	J	0.403	0.101	2
06142	Silver	7440-22-4	0.0288	J	0.201	0.0201	2
06144	Strontium	7440-24-6	15.2		0.403	0.0576	2
06145	Thallium	7440-28-0	0.211		0.201	0.0302	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0145	J	0.0158	0.0095	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.41		0.0100	0.0100	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-575-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7504495
LL Group # 1483089
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/18/2014 07:55 by SD

Submitted: 06/19/2014 09:20
Reported: 07/03/2014 08:56

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

575-- SDG#: PH237-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		Std. Units	Std. Units	Std. Units	
	The pH was measured in water at 21.9 C.					
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	0.73	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14174SLA026	06/26/2014 03:17	Mark A Clark	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	14174SLA026	06/23/2014 14:40	Kelli M Barto	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	141720009A	06/23/2014 23:19	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	141720009A	06/23/2014 05:30	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141700025A	06/20/2014 20:26	Heather E Williams	1
13197	37a TPH-EFH w/Si Gel	SW-846 8015B modified	1	141770026A	06/30/2014 19:14	Heather E Williams	1
13204	EFH Microwave Ext. w/SiGel	SW-846 3546	2	141770026A	06/27/2014 11:00	William H Saadeh	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	141700025A	06/20/2014 09:30	Katheryne V Sponheimer	1
01643	Aluminum	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1
06944	Antimony	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1
06935	Arsenic	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1
06946	Barium	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1
06947	Beryllium	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1
07914	Boron	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1
06949	Cadmium	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1
01650	Calcium	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1
06951	Chromium	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1
06952	Cobalt	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1
06953	Copper	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1
01654	Iron	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1
06955	Lead	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1
01656	Lithium	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1
01657	Magnesium	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1
06958	Manganese	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: FDG2-SL-575-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7504495
LL Group # 1483089
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/18/2014 07:55 by SD

Submitted: 06/19/2014 09:20
Reported: 07/03/2014 08:56

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

575-- SDG#: PH237-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06960	Molybdenum	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1
06961	Nickel	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1
10145	Phosphorus	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1
01662	Potassium	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1
01667	Sodium	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1
06969	Tin	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1
06970	Titanium	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1
06971	Vanadium	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1
06972	Zinc	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1
10146	Zirconium	SW-846 6010C	1	141750637001	06/25/2014 20:40	John P Hook	1
06141	Selenium	SW-846 6020A	1	141750637001B	06/25/2014 06:20	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	141750637001A	06/25/2014 06:20	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	141750637001A	06/25/2014 06:20	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	141750637001A	06/25/2014 06:20	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	141780638002	06/30/2014 10:55	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	141750637001	06/24/2014 07:40	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	141780638002	06/29/2014 12:35	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	14170039401A	06/19/2014 20:30	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	14174162401B	06/23/2014 20:06	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: EB1-061814 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7504496
LL Group # 1483089
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/18/2014 15:00 by SM

Submitted: 06/19/2014 09:20
Reported: 07/03/2014 08:56

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB118 SDG#: PH237-04EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	20	U	20	6	1
10335	Acrolein	107-02-8	100	U	100	40	1
10335	Acrylonitrile	107-13-1	20	U	20	4	1
10335	t-Amyl methyl ether	994-05-8	1	U	1	0.5	1
10335	Benzene	71-43-2	1	U	1	0.5	1
10335	Bromobenzene	108-86-1	5	U	5	1	1
10335	Bromochloromethane	74-97-5	5	U	5	1	1
10335	Bromodichloromethane	75-27-4	1	U	1	0.5	1
10335	Bromoform	75-25-2	4	U	4	0.5	1
10335	Bromomethane	74-83-9	1	U	1	0.5	1
10335	2-Butanone	78-93-3	3	J	10	3	1
10335	t-Butyl alcohol	75-65-0	50	U	50	5	1
10335	n-Butylbenzene	104-51-8	5	U	5	1	1
10335	sec-Butylbenzene	135-98-8	5	U	5	1	1
10335	tert-Butylbenzene	98-06-6	5	U	5	1	1
10335	Carbon Disulfide	75-15-0	5	U	5	1	1
10335	Carbon Tetrachloride	56-23-5	1	U	1	0.5	1
10335	Chlorobenzene	108-90-7	1	U	1	0.5	1
10335	Chloroethane	75-00-3	1	U	1	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10335	Chloroform	67-66-3	1	U	1	0.5	1
10335	1-Chlorohexane	544-10-5	5	U	5	1	1
10335	Chloromethane	74-87-3	1	U	1	0.5	1
10335	2-Chlorotoluene	95-49-8	5	U	5	1	1
10335	4-Chlorotoluene	106-43-4	5	U	5	1	1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2	1
10335	Dibromochloromethane	124-48-1	1	U	1	0.5	1
10335	1,2-Dibromoethane	106-93-4	1	U	1	0.5	1
10335	Dibromomethane	74-95-3	1	U	1	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1	1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1	1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1	1
10335	Dichlorodifluoromethane	75-71-8	1	U	1	0.5	1
10335	1,1-Dichloroethane	75-34-3	1	U	1	0.5	1
10335	1,2-Dichloroethane	107-06-2	1	U	1	0.5	1
10335	1,1-Dichloroethene	75-35-4	1	U	1	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	1	U	1	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	1	U	1	0.5	1
10335	1,2-Dichloropropane	78-87-5	1	U	1	0.5	1
10335	1,3-Dichloropropane	142-28-9	1	U	1	0.5	1
10335	2,2-Dichloropropane	594-20-7	1	U	1	0.5	1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	1	U	1	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	1	U	1	0.5	1
10335	Ethyl t-butyl ether	637-92-3	1	U	1	0.5	1
10335	Ethylbenzene	100-41-4	1	U	1	0.5	1
10335	Freon 113	76-13-1	10	U	10	2	1
10335	Freon 133a	75-88-7	5	U	5	2	1

*=This limit was used in the evaluation of the final result

Sample Description: EB1-061814 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7504496
LL Group # 1483089
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/18/2014 15:00 by SM

Submitted: 06/19/2014 09:20
Reported: 07/03/2014 08:56

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB118 SDG#: PH237-04EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2	1
10335	2-Hexanone	591-78-6	10	U	10	3	1
10335	di-Isopropyl ether	108-20-3	1	U	1	0.5	1
10335	Isopropylbenzene	98-82-8	5	U	5	1	1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1	1
10335	Methyl Iodide	74-88-4	1	U	1	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	1	U	1	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3	1
10335	Methylene Chloride	75-09-2	3	U	3	2	1
10335	n-Propylbenzene	103-65-1	5	U	5	1	1
10335	Styrene	100-42-5	5	U	5	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	1	U	1	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	1	U	1	0.5	1
10335	Tetrachloroethene	127-18-4	1	U	1	0.5	1
10335	Toluene	108-88-3	1	U	1	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1	1
10335	1,1,1-Trichloroethane	71-55-6	1	U	1	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	1	U	1	0.5	1
10335	Trichloroethene	79-01-6	1	U	1	0.5	1
10335	Trichlorofluoromethane	75-69-4	1	U	1	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1	1
10335	Vinyl Acetate	108-05-4	10	U	10	2	1
10335	Vinyl Chloride	75-01-4	1	U	1	0.5	1
10335	m+p-Xylene	179601-23-1	1	U	1	0.5	1
10335	o-Xylene	95-47-6	1	U	1	0.5	1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: vinyl acetate.						
GC/MS Volatiles	**SW-846 8260B SIM**		**ug/l**		**ug/l**	**ug/l**	
00527	1,4-Dioxane	123-91-1	2.0	U	2.0	0.5	1
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	
12971	Acenaphthene	83-32-9	0.052	U	0.052	0.010	1
12971	Acenaphthylene	208-96-8	0.052	U	0.052	0.010	1
12971	Anthracene	120-12-7	0.052	U	0.052	0.010	1
12971	Benzo(a)anthracene	56-55-3	0.052	U	0.052	0.010	1
12971	Benzo(a)pyrene	50-32-8	0.052	U	0.052	0.010	1
12971	Benzo(b)fluoranthene	205-99-2	0.052	U	0.052	0.010	1
12971	Benzo(e)pyrene	192-97-2	0.052	U	0.052	0.010	1
12971	Benzo(g,h,i)perylene	191-24-2	0.052	U	0.052	0.010	1
12971	Benzo(k)fluoranthene	207-08-9	0.052	U	0.052	0.010	1
12971	Butylbenzylphthalate	85-68-7	1.0	U	1.0	0.052	1
12971	Di-n-butylphthalate	84-74-2	0.13	J	1.0	0.052	1
12971	Chrysene	218-01-9	0.052	U	0.052	0.010	1
12971	Dibenz(a,h)anthracene	53-70-3	0.052	U	0.052	0.010	1
12971	Diethylphthalate	84-66-2	0.11	J	1.0	0.052	1

*=This limit was used in the evaluation of the final result

Sample Description: EB1-061814 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7504496
LL Group # 1483089
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/18/2014 15:00 by SM

Submitted: 06/19/2014 09:20
Reported: 07/03/2014 08:56

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB118 SDG#: PH237-04EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	
12971	Dimethylphthalate	131-11-3	1.0	U	1.0	0.052	1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.094	J	1.0	0.052	1
12971	Fluoranthene	206-44-0	0.052	U	0.052	0.010	1
12971	Fluorene	86-73-7	0.052	U	0.052	0.010	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.052	U	0.052	0.010	1
12971	1-Methylnaphthalene	90-12-0	0.011	J	0.052	0.010	1
12971	2-Methylnaphthalene	91-57-6	0.015	J	0.052	0.010	1
12971	Naphthalene	91-20-3	0.036	J	0.052	0.031	1
12971	N-Nitrosodimethylamine	62-75-9	0.052	U	0.052	0.010	1
12971	Di-n-octylphthalate	117-84-0	1.0	U	1.0	0.052	1
12971	Phenanthrene	85-01-8	0.052	U	0.052	0.031	1
12971	Pyrene	129-00-0	0.052	U	0.052	0.010	1

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the result is within the acceptance range allowed by the method, the data is reported.

GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1
Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	
13092	Aroclor 5432	63496-31-1	0.43	U	0.43	0.087	1
13092	Aroclor 5442	12642-23-8	0.43	U	0.43	0.087	1
13092	Aroclor 5460	11126-42-4	0.43	U	0.43	0.095	1
13092	PCB-1016	12674-11-2	0.43	U	0.43	0.087	1
13092	PCB-1221	11104-28-2	0.43	U	0.43	0.087	1
13092	PCB-1232	11141-16-5	0.43	U	0.43	0.17	1
13092	PCB-1242	53469-21-9	0.43	U	0.43	0.087	1
13092	PCB-1248	12672-29-6	0.43	U	0.43	0.087	1
13092	PCB-1254	11097-69-1	0.43	U	0.43	0.087	1
13092	PCB-1260	11096-82-5	0.43	U	0.43	0.13	1
13092	PCB-1262	37324-23-5	0.43	U	0.43	0.17	1
13092	PCB-1268	11100-14-4	0.43	U	0.43	0.14	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**		**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.098	U	0.098	0.049	1
10365	EFH (C15-C20)	n.a.	0.098	U	0.098	0.049	1
10365	EFH (C21-C30)	n.a.	0.098	U	0.098	0.049	1
10365	EFH (C30 - C40)	n.a.	0.49	U	0.49	0.098	1
10365	EFH (C8-C11)	n.a.	0.098	U	0.098	0.049	1
13205	EFH C12-C14 w/ SiGel	n.a.	0.098	U	0.098	0.049	1
13205	EFH C15-C20 w/ SiGel	n.a.	0.098	U	0.098	0.049	1
13205	EFH C21-C30 w/ SiGel	n.a.	0.098	U	0.098	0.049	1
13205	EFH C30-C40 w/ SiGel	n.a.	0.49	U	0.49	0.098	1
13205	EFH C8-C11 w/ SiGel	n.a.	0.098	U	0.098	0.049	1

The reverse surrogate, capric acid, is present at <1%.
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

*=This limit was used in the evaluation of the final result

Sample Description: EB1-061814 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7504496
LL Group # 1483089
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/18/2014 15:00 by SM

Submitted: 06/19/2014 09:20
Reported: 07/03/2014 08:56

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB118 SDG#: PH237-04EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400 U	0.400	0.0674	1
07044	Antimony	7440-36-0	0.0400 U	0.0400	0.0051	1
07035	Arsenic	7440-38-2	0.0400 U	0.0400	0.0072	1
07046	Barium	7440-39-3	0.0100 U	0.0100	0.00033	1
07047	Beryllium	7440-41-7	0.0100 U	0.0100	0.00067	1
08014	Boron	7440-42-8	0.0061 J	0.100	0.0046	1
07049	Cadmium	7440-43-9	0.00037 J	0.0100	0.00033	1
01750	Calcium	7440-70-2	0.400 U	0.400	0.0334	1
07051	Chromium	7440-47-3	0.0300 U	0.0300	0.0013	1
07052	Cobalt	7440-48-4	0.0100 U	0.0100	0.0010	1
07053	Copper	7440-50-8	0.0200 U	0.0200	0.0028	1
01754	Iron	7439-89-6	0.400 U	0.400	0.0334	1
07055	Lead	7439-92-1	0.0300 U	0.0300	0.0047	1
01756	Lithium	7439-93-2	0.0400 U	0.0400	0.0046	1
01757	Magnesium	7439-95-4	0.200 U	0.200	0.0167	1
07058	Manganese	7439-96-5	0.00085 J	0.0100	0.00083	1
07060	Molybdenum	7439-98-7	0.0100 J	0.0200	0.0017	1
07061	Nickel	7440-02-0	0.0200 U	0.0200	0.0016	1
10143	Phosphorus	7723-14-0	0.200 U	0.200	0.0050	1
01762	Potassium	7440-09-7	1.00 U	1.00	0.133	1
01767	Sodium	7440-23-5	2.00 U	2.00	0.167	1
07069	Tin	7440-31-5	0.0400 U	0.0400	0.0024	1
07070	Titanium	7440-32-6	0.0200 U	0.0200	0.0017	1
07071	Vanadium	7440-62-2	0.0100 U	0.0100	0.0019	1
07072	Zinc	7440-66-6	0.0400 U	0.0400	0.0020	1
10144	Zirconium	7440-67-7	0.100 U	0.100	0.0081	1
	SW-846 6020A		**mg/l**	**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040 U	0.0040	0.00050	1
06042	Silver	7440-22-4	0.0010 U	0.0010	0.00013	1
06044	Strontium	7440-24-6	0.0020 U	0.0020	0.00031	1
06045	Thallium	7440-28-0	0.0010 U	0.0010	0.00015	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A	7439-97-6	0.00020 U	0.00020	0.000060	1
Wet Chemistry	**SW-846 9040C**		**Std. Units**	**Std. Units**	**Std. Units**	
12152	28b pH (9040B and 9040C)	n.a.	5.2	0.010	0.010	1

*=This limit was used in the evaluation of the final result

Sample Description: EB1-061814 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7504496
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Project Name: SSFL Phase 3 Sampling

Collected: 06/18/2014 15:00 by SM

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB118 SDG#: PH237-04EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	
10915	2378-TCDD	1746-01-6	0.812	JQ	2.08	0.522	1
10915	12378-PeCDD	40321-76-4	10.4	U	10.4	0.553	1
10915	123478-HxCDD	39227-28-6	10.4	U	10.4	0.791	1
10915	123678-HxCDD	57653-85-7	2.08	JB	10.4	0.874	1
10915	123789-HxCDD	19408-74-3	1.57	JB	10.4	0.805	1
10915	1234678-HpCDD	35822-46-9	29.4	B	10.4	1.57	1
10915	OCDD	3268-87-9	157	B	20.8	1.60	1
10915	2378-TCDF	51207-31-9	2.08	U	2.08	0.252	1
10915	12378-PeCDF	57117-41-6	10.4	U	10.4	0.303	1
10915	23478-PeCDF	57117-31-4	0.761	JBQ	10.4	0.272	1
10915	123478-HxCDF	70648-26-9	10.4	U	10.4	0.574	1
10915	123678-HxCDF	57117-44-9	0.613	JBQ	10.4	0.562	1
10915	123789-HxCDF	72918-21-9	2.78	JBQ	10.4	0.679	1
10915	234678-HxCDF	60851-34-5	10.4	U	10.4	0.549	1
10915	1234678-HpCDF	67562-39-4	2.52	JBQ	10.4	0.796	1
10915	1234789-HpCDF	55673-89-7	1.08	JB	10.4	1.01	1
10915	OCDF	39001-02-0	6.09	JB	20.8	1.12	1
D/F Toxic Equivalents	**EPA 1613B October 1994**		**pg/l**		**pg/l**	**pg/l**	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	0.718				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	82	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	68	17 - 157
13C12-2378-TCDF	76	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	71	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	67	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	60	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range

*=This limit was used in the evaluation of the final result

Sample Description: EB1-061814 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7504496
LL Group # 1483089
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/18/2014 15:00 by SM

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3201 Jermantown Road
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Fairfax VA 22030

EB118 SDG#: PH237-04EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Dilution Factor

C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

Sample Description: EB1-061814 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7504496
LL Group # 1483089
Account # 13013

Project Name: SSFL Phase 3 Sampling

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EB118 SDG#: PH237-04EB*

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y141811AA	06/30/2014 11:21	Sarah A Guill	1
00527	13b 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E141712AA	06/20/2014 21:53	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	E141712AA	06/20/2014 21:53	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Y141811AA	06/30/2014 11:21	Sarah A Guill	1
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	14171WAC026	06/27/2014 04:11	Chad A Moline	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	14171WAC026	06/20/2014 16:00	Seth A Farrier	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	14170B94A	06/20/2014 15:48	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14170B94A	06/20/2014 15:48	Laura M Krieger	1
13092	21b PCBs and PCTs 8082A	SW-846 8082A	1	141750008A	06/25/2014 19:44	Monica M Souders	1
13093	PCB/PCT Waters Update IV	SW-846 3510C	1	141750008A	06/24/2014 15:00	Seth A Farrier	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	141740019A	06/25/2014 20:06	Heather E Williams	1
13205	10b TPH-DRO (w/Si Gel)	SW-846 8015B modified	1	141740020A	06/26/2014 15:39	Heather E Williams	1
13212	EFH Water Ext. w/SiGel	SW-846 3510C	1	141740020A	06/24/2014 03:00	Sherry L Morrow	1
11203	EFH Waters Extraction	SW-846 3510C	1	141740019A	06/24/2014 03:00	Sherry L Morrow	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B October 1994	1	14177002	07/01/2014 12:00	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B October 1994	1	14177002	06/26/2014 09:35	Brett M Weidman	1
01743	Aluminum	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1
07044	Antimony	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1
07035	Arsenic	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1
07046	Barium	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1
07047	Beryllium	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1
08014	Boron	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1
07049	Cadmium	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1
01750	Calcium	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1
07051	Chromium	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1
07052	Cobalt	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1
07053	Copper	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1
01754	Iron	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1
07055	Lead	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1
01756	Lithium	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1
01757	Magnesium	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1
07058	Manganese	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1
07060	Molybdenum	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1
07061	Nickel	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: EB1-061814 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7504496
LL Group # 1483089
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 06/18/2014 15:00 by SM

Submitted: 06/19/2014 09:20
Reported: 07/03/2014 08:56

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB118 SDG#: PH237-04EB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10143	Phosphorus	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1
01762	Potassium	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1
01767	Sodium	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1
07069	Tin	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1
07070	Titanium	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1
07071	Vanadium	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1
07072	Zinc	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1
10144	Zirconium	SW-846 6010C	1	141780635002	06/30/2014 20:49	John P Hook	1
06041	Selenium	SW-846 6020A	1	141780639001B	07/01/2014 10:42	Choon Y Tian	1
06042	Silver	SW-846 6020A	1	141780639001A	07/01/2014 10:42	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	141780639001A	07/01/2014 10:42	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	141780639001A	07/01/2014 10:42	Choon Y Tian	1
00259	3b Mercury 7470A	SW-846 7470A	1	141785713006	06/30/2014 12:53	Damary Valentin	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	141780635002	06/30/2014 10:16	Micaela L Dishong	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	141780639001	06/30/2014 09:35	Micaela L Dishong	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	141785713006	06/30/2014 08:40	Damary Valentin	1
12152	28b pH (9040B and 9040C)	SW-846 9040C	1	14170121521B	06/19/2014 20:00	Luz M Groff	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1483089
Reported: 07/03/14 at 08:56 AM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: E141712AA	Sample number(s): 7504496								
1,4-Dioxane	2.0 U	2.0	0.5	ug/l	103	101	80-123	3	30
Batch number: Y141811AA	Sample number(s): 7504496								
Acetone	20 U	20.	6	ug/l	100	97	43-149	3	30
Acrolein	100 U	100.	40	ug/l	74	74	52-129	0	30
Acrylonitrile	20 U	20.	4	ug/l	97	96	62-120	1	30
t-Amyl methyl ether	1 U	1.	0.5	ug/l	98	99	75-120	1	30
Benzene	1 U	1.	0.5	ug/l	101	102	78-120	0	30
Bromobenzene	5 U	5.	1	ug/l	99	99	80-120	0	30
Bromochloromethane	5 U	5.	1	ug/l	98	100	80-121	3	30
Bromodichloromethane	1 U	1.	0.5	ug/l	99	99	73-120	0	30
Bromoform	4 U	4.	0.5	ug/l	87	86	61-120	2	30
Bromomethane	1 U	1.	0.5	ug/l	92	92	58-120	0	30
2-Butanone	10 U	10.	3	ug/l	105	104	54-133	1	30
t-Butyl alcohol	50 U	50.	5	ug/l	118	118	75-120	0	30
n-Butylbenzene	5 U	5.	1	ug/l	104	104	68-120	0	30
sec-Butylbenzene	5 U	5.	1	ug/l	105	105	80-120	0	30
tert-Butylbenzene	5 U	5.	1	ug/l	102	100	73-120	1	30
Carbon Disulfide	5 U	5.	1	ug/l	84	84	58-126	1	30
Carbon Tetrachloride	1 U	1.	0.5	ug/l	104	102	74-130	2	30
Chlorobenzene	1 U	1.	0.5	ug/l	101	102	80-120	1	30
Chloroethane	1 U	1.	0.5	ug/l	83	84	56-120	1	30
2-Chloroethyl Vinyl Ether	10 U	10.	2	ug/l	99	100	54-126	1	30
Chloroform	1 U	1.	0.5	ug/l	105	104	80-122	1	30
1-Chlorohexane	5 U	5.	1	ug/l	101	103	80-120	1	30
Chloromethane	1 U	1.	0.5	ug/l	96	97	63-120	1	30
2-Chlorotoluene	5 U	5.	1	ug/l	99	99	80-120	0	30
4-Chlorotoluene	5 U	5.	1	ug/l	99	100	80-120	1	30
Chlorotrifluoroethene	5 U	5.	2	ug/l	48	49	47-120	2	30
1,2-Dibromo-3-chloropropane	5 U	5.	2	ug/l	104	101	56-120	2	30
Dibromochloromethane	1 U	1.	0.5	ug/l	92	91	72-120	1	30
1,2-Dibromoethane	1 U	1.	0.5	ug/l	106	106	76-120	1	30
Dibromomethane	1 U	1.	0.5	ug/l	101	102	80-120	1	30
1,2-Dichlorobenzene	5 U	5.	1	ug/l	99	99	80-120	0	30
1,3-Dichlorobenzene	5 U	5.	1	ug/l	99	98	80-120	1	30
1,4-Dichlorobenzene	5 U	5.	1	ug/l	100	100	80-120	0	30
Dichlorodifluoromethane	1 U	1.	0.5	ug/l	74	74	48-132	0	30
1,1-Dichloroethane	1 U	1.	0.5	ug/l	104	105	80-120	1	30
1,2-Dichloroethane	1 U	1.	0.5	ug/l	111	111	65-135	0	30
1,1-Dichloroethene	1 U	1.	0.5	ug/l	98	98	76-124	0	30
cis-1,2-Dichloroethene	1 U	1.	0.5	ug/l	104	104	80-120	0	30
trans-1,2-Dichloroethene	1 U	1.	0.5	ug/l	101	104	80-120	3	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1483089
Reported: 07/03/14 at 08:56 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,2-Dichloropropane	1	U	1.	0.5	ug/l	100	101	80-120	1	30
1,3-Dichloropropane	1	U	1.	0.5	ug/l	103	104	80-120	1	30
2,2-Dichloropropane	1	U	1.	0.5	ug/l	108	109	67-124	1	30
1,1-Dichloropropene	5	U	5.	1	ug/l	106	107	80-120	1	30
cis-1,3-Dichloropropene	1	U	1.	0.5	ug/l	97	98	80-120	1	30
trans-1,3-Dichloropropene	1	U	1.	0.5	ug/l	100	102	76-120	2	30
Ethyl t-butyl ether	1	U	1.	0.5	ug/l	101	101	74-120	0	30
Ethylbenzene	1	U	1.	0.5	ug/l	100	100	79-120	0	30
Freon 113	10	U	10.	2	ug/l	84	83	67-127	1	30
Freon 133a	5	U	5.	2	ug/l	104	105	46-152	1	30
Hexachlorobutadiene	5	U	5.	2	ug/l	98	98	51-125	1	30
2-Hexanone	10	U	10.	3	ug/l	101	101	44-126	0	30
di-Isopropyl ether	1	U	1.	0.5	ug/l	104	106	65-120	2	30
Isopropylbenzene	5	U	5.	1	ug/l	101	101	77-120	0	30
p-Isopropyltoluene	5	U	5.	1	ug/l	103	103	80-120	0	30
Methyl Iodide	1	U	1.	0.5	ug/l	96	97	75-128	1	30
Methyl Tertiary Butyl Ether	1	U	1.	0.5	ug/l	102	101	75-120	0	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	102	102	51-124	0	30
Methylene Chloride	3	U	3.	2	ug/l	103	104	80-120	0	30
n-Propylbenzene	5	U	5.	1	ug/l	105	104	80-120	1	30
Styrene	5	U	5.	1	ug/l	99	100	80-120	0	30
1,1,1,2-Tetrachloroethane	1	U	1.	0.5	ug/l	100	102	80-120	2	30
1,1,2,2-Tetrachloroethane	1	U	1.	0.5	ug/l	103	102	70-120	1	30
Tetrachloroethene	1	U	1.	0.5	ug/l	99	100	80-120	0	30
Toluene	1	U	1.	0.5	ug/l	103	104	80-120	1	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	99	99	58-126	1	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	99	98	65-120	1	30
1,1,1-Trichloroethane	1	U	1.	0.5	ug/l	98	99	66-126	1	30
1,1,2-Trichloroethane	1	U	1.	0.5	ug/l	101	101	80-120	0	30
Trichloroethene	1	U	1.	0.5	ug/l	103	102	80-120	1	30
Trichlorofluoromethane	1	U	1.	0.5	ug/l	84	84	65-130	0	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	104	104	76-120	0	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	104	104	74-120	0	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	104	103	74-120	1	30
Vinyl Acetate	10	U	10.	2	ug/l	47*	48*	56-135	1	30
Vinyl Chloride	1	U	1.	0.5	ug/l	90	92	63-120	2	30
m+p-Xylene	1	U	1.	0.5	ug/l	99	100	80-120	0	30
o-Xylene	1	U	1.	0.5	ug/l	98	99	80-120	1	30
Batch number: 14171WAC026	Sample number(s): 7504496									
Acenaphthene	0.050	U	0.050	0.010	ug/l	102	105	83-119	3	30
Acenaphthylene	0.050	U	0.050	0.010	ug/l	92	95	81-130	4	30
Anthracene	0.050	U	0.050	0.010	ug/l	99	101	83-125	1	30
Benzo(a)anthracene	0.050	U	0.050	0.010	ug/l	93	92	79-122	1	30
Benzo(a)pyrene	0.050	U	0.050	0.010	ug/l	96	98	80-121	2	30
Benzo(b)fluoranthene	0.050	U	0.050	0.010	ug/l	101	101	79-136	0	30
Benzo(e)pyrene	0.050	U	0.050	0.010	ug/l	95	96	67-118	2	30
Benzo(g,h,i)perylene	0.050	U	0.050	0.010	ug/l	99	98	72-132	1	30
Benzo(k)fluoranthene	0.050	U	0.050	0.010	ug/l	98	100	81-131	2	30
Butylbenzylphthalate	1.0	U	1.0	0.050	ug/l	80	81	40-138	1	30
Di-n-butylphthalate	0.057	J	1.0	0.050	ug/l	84	97	64-141	14	30
Chrysene	0.050	U	0.050	0.010	ug/l	99	99	84-118	0	30
Dibenz(a,h)anthracene	0.050	U	0.050	0.010	ug/l	98	91	66-133	7	30
Diethylphthalate	1.0	U	1.0	0.050	ug/l	90	93	64-137	4	30
Dimethylphthalate	1.0	U	1.0	0.050	ug/l	86	91	23-139	6	30
Bis(2-Ethylhexyl)phthalate	0.11	J	1.0	0.050	ug/l	91	83	70-143	9	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1483089
Reported: 07/03/14 at 08:56 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Fluoranthene	0.050	U	0.050	0.010	ug/l	91	93	84-124	2	30
Fluorene	0.050	U	0.050	0.010	ug/l	94	97	82-119	3	30
Indeno(1,2,3-cd)pyrene	0.050	U	0.050	0.010	ug/l	95	93	68-132	2	30
1-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	91	92	86-130	1	30
2-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	88	90	81-131	2	30
Naphthalene	0.050	U	0.050	0.030	ug/l	94	94	82-122	0	30
N-Nitrosodimethylamine	0.050	U	0.050	0.010	ug/l	80	84	56-96	5	30
Di-n-octylphthalate	1.0	U	1.0	0.050	ug/l	81	67	57-145	19	30
Phenanthrene	0.050	U	0.050	0.030	ug/l	97	99	83-116	2	30
Pyrene	0.050	U	0.050	0.010	ug/l	91	94	78-125	3	30
Batch number: 14174SLA026	Sample number(s): 7504495									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	111		84-118		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	105		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	103		85-118		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	110		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	101		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	110		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	96		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	98		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	105		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	100		75-144		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	98		75-148		
Chrysene	1.7	U	1.7	0.33	ug/kg	112		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	101		83-123		
Diethylphthalate	18	U	18.	6.0	ug/kg	105		73-147		
Dimethylphthalate	18	U	18.	6.0	ug/kg	105		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	102		68-146		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	110		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	113		84-120		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	98		82-123		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	105		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	107		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	103		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	108		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	99		71-148		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	102		83-113		
Pyrene	1.7	U	1.7	0.67	ug/kg	101		80-119		
Batch number: 14170B94A	Sample number(s): 7504496									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	94	93	80-133	1	30
Batch number: 141720009A	Sample number(s): 7504494-7504495									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	96	98	36-106	2	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	101		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	106		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1483089
Reported: 07/03/14 at 08:56 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 141750008A	Sample number(s): 7504496									
Aroclor 5432	0.40	U	0.40	0.080	ug/l					
Aroclor 5442	0.40	U	0.40	0.080	ug/l	84	48	34-115	55*	30
Aroclor 5460	0.40	U	0.40	0.088	ug/l					
PCB-1016	0.40	U	0.40	0.080	ug/l	94	97	60-117	4	30
PCB-1221	0.40	U	0.40	0.080	ug/l					
PCB-1232	0.40	U	0.40	0.16	ug/l					
PCB-1242	0.40	U	0.40	0.080	ug/l					
PCB-1248	0.40	U	0.40	0.080	ug/l					
PCB-1254	0.40	U	0.40	0.080	ug/l					
PCB-1260	0.40	U	0.40	0.12	ug/l	103	107	67-128	4	30
PCB-1262	0.40	U	0.40	0.16	ug/l					
PCB-1268	0.40	U	0.40	0.13	ug/l					
Batch number: 141700025A	Sample number(s): 7504493-7504495									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	98		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	100		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	98		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	62		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	84		60-115		
Batch number: 141740019A	Sample number(s): 7504496									
EFH (C12-C14)	0.10	U	0.10	0.050	mg/l	94	94	67-109	0	30
EFH (C15-C20)	0.10	U	0.10	0.050	mg/l	99	101	71-119	2	30
EFH (C21-C30)	0.10	U	0.10	0.050	mg/l	96	98	75-117	2	30
EFH (C30 - C40)	0.50	U	0.50	0.10	mg/l	49	68	44-134	32*	30
EFH (C8-C11)	0.10	U	0.10	0.050	mg/l	74	70	55-86	5	30
Batch number: 141740020A	Sample number(s): 7504496									
EFH C12-C14 w/ SiGel	0.10	U	0.10	0.050	mg/l	63*	62*	67-109	3	30
EFH C15-C20 w/ SiGel	0.10	U	0.10	0.050	mg/l	67*	67*	71-119	0	30
EFH C21-C30 w/ SiGel	0.10	U	0.10	0.050	mg/l	65*	66*	75-117	2	30
EFH C30-C40 w/ SiGel	0.50	U	0.50	0.10	mg/l	32*	51	44-134	45*	30
EFH C8-C11 w/ SiGel	0.10	U	0.10	0.050	mg/l	47*	44*	55-86	5	30
Batch number: 141770026A	Sample number(s): 7504493-7504495									
EFH C12-C14 w/ SiGel	5.0	U	5.0	2.0	mg/kg	92		76-115		
EFH C15-C20 w/ SiGel	5.0	U	5.0	2.0	mg/kg	94		78-127		
EFH C21-C30 w/ SiGel	5.0	U	5.0	2.0	mg/kg	95		77-127		
EFH C30-C40 w/ SiGel	10	U	10.	4.0	mg/kg	95		44-134		
EFH C8-C11 w/ SiGel	5.0	U	5.0	2.0	mg/kg	74		60-115		
Batch number: 141750637001	Sample number(s): 7504494-7504495									
Aluminum	40.0	U	40.0	4.54	mg/kg	107		80-120		
Antimony	4.00	U	4.00	0.330	mg/kg	106		80-120		
Arsenic	4.00	U	4.00	0.640	mg/kg	105		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	99		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	102		80-120		
Boron	10.0	U	10.0	0.840	mg/kg	96		80-120		
Cadmium	1.00	U	1.00	0.0330	mg/kg	103		80-120		
Calcium	10.7	J	20.0	3.79	mg/kg	109		80-120		
Chromium	3.00	U	3.00	0.110	mg/kg	99		80-120		
Cobalt	1.00	U	1.00	0.0960	mg/kg	104		80-120		
Copper	2.00	U	2.00	0.330	mg/kg	103		80-120		
Iron	40.0	U	40.0	3.34	mg/kg	107		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	102		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1483089
Reported: 07/03/14 at 08:56 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Lithium	4.0	U	4.0	0.64	mg/kg	105		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	104		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	103		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	102		80-120		
Nickel	2.00	U	2.00	0.150	mg/kg	106		80-120		
Phosphorus	1.76	J	10.0	0.320	mg/kg	101		80-120		
Potassium	100 U		100.	13.0	mg/kg	104		80-120		
Sodium	100 U		100.	16.7	mg/kg	104		80-120		
Tin	1.49	J	10.0	0.430	mg/kg	102		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	100		80-120		
Vanadium	1.00	U	1.00	0.0910	mg/kg	98		80-120		
Zinc	4.00	U	4.00	0.260	mg/kg	100		80-120		
Zirconium	5.00	U	5.00	0.810	mg/kg	103		80-120		
Batch number: 141750637001A	Sample number(s): 7504494-7504495									
Silver	0.200	U	0.200	0.0200	mg/kg	101		80-120		
Strontium	0.0581	J	0.400	0.0572	mg/kg	105		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	103		80-120		
Batch number: 141750637001B	Sample number(s): 7504494-7504495									
Selenium	0.400	U	0.400	0.100	mg/kg	97		80-120		
Batch number: 141780635002	Sample number(s): 7504496									
Aluminum	0.400	U	0.400	0.0674	mg/l	110	107	90-112	3	20
Antimony	0.0400	U	0.0400	0.0051	mg/l	105	104	88-111	1	20
Arsenic	0.0400	U	0.0400	0.0072	mg/l	106	107	90-113	0	20
Barium	0.0100	U	0.0100	0.00033	mg/l	104	103	90-110	1	20
Beryllium	0.0100	U	0.0100	0.00067	mg/l	102	99	90-111	2	20
Boron	0.100	U	0.100	0.0046	mg/l	98	97	90-110	1	20
Cadmium	0.0100	U	0.0100	0.00033	mg/l	105	105	90-112	0	20
Calcium	0.400	U	0.400	0.0334	mg/l	107	105	90-112	2	20
Chromium	0.0300	U	0.0300	0.0013	mg/l	102	100	90-110	2	20
Cobalt	0.0100	U	0.0100	0.0010	mg/l	105	105	90-114	0	20
Copper	0.0200	U	0.0200	0.0028	mg/l	107	106	90-112	2	20
Iron	0.400	U	0.400	0.0334	mg/l	108	106	90-112	1	20
Lead	0.0300	U	0.0300	0.0047	mg/l	107	108	88-116	1	20
Lithium	0.0400	U	0.0400	0.0046	mg/l	105	104	90-110	1	20
Magnesium	0.200	U	0.200	0.0167	mg/l	107	105	89-110	2	20
Manganese	0.0011	J	0.0100	0.00083	mg/l	104	103	90-110	1	20
Molybdenum	0.0200	U	0.0200	0.0017	mg/l	105	106	90-110	0	20
Nickel	0.0200	U	0.0200	0.0016	mg/l	109	109	90-117	0	20
Phosphorus	0.200	U	0.200	0.0050	mg/l	103	103	90-110	0	20
Potassium	1.00	U	1.00	0.133	mg/l	108	106	90-110	2	20
Sodium	2.00	U	2.00	0.167	mg/l	107	105	87-114	2	20
Tin	0.0400	U	0.0400	0.0024	mg/l	101	100	90-110	0	20
Titanium	0.0200	U	0.0200	0.0017	mg/l	104	102	90-113	2	20
Vanadium	0.0100	U	0.0100	0.0019	mg/l	107	105	90-110	2	20
Zinc	0.0400	U	0.0400	0.0020	mg/l	103	103	90-110	0	20
Zirconium	0.100	U	0.100	0.0081	mg/l	106	105	90-110	2	20
Batch number: 141780638002	Sample number(s): 7504494-7504495									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	90		85-120		
Batch number: 141780639001A	Sample number(s): 7504496									

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1483089
Reported: 07/03/14 at 08:56 AM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Silver	0.0010 U	0.0010	0.00013	mg/l	102	107	90-115	5	20
Strontium	0.0020 U	0.0020	0.00031	mg/l	102	106	90-110	4	20
Thallium	0.0010 U	0.0010	0.00015	mg/l	104	104	90-115	1	20
Batch number: 141780639001B	Sample number(s): 7504496								
Selenium	0.0040 U	0.0040	0.00050	mg/l	104	106	90-114	2	20
Batch number: 141785713006	Sample number(s): 7504496								
3b Mercury 7470A	0.00020 U	0.00020	0.00006 0	mg/l	100	101	90-115	0	20
Batch number: 14170039401A	Sample number(s): 7504494-7504495								
15a pH by 9045D					100		95-105		
Batch number: 14170121521B	Sample number(s): 7504496								
28b pH (9040B and 9040C)					100		90-110		
Batch number: 14174162401B	Sample number(s): 7504493-7504495								
14a Moisture Content by 160.3					100		80-120		

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 14177002	Sample number(s): 7504496								
2378-TCDD	2.00 U	2.00	0.510	pg/l	108		60-150		
12378-PeCDD	10.0 U	10.0	0.380	pg/l	106		60-150		
123478-HxCDD	10.0 U	10.0	0.256	pg/l	105		60-150		
123678-HxCDD	0.492 J	10.0	0.273	pg/l	106		60-150		
123789-HxCDD	0.308 J	10.0	0.240	pg/l	104		60-150		
1234678-HpCDD	4.82 J	10.0	0.324	pg/l	105		60-150		
OCDD	32.9	20.0	0.252	pg/l	98		60-150		
2378-TCDF	2.00 U	2.00	0.272	pg/l	108		60-150		
12378-PeCDF	10.0 U	10.0	0.170	pg/l	109		60-150		
23478-PeCDF	0.312 J	10.0	0.142	pg/l	107		60-150		
123478-HxCDF	0.326 J	10.0	0.198	pg/l	106		60-150		
123678-HxCDF	0.343 J	10.0	0.196	pg/l	107		60-150		
123789-HxCDF	0.237 J	10.0	0.185	pg/l	101		60-150		
234678-HxCDF	0.174 J	10.0	0.171	pg/l	103		60-150		
1234678-HpCDF	0.721 J	10.0	0.103	pg/l	104		60-150		
1234789-HpCDF	0.278 J	10.0	0.0999	pg/l	105		60-150		
OCDF	2.02 J	20.0	0.232	pg/l	99		60-150		
TEQ WHO 2005 - EDLx0.0	0.0587			pg/l					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

	MS	MSD	MS/MSD	RPD	BKG	DUP	DUP	Dup RPD

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1483089
Reported: 07/03/14 at 08:56 AM

Analysis Name	%REC	%REC	Limits	RPD	MAX	Conc	Conc	RPD	Max
Batch number: 14174SLA026	Sample number(s): 7504495 UNSPK: P502707								
Acenaphthene	104	104	48-127	1	30				
Acenaphthylene	103	103	60-128	0	30				
Anthracene	103	102	52-126	0	30				
Benzo(a)anthracene	110	107	44-143	2	30				
Benzo(a)pyrene	95	95	49-137	0	30				
Benzo(b)fluoranthene	123	123	26-142	0	30				
Benzo(e)pyrene	98	98	63-111	0	30				
Benzo(g,h,i)perylene	48	45	33-141	5	30				
Benzo(k)fluoranthene	106	107	49-144	0	30				
Butylbenzylphthalate	115	119	64-156	4	30				
Di-n-butylphthalate	107	105	52-147	1	30				
Chrysene	106	103	43-141	3	30				
Dibenz(a,h)anthracene	59	57	25-145	4	30				
Diethylphthalate	101	101	66-140	0	30				
Dimethylphthalate	98	101	70-123	2	30				
Bis(2-Ethylhexyl)phthalate	107	110	48-164	3	30				
Fluoranthene	108	109	38-153	1	30				
Fluorene	108	108	57-130	0	30				
Indeno(1,2,3-cd)pyrene	55	53	26-139	5	30				
1-Methylnaphthalene	104	104	59-139	0	30				
2-Methylnaphthalene	107	107	46-147	1	30				
Naphthalene	103	103	52-136	0	30				
N-Nitrosodimethylamine	105	105	39-134	1	30				
Di-n-octylphthalate	172*	178*	52-162	3	30				
Phenanthrene	100	101	50-137	0	30				
Pyrene	102	103	26-143	0	30				
Batch number: 141720009A	Sample number(s): 7504494-7504495 UNSPK: P501188								
PCB-1016	99	104	41-135	5	50				
PCB-1260	102	112	40-134	10	50				
Batch number: 141700025A	Sample number(s): 7504493-7504495 UNSPK: P501188								
EFH (C12-C14)	107	126*	49-123	16	20				
EFH (C15-C20)	127*	137*	49-123	7	20				
EFH (C21-C30)	-71*	-43*	49-123	14	20				
EFH (C30-C40)	-318 (2)	-264 (2)	49-123	21*	20				
EFH (C8-C11)	87	91	49-123	3	20				
Batch number: 141770026A	Sample number(s): 7504493-7504495 UNSPK: P501188								
EFH C12-C14 w/ SiGel	82	88	49-123	8	20				
EFH C15-C20 w/ SiGel	78	81	49-123	4	20				
EFH C21-C30 w/ SiGel	-82*	-58*	49-123	19	20				
EFH C30-C40 w/ SiGel	-262 (2)	-217 (2)	49-123	22*	20				
EFH C8-C11 w/ SiGel	58	63	49-123	9	20				
Batch number: 141750637001	Sample number(s): 7504494-7504495 UNSPK: P502707 BKG: P502707								
Aluminum	1388 (2)	1481 (2)	75-125	1	20	13,000	13,000	0	20
Antimony	47*	43*	75-125	9	20	4.00 U	4.00 U	0 (1)	20
Arsenic	100	99	75-125	1	20	6.84	6.07	12 (1)	20
Barium	95	94	75-125	1	20	90.4	80.5	12	20
Beryllium	100	99	75-125	1	20	0.539 J	0.530 J	2 (1)	20
Boron	97	94	75-125	3	20	3.69 J	2.32 J	46* (1)	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1483089
Reported: 07/03/14 at 08:56 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Cadmium	93	93	75-125	1	20	1.00 U	1.00 U	0 (1)	20
Calcium	-182 (2)	-374 (2)	75-125	17	20	5,620	3,430	49*	20
Chromium	110	99	75-125	6	20	14.0	13.8	2 (1)	20
Cobalt	94	95	75-125	1	20	6.24	4.66	29* (1)	20
Copper	101	100	75-125	1	20	10.8	9.08	17 (1)	20
Iron	-94 (2)	632 (2)	75-125	4	20	19,200	18,700	3	20
Lead	89	88	75-125	0	20	13.7	13.8	1 (1)	20
Lithium	104	106	75-125	1	20	22.5	23.4	4	20
Magnesium	156 (2)	162 (2)	75-125	0	20	4,180	4,010	4	20
Manganese	14 (2)	23 (2)	75-125	1	20	340	305	11	20
Molybdenum	96	96	75-125	0	20	0.660 J	0.313 J	71* (1)	20
Nickel	98	98	75-125	0	20	8.63	8.34	3 (1)	20
Phosphorus	260 (2)	50 (2)	75-125	37*	20	403	366	10	20
Potassium	121	128*	75-125	2	20	3,570	3,470	3	20
Sodium	103	103	75-125	0	20	65.8 J	65.8 J	0 (1)	20
Tin	91	91	75-125	1	20	3.43 J	3.28 J	4 (1)	20
Titanium	321 (2)	271 (2)	75-125	4	20	894	931	4	20
Vanadium	108	98	75-125	6	20	29.7	29.0	2	20
Zinc	94	94	75-125	0	20	57.0	52.6	8	20
Zirconium	96	96	75-125	0	20	2.13 J	2.04 J	5 (1)	20
Batch number: 141750637001A	Sample number(s): 7504494-7504495 UNSPK: P502707 BKG: P502707								
Silver	144*	117	75-125	21*	20	0.0260 J	0.0423 J	48* (1)	20
Strontium	152 (2)	26 (2)	75-125	24*	20	34.3	22.8	40*	20
Thallium	158*	114	75-125	21*	20	0.279	0.258	8 (1)	20
Batch number: 141750637001B	Sample number(s): 7504494-7504495 UNSPK: P502707 BKG: P502707								
Selenium	131*	113	75-125	14	20	0.196 J	0.155 J	23* (1)	20
Batch number: 141780638002	Sample number(s): 7504494-7504495 UNSPK: 7504494 BKG: 7504494								
3a Mercury 7471A	94	92	65-135	1	20	0.0407	0.0376	8 (1)	20
Batch number: 14170039401A	Sample number(s): 7504494-7504495 BKG: 7504494								
15a pH by 9045D						5.92	5.89	1	3
Batch number: 14170121521B	Sample number(s): 7504496 BKG: P505586								
28b pH (9040B and 9040C)						6.6	6.6	0	3
Batch number: 14174162401B	Sample number(s): 7504493-7504495 BKG: 7504493								
14a Moisture Content by 160.3						1.4	1.4	2	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 13b 1,4-Dioxane by 8260B SIM
Batch number: E141712AA

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1483089
Reported: 07/03/14 at 08:56 AM

Surrogate Quality Control

	Toluene-d8
7504496	97
Blank	98
LCS	98
LCSD	98
Limits:	80-120

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y141811AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7504496	101	100	100	98
Blank	101	101	101	98
LCS	101	100	101	100
LCSD	101	100	102	101
Limits:	86-118	80-120	88-110	86-115

Analysis Name: 7b SVOC SIM EPA 8270D
Batch number: 14171WAC026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7504496	94	105	92
Blank	101	115	93
LCS	97	111	94
LCSD	98	113	94
Limits:	59-128	62-141	70-134

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 14174SLA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7504495	116*	110	108
Blank	111	114	100
LCS	110	115	99
MS	112	110	99
MSD	112	109	98
Limits:	59-115	61-118	70-127

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 14170B94A

	Trifluorotoluene-F
7504496	88
Blank	82
LCS	93
LCSD	91
Limits:	63-135

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1483089
Reported: 07/03/14 at 08:56 AM

Surrogate Quality Control

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 141720009A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7504494	113	105
7504495	123*	113
Blank	120	109
LCS	120	107
LCSD	131*	129*
MS	122*	105
MSD	124*	114
Limits:	45-120	45-120

Analysis Name: 21b PCBs and PCTs 8082A
Batch number: 141750008A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7504496	119	81
Blank	102	109
LCS	110	89
LCSD	118	105
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 141700025A

	Chlorobenzene	Orthoterphenyl
7504493	97	101
7504494	85	87
7504495	77	98
Blank	73	89
LCS	79	97
MS	79	95
MSD	98	104
Limits:	37-125	66-123

Analysis Name: 10b TPH by EPA 8015B (DRO)
Batch number: 141740019A

	Chlorobenzene	Orthoterphenyl
7504496	108	100
Blank	69	94
LCS	68	93
LCSD	103	95
Limits:	45-126	69-119

Analysis Name: 10b TPH-DRO (w/Si Gel)
Batch number: 141740020A

	Chlorobenzene	Orthoterphenyl
7504496	63	72

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1483089
Reported: 07/03/14 at 08:56 AM

Surrogate Quality Control

Blank	59	72
LCS	52	66*
LCSD	52	64*
Limits:	45-126	69-119

Analysis Name: 37a TPH-EFH w/Si Gel
Batch number: 141770026A

	Chlorobenzene	Orthoterphenyl
7504493	74	83
7504494	68	72
7504495	75	81
Blank	69	74
LCS	88	96
MS	69	78
MSD	74	80
Limits:	37-125	66-123

Analysis Name: 17b Dioxin/Furan by EPA 1613B
Batch number: 14177002

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
7504496	82	77	84	83	82	76
Blank	80	84	83	83	87	107
OPR	74	76	80	82	81	82
Limits:	25-164	25-181	32-141	28-130	28-130	23-140

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
7504496	68	76	70	69	71	74
Blank	134	92	83	90	84	89
OPR	87	82	88	87	87	86
Limits:	17-157	24-169	24-185	21-178	26-152	26-123

	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF
7504496	71	68	67	63	60
Blank	91	100	105	122	133
OPR	86	98	90	87	90
Limits:	28-136	29-147	28-143	26-138	17-157

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SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/18/2014
CarrierName: FedEx
AirbillNo: 770345474930

A-13013
G-1483089
S-7504493-96

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20140618-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
FDG2-SL-573-NBZ-SB-0.0-0.5	6/18/14 09:40	SO	None	1 - SS-Sleeve	10 day																				X																
FDG2-SL-574-NBZ-SB-0.0-0.5	6/18/14 08:20	SO	None	2 - SS-Sleeve	10 day	X	X								X										X																
FDG2-SL-574-NBZ-SB-0.0-0.5	6/18/14 08:20	SO	None	1 - 4 oz glass	10 day													X																						
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/14 07:55	SO	None	2 - SS-Sleeve	10 day	X	X					X			X										X																
FDG2-SL-575-NBZ-SB-0.0-0.5	6/18/14 07:55	SO	None	1 - 4 oz glass	10 day													X																						

Special Instructions: For all EFH, silica gel cleanup required on half the extract. Analyze both extracts for EFH.

Sampler: Sandy Do

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Stacy Mupelod	6/18/14	16:00									
										6/19/14	0920

Final Data Gap Block 2 1 of 2

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/18/2014
CarrierName: FedEx
AirbillNo: 770345474930

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

A-13013
G-1483089
S-7504493-96

COC No: 20140618-02
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Mercury Speciation 3200	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other
EB1-061814	6/18/14 15:00	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	X		X																																	
EB1-061814	6/18/14 15:00	WQ	None	2 - 250 mL Amber	10 day							X			X																											
EB1-061814	6/18/14 15:00	WQ	None	2 - 1 L Amber	10 day									X																											
EB1-061814	6/18/14 15:00	WQ	None	1 - 250 mL Poly	10 day														X																					
EB1-061814	6/18/14 15:00	WQ	HCl	9 - 40 mL Vial	10 day																		X	X	X															
EB1-061814	6/18/14 15:00	WQ	HCl	2 - 1 L Amber	10 day																					X														

For all EFH, silica gel cleanup required on half the extract. Analyze both extracts for EFH.

Special Instructions:

Sampler: Steph Mupell

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Steph Mupell	06/18/14	1600									
									CEsh	6/19/14	0820

Final Data Gap Block 2 2 of 2

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Sample Administration Receipt Documentation Log

Doc Log ID: 17842

Group Number(s): 1483089

Client: CDM SMITH

SSFL PHASE 3

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	06/19/2014 9:20
Number of Packages:	4	Number of Projects:	2
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Total Trip Blank Qty:	0
Custody Seal Present:	Yes	Trip Blank Type:	N/A
Custody Seal Intact:	Yes	Air Quality Samples Present:	No
Samples Chilled:	Yes	Air Quality Flow Controllers Present:	N/A
Paperwork Enclosed:	Yes	Flow Controller Quantity:	0
Samples Intact:	Yes	Air Quality Returns:	N/A
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		
Sample IDs on COC match Containers:	Yes		
Sample Date/Times match COC:	Yes		
VOA Vial Headspace ≥ 6mm:	No		
VOA IDs (≥ 6mm):	N/A		

Unpacked by Corey Eshleman (3647) at 11:13 on 06/19/2014

Samples Chilled Details: SSFL PHASE 3

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Samples Collected Same Day as Receipt?	Elevated Temp?
1	DT121	1.0	DT	Wet	Y	Bagged	N	N

2425 New Holland Pike
Lancaster, PA 17605-2425

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Appendix C
Data Usability Assessment Report and Data Validation Reports
(On CD)

Appendix C
Data Usability Assessment Report

The purpose of this data usability and assessment report (DUAR) is to summarize the data validation performed on the data set for Go-Backs, Trenches and Soil Vapor Location samples collected, and determine whether the sample results meet the Data Quality Objectives (DQOs) outlined in the following documents:

- *Master Field Sampling Plan for Chemical Data Gap Investigation Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California* (CDM Federal Programs Corporation [CDM Smith] 2012a) (Master Field Sampling Plan [FSP])
- *Addendum No. 10 to Master Field Sampling Plan for Chemical Data Gap Investigation, Phase 3 Go-Back Soil Chemical Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California, Subareas 5B,5C and 3/6* (CDM Smith 2014) (Addendum to the Master FSP)
- *Addendum No. 11 to Master Field Sampling Plan for Chemical Data Gap Investigation, Phase 3 Go-Back Soil Chemical Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California, Subareas 5A, 5D, 8 and Northern Buffer Zone (*CDM Smith 2014) (Addendum to the Master FSP)
- *Addendum No. 12 to Master Field Sampling Plan for Chemical Data Gap Investigation, Phase 3 Soil Vapor Implementation for Area IV, Santa Susana Field Laboratory* (MWH Americas, Inc. 2014a) (Addendum to the Master FSP)
- *Final Phase 3 Data Gap Analysis for Subareas 5B, 5C, 3/6, and 7 Technical Memorandum, Santa Susana Field Laboratory, Ventura County*, (MWH Americas, Inc. 2013)
- *Final Phase 3 Data Gap Analysis for Subareas 5A, 5D, and 8 and Northern Buffer Zone Technical Memorandum, Santa Susana Field Laboratory, Ventura County,* (MWH Americas, Inc. 2014)
- *Technical Memorandum Summary of Phase 3 Trench Investigation Activities in Area IV, Santa Susana Field Laboratory, Ventura County* (MWH September 2014)
- *Phase 3 Subarea 5A North Implementation Plan, Santa Susana Field Laboratory* (United States Department of Energy [DOE] 2013)

The Master FSP is Appendix A of *Work Plan for Chemical Data Gap Investigation, Phase 3 Soil Chemical Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California* (CDM Smith 2012b) (Work Plan), which also includes Appendix B, Quality Assurance Project Plan (QAPP); Appendix C, Worker Safety and Health Program; and Appendix D, Standard Operating Procedures (SOPs).

C.1 Usability Summary

For this data usability assessment, 65 data sets were reviewed for Go-Backs, Trenches and Soil Vapor Locations. A data set consists of 20 or fewer samples grouped together by analytical method for analyses depending on the time and date of when the samples were

received by the laboratory. A data set is called a sample delivery group (SDG). The analytical methods and procedures performed are discussed in Section 2.6 of the Go-Backs, Trenches and Soil Vapor Locations Technical Memorandum (TM).

Samples were collected and analyzed in accordance with the Master FSP (CDM Smith 2012a) and all Addendums listed above. Deviations were encountered during the field investigation sampling activities and are discussed in detail in Section 2.8 of the Go-Backs, Trenches and Soil Vapor Locations TM.

The validated data for Go-Backs, Trenches and Soil Vapor Location samples are usable as reported with the exception of one triethylene glycol result, 15 herbicide results in 10 samples and one SVOC result (2,6-dichlorophenol). This equates to 0.09057 percent of the results. These rejected results do not impact project objectives and goals. Specific details are provided in the validation reports in this appendix and below.

C.2 Data Validation Procedures

Data were validated by the independent data validation firm Laboratory Data Consultants, Inc. All data validation was conducted in accordance with *U.S. Environmental Protection Agency (EPA) Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (EPA 2004), *EPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (EPA 2008), and *EPA Contract Laboratory Program National Functional Guidelines for Chlorinated Dioxin/Furan Data Review* (EPA 2005).

The data validation strategy was to validate 10 percent of the data according to EPA Level IV protocols (all QC parameters and raw data) and the remaining 90 percent according to EPA Level III (all QC parameters except calibrations and raw data) protocols. The Level IV determination also included reviewing 10 percent for each laboratory and each method. In order to achieve this, the validators chose appropriate samples in each SDG. Hence, not all samples in some of the SDGs were Level IV validated but they received a mixture of Level IV and Level III review.

Table C-1 shows all SDGs and associated samples for Go-Backs, Trenches and Soil Vapor Location samples. Some SDGs may contain samples from other subareas but all samples in an SDG were validated together.

In order to evaluate the quality of the laboratory and the validation firm, CDM Smith chemists reviewed 10 percent of the Go-Backs, Trenches and Soil Vapor Location sample SDGs. The purpose of the review was to identify any quality control issues with the laboratory not identified by the validation firm or any discrepancies in validation procedures by the validation firm. No additional qualifiers were applied to the data based on CDM Smith's review.

C.3 Quality Assurance Objectives

Quality assurance (QA) objectives for measurement data are expressed in terms of precision, accuracy, representativeness, comparability, completeness, and sensitivity (PARCCS). The QA objectives provide a mechanism for evaluating and measuring data quality.

A review of the collected data is necessary to determine if DQOs established in the Master FSP (CDM Smith 2012a) have been met. The following data measurement tasks were evaluated:

- Specification and adherence to analytical method and reporting limit requirements
- Identification of the appropriate laboratory analytical QC requirements and verification that QC requirements were met
- Verification that measurement performance criteria (representativeness and completeness) for the data were met
- Verification that field procedures were followed, deviations were documented, and determination of impact on data quality from these deviations

The data validation review determines if the collected data are of sufficient quality to support their intended use.

C.4 Summary of Field and Laboratory QA Activities

CDM Smith completed sampling activities for Go-Backs, Trenches and Soil Vapor Location samples in accordance with the approved Master FSP (CDM Smith 2012a) and discussed in the TM. A total of 241 soil samples were collected and analyzed from the sample locations associated with Go-Backs, Trenches and Soil Vapor Locations. Tables 2-1, 2-2 and 2-3 in the TM provide a summary of the samples collected and the laboratory analyses requested.

An index of samples associated with each SDG is presented at the beginning of the data validation reports presented in this appendix. The Master FSP (CDM Smith 2012a) defined the procedures to be followed and the data quality requirements for the field sampling events.

C.5 Field Quality QA/QC

The matrix spike/matrix spike duplicates (MS/MSDs) and field duplicates samples were collected at a frequency of approximately 1 per 20 samples (5 percent). During sampling for Go-Backs, Trenches and Soil Vapor Location samples, a total of 13 field duplicate/MS/MSD samples were collected equating to approximately 5.2 to 5.8 percent for each sample type. On an individual method basis, the five percent goal was met or exceeded for all analyses. Field duplicate and MS/MSD samples met the frequency requirements detailed in the Master FSP (CDM Smith 2012a).

Twenty-four equipment rinsate blank samples were collected. The equipment rinsate blank results are presented in Table C-2.

Three field blanks were collected during sampling for Go-Backs, Trenches and Soil Vapor Locations. The results for these samples are presented in Table C-3.

Forty-six trip blank samples were shipped with the samples. The results for these samples are presented in Table C-4.

Data qualifications based on blank detections are discussed in Section C.7.3 and in the Appendix C validation reports.

Temperature blanks were included with each shipment of samples. Based on validation results, all temperature blanks for Go-Backs, Trenches and Soil Vapor Location samples met criteria.

As stated previously, on an individual method basis, the five percent goal was met or exceeded for all analyses. Field duplicate and MS/MSD samples met the frequency requirements detailed in the Master FSP (CDM Smith 2012a) for the Phase 3 Go-Backs, Trenches and Soil Vapor Location sampling program. Further, field QA/QC objectives were attained through the use of appropriate sampling techniques and collection of the required number and frequency of QC samples.

C.6 Laboratory Quality QA/QC

Analytical QA/QC was assessed by laboratory QC checks, method blanks, sample custody tracking, sample preservation, adherence to holding times, laboratory control samples (LCSs), MSs, calibration recoveries, surrogates, tuning criteria, second column confirmations, internal standards, serial dilutions, laboratory duplicates, and interference check standards. The majority of the laboratory QC sample criteria met project requirements as indicated in the data validation reports in this appendix with the appropriate qualifiers applied. For the Go-Backs, Trenches and Soil Vapor Locations one triethylene glycol result, 15 herbicide results in 10 samples and one SVOC result (2,6-dichlorophenol) were rejected. Specific details are provided in the validation reports in Appendix C and discussed below.

C.7 Data Quality Indicators

This section summarizes the validation performed. Individual SDG validation reports with specific sample detail are provided in this appendix.

Achievement of the DQOs was determined in part by the use of data quality indicators (DQIs) as described in the Master FSP (CDM Smith 2012a). These DQIs for measurement data are expressed in terms of PARCCS. The DQIs provide a mechanism for ongoing control to evaluate and measure data quality throughout the project. These criteria are defined in the sections below.

C.7.1 Precision

Precision is a quantitative term that estimates the reproducibility of a set of replicate measurements under a given set of conditions. It is defined as a measurement of mutual agreement between measurements of the same property and is expressed in terms of relative percent difference (RPD) between duplicate determinations.

RPD is calculated as follows:

$$\textbf{RPD} = \text{absolute value } [(C1-C2)/\{(C1+C2)/2)\}] \times 100\%$$

Where:

C1 = concentration of primary sample
C2 = concentration of duplicate sample

Field and analytical precision were determined from the review of the field duplicate results. The sample results were compared by calculating their RPDs. The field duplicate samples were collected in the same manner as the original samples but were collected in separate, individual containers, given separate sample identifiers, and treated as individual samples by the laboratory.

Laboratory duplicate RPD control limits are presented in the Work Plan (CDM Smith 2012c) or are laboratory specific. For laboratory duplicates, if one or both of the sample results were less than two times the RL, a control limit of the absolute difference equal to the RL value was used for comparison.

The field duplicate RPD criterion is 50 percent. Field duplicates for this project were validated using the following: If one result is non-detect and the other result is above the RL, the RPD result is shown as 200 percent and the field duplicate sample and parent sample results are qualified as estimated "J" or "UJ." If the field duplicate RPD was above the 50 percent criterion (and both sample results were above the RL), the field duplicate and parent sample results for that analyte were qualified as estimated "J."

Qualifiers were applied to applicable sample analyte results during the validation process based on laboratory and field duplicate precision results. Details are discussed in the laboratory validation reports in this appendix. Tables C-5, C-6 and C-7 show the field duplicate pairs and RPD results for Go-Backs, Trenches and Soil Vapor Location samples. RPD results outside of criteria are highlighted.

Laboratory precision criteria for Phase 3 Go-Backs, Trenches, and Soil Vapor Location samples required the qualification of the following analytes:

- 238 metal results

Field duplicate precision criteria for Phase 3 Go-Backs, Trenches and Soil Vapor Location samples required the qualification of the following analytes:

- 85 dioxin results
- 15 metal results
- 3 mercury results
- 14 TPH GRO/EFH results
- 3 pesticide results
- 2 PCB/PCT results
- 1 herbicide result
- 55 SVOC SIM results

No results were rejected based on field duplicate precision criteria. All field duplicate RPD results are presented in Appendix C. In summary, sample results that have been qualified as estimated "J/UJ" due to precision criteria are usable for project decisions with a degree of caution.

There is no discernable pattern or reason for the laboratory and field sample RPD exceedances identified. No field sampling issues were identified from the RPD results that were outside of criteria and the exceedances are reasonable for this type of sampling activity.

C.7.2 Accuracy

Accuracy is the degree of agreement between a measurement and the accepted reference or true value and is a measure of the bias in a system. Accuracy of the data was assessed by comparing LCS recovery, MS recovery, calibration recovery, Inductively Coupled Plasma (ICP) interferences, and by performing serial dilution checks during metals analyses. Accuracy is expressed as percent recovery (%R), which is calculated by:

$$\textbf{Percent Recovery} = \frac{\textbf{(Total Analyte Found – Analyte Originally Present)}}{\textbf{Analyte Added}} \times 100$$

Analytical accuracy for the entire data collection activity is difficult to assess because several sources of error exist. Errors can be introduced by any of the following:

- Sampling procedure
- Field contamination
- Sample preservation and handling
- Sample matrix
- Sample preparation
- Analytical techniques

Accuracy is maintained to the extent possible by adhering to the approved analytical method and field and analytical standard operating procedures.

Qualifiers were applied to applicable sample analyte results during the validation process based on laboratory accuracy results and are discussed in detail in the laboratory validation reports in Appendix C.

The following Go-Backs, Trenches and Soil Vapor Location individual analyte results were qualified as estimated "J/UJ" based on accuracy criteria:

- 6 dioxin results, 332 metal results, 4 glycol/terphenyl results, 2 glycol results, 24 TPH GRO/EFH results, 1 pesticide result, 7 herbicide results, 2 VOC results, 4 SVOC results, 34 SVOC SIM and 4 energetic results due to MS recoveries
- 129 metal analyte results due to serial dilutions
- 312 TPH GRO/EFH results, 8 herbicide results, 20 SVOC results, 56 SVOC SIM results and 4 energetic results for LCS recoveries

- 105 TPH GRO/EFH results, 2 PCB/PCT results and 1 VOC SIM (1,4-Dioxane) result for surrogate recoveries
- 5 dioxins results, 1 PCB/PCT result and 1 herbicide result for second column confirmation results
- 55 TPH GRO/EFH results, 16 pesticide results, 4 herbicide results, 9 VOC results and 17 SVOC SIM results for calibration criteria

The following individual analyte results were rejected "R" based on accuracy criteria:

- 1 triethylene glycol result, 7 herbicide results and 1 2,6-dichlorophenol result based on MS criteria
- 8 herbicide results based on LCSs

Sample preservation, handling, and holding times are additional measures of accuracy of the data. All sample preservation, holding times and handling criteria were met except for 16 glycol results. These results were qualified as estimated "J/UJ."

Sample results that have been qualified as estimated "J/UJ" due to accuracy criteria are usable for project decisions. Sample results that have been rejected are not usable for project decisions.

C.7.3 Blank Contamination

Field blanks (e.g., equipment and trip) and laboratory method blanks are analyzed to identify possible sources of contamination. Contamination of a sample can be introduced by field sample collection methods, sample handling, preparation, and/or analysis. The laboratory validation reports in this appendix and summarized below discuss the results qualified based on field and laboratory blank contamination.

The following individual analyte results were qualified as nondetect "U" based on laboratory blank contamination for the Go-Backs, Trenches and Soil Vapor Location samples:

- 735 dioxin results (44% of all dioxin results)
- 175 metal results (4.7% of all metal results)

For the dioxins, MDLs for this analysis are very low, reported in nanogram per kilogram (ng/kg) or parts per trillion, resulting in numerous results qualified as estimated "J." Many of these estimated values have been subsequently qualified as non-detect "U" because the compound was detected in related laboratory blanks. In the laboratory blanks, low level detections of dioxin analytes are somewhat inevitable because of the nature and universal extent of the compounds. The dioxin levels found in the blanks are well below site-related action levels. Therefore, the resulting qualification of associated sample results as not detected or "U" does not falsely diminish identification of site-related contaminants.

Tables C-2 through C-4 provide a summary of chemicals observed in the equipment, field and trip blank samples. Most of the equipment blanks, field blanks and trip blanks detected

compounds were below the RLs but above the MDLs. ASTM International Type II water is not typically certified "clean" to the low RLs established for the low level methods used for the co-located sampling program.

Eighty-one percent of the detected compounds in the equipment and field blanks were below the RLs but above the MDLs. Compounds detected above the RL are highlighted yellow in the associated tables. Perchlorate was detected above the RL in one of the equipment blanks. Samples associated with this equipment blank either had nondetect concentrations for perchlorate or it was previously determined that site processes did not constitute sampling for perchlorate at the other associated locations. 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin was also detected in one of the equipment blank samples at a concentration above the RL. Associated samples either had concentrations of this analyte above the specific analyte validation blank action level or it was previously determined that site processes did not constitute sampling for dioxins at the other associated locations. The concentration of the dioxin analyte detected in the equipment blank could possibly be contributing to the concentrations detected in the samples but not at a level that required qualification based on validation protocol. Other analytes were detected in equipment and/or field blank samples above the RL indicating inherent low level contamination in the source water used. All Phase 3 equipment blanks will continue to be monitored to determine if these low level detections are consistent, thus indicating a possible deficiency in decontamination procedures and/or source water impacts that need to be addressed and corrected.

For Go-Backs, Trenches and Soil Vapor Location samples, 129 metal results were qualified based on field/equipment blanks results. To date, chemical detections in equipment blank samples appear to be random occurrences.

Trip blank results are presented in Table C-4. All the trip blank results were nondetect.

C.7.4 Representativeness, Comparability, and Sensitivity

Representativeness, comparability, and sensitivity are achieved by using EPA-approved sampling procedures and analytical methodologies. By following the procedures described in the Work Plan (CDM Smith 2012c) for this sampling event and future sampling events, sample analysis should yield results representative of environmental conditions at the time of sampling. Similarly, reasonable comparability of analytical results for this and future sampling events can be achieved if approved EPA analytical methods and standardized reporting units are employed.

C.7.4.1 Representativeness

Representativeness is a qualitative term that expresses the degree to which the sample data accurately and precisely represent the environmental conditions corresponding to the location and depth interval of sample collection. Requirements and procedures for sample collection are designed to maximize sample representativeness.

Representativeness also can be monitored by reviewing field documentation and/or by performing field audits. For this report, a detailed review was performed on the CoC forms, field data collection forms, laboratory sample confirmation logs, and data validation packages. Laboratory QA/QC requirements were included in the Master FSP (CDM Smith

2012a) and laboratory statements of work (SOWs) to ensure that the laboratory analytical results were representative of true field conditions.

Field sampling accuracy was attained through strict adherence to the approved Master FSP (CDM Smith 2012a) and by using approved standard operating procedures for field data collection. Based on this, the data should represent as near as possible the actual field conditions at the time of sampling.

Representativeness has been achieved by the performed field work and laboratory analyses. The analytical data generated, that have not been rejected, are viewed to be a representative characterization of the project area.

C.7.4.2 Comparability

Comparability is a qualitative term that expresses the confidence with which a data set can be compared with another. Strict adherence to standard sample collection procedures, analytical detection limits, and analytical methods assures that data from like samples and sample conditions are comparable. This comparability is independent of laboratory personnel, data reviewers, or sampling personnel. Comparability criteria are met for the project if, based on data review, the sample collection and analytical procedures are determined to have been followed, or defined to show that variations did not affect the values reported.

To ensure comparability of data generated for the site, standard sample collection procedures and Department of Toxic Substances Control (DTSC)-approved analytical methods were utilized by CDM Smith. The sample analyses were performed by Eurofins Lancaster Laboratories. Utilizing such procedures and methods enables the current data to be comparable with previous and future data sets generated with similar methods.

C.7.4.3 Sensitivity

Sensitivity is related to the ability to compare analytical results with project-specific levels of interest, such as risk-based screening levels or action levels. Analytical detection limits for the various sample analytes should be below the level of interest to allow an effective comparison.

Detection Limits

Each analytical method used during the sampling events was selected because it had potential to achieve RLs established for this project. RLs were established for each analyte in consultation with the laboratory to achieve analytical results at or below regulatory comparison criteria.

The method detection limit (MDL) is defined as the concentration of an analyte that produces a signal with a 99 percent confidence that the concentration is above that of a blank but that that concentration cannot be accurately quantified. A blank is a sample that does not contain measurable concentrations of the analyte of concern. Tested by statistical performance, calibration samples, and LCSs, MDLs represent the best fundamental measurement of instrument sensitivity and the basis for establishing RLs.

The laboratory RL is typically about 3 to 5 times higher than the MDL and is a laboratory-specific number. The actual sample RL is variable based on the sample matrix, moisture content, and other sample-specific factors. When a sample has to be diluted before analysis, either because of matrix problems or to bring the instrument response within the linear dynamic range, the RL is raised by a factor corresponding to the dilution factor.

In reporting environmental sample results, laboratories follow protocols that help ensure that the result reported is at the lowest level and is defensible, taking into account the ability of the instrument to differentiate a signal generated by the analyte from the background instrument noise, imprecision added to the detection capabilities of the analyte due to the sample processing manipulations (MDLs) and sample matrix affects, and adjustments made to the detection limits based on difficulties encountered in analyzing the sample (dilution factors, etc.).

The result for an analyte is flagged with a "U" if that analyte was not detected, or qualified with a "J" flag if blank or other QC results fall outside the appropriate tolerance limits. If an analyte is present at a concentration between the MDL and the RL, the analytical result is flagged with a "J," indicating an estimated quantity. Qualifying the result as an estimated concentration reflects increased uncertainty in the reported value.

The following analyses and individual analyte sample results were qualified as estimated "J" due to the sample results being reported as detected below the RL for Go-Backs, Trenches and Soil Vapor Location samples:

- Method 1613B (Dioxins)
  - 566 individual analyte results
- Methods 6010C/6020A (Metals)
  - 573 individual analyte results
- Methods 7199 (Hexavalent Chromium)
  - 5 individual analyte results
- Methods 7471B (Mercury)
  - 34 individual analyte results
- Method 8015M (TPH GRO/EFH)
  - 123 individual analyte results
- Method 8081B (Pesticides)
  - 30 individual analyte results
- Method 8082A (PCBs)
  - 31 individual analyte results
- Method 8151A (Herbicides)
  - 3 individual analyte results

- Method 8260B (VOCs)
  - 3 individual analyte results

- Method 8270D (SVOCs)
  - 19 individual analyte results

- Method 8270D SIM (SVOCs)
  - 372 individual analyte results

For the data validated in the Go-Backs, Trenches and Soil Vapor Location TM, RLs for a majority of the sample results were low enough to compare to the RLs stated in the Master FSP (CDM Smith 2012a). RLs above those stated in the Master FSP (CDM Smith 2012a) will be evaluated on a case by case basis to see if resampling is required.

C.8 Review of Selected Validation Reports

CDM Smith performed a review of 10 percent of the validation reports identified in Table C-1. This review involved comparing the validation report results against the laboratory data packages as well as the validation guidance documents. All validation report results that were reviewed were verified against the laboratory data packages and determined that validation documents were followed as required.

C.9 Data Completeness

Completeness of the data collection program is defined as the percentage of samples planned for collection as listed in the Master FSP (CDM Smith 2012a) versus the actual number of samples collected during the field program (see equation A).

Completeness for acceptable data is defined as the percentage of acceptable data obtained judged to be valid versus the total quantity of data generated (see equation B). Acceptable data include both data that pass all the QC criteria (unqualified data) and data that may not pass all the QC criteria but had appropriate corrective actions taken (qualified but usable data).

A. $$\%\text{Completeness} = Cx\frac{100}{n}$$

Where:

C = actual number of samples collected
n = total number of samples planned

B. $$\%\text{Completeness} = Vx\frac{100}{n'}$$

Where:

V = number of measurements judged valid
n' = total number of measurements made

The overall completeness goal, as defined in the Master FSP (CDM Smith 2012a), for this sampling event was 90 percent for each analytical test for all project data.

A total of 241 soil samples including the field duplicates were collected and analyzed. Some locations required only a subsurface sample while other locations required both a surface and a subsurface sample. The number of subsurface samples to be collected at each location was not pre-determined because the total depth of each boring varies depending on the local geology. The completeness goal for the actual number of samples collected compared to the number of samples planned is considered acceptable as a sample was collected from each location (depending on shallow refusal).

The completeness goal achieved for acceptable data was 99.90 percent for Go-Backs, Trenches and Soil Vapor Location samples for the number of measurements judged to be valid versus the total number of measurements made for all samples analyzed.

The following Phase 3 Go-Backs, Trenches and Soil Vapor Location individual analyte results were rejected per analyses:

- Method 8015C
  - One out of 32 glycol (triethylene glycol) results (3.12 percent)
- Method 8151A
  - Fifteen out of 140 herbicide results (10.71 percent)
- Method 8270D
  - One out of 619 SVOC (2,6-Cihlorophenol) results (0.16 percent)

Table C-8 summarizes all results that were estimated or rejected for Phase 3 Go-Backs, Trenches and Soil Vapor Location samples.

The completeness goals for both the locations sampled and the number of measurements judged to be valid were met or are planned to be met.

Sampling deviations from procedures described in the Master FSP (CDM Smith 2012a) are discussed in Section 2.8 of the Phase 3 Go-Backs, Trenches and Soil Vapor Location samples TM. Deviations did not impact DQOs for this sampling event. The data reported are suitable for their intended use for characterization of Area IV of SSFL. The DQIs identified in the Master FSP (CDM Smith 2012a) met appropriate criteria. The completeness goals for both the locations sampled and the number of measurements judged to be valid were met or will be met. The achievement of the completeness goals for the data indicates a sufficient amount of usable data has been generated for project decisions.

C.10 Assessment of Data Usability and Reconciliation with WP/FSAP Goals

Over 99 percent of the data validated for Phase 3 Go-Backs, Trenches and Soil Vapor Location samples, are suitable for their intended use for site characterization. Sample results that were qualified as estimated are usable for project decisions. Rejected sample results are not suitable for project use. The rejected analyte results do not impact achievement of the overall

project objectives. The RLs reported generally met the expected limits proposed by the analytical laboratories in their subcontract agreements with CDM Smith.

Field duplicate precision also met criteria a majority of the time. RPDs were outside criteria predominantly when the sample results were close to the RL and/or below the project required action limits. Decisions based on results close to the RL should be made with a degree of caution. The achievement of the completeness goals for number of samples collected, and the number of sample results acceptable for use provides sufficient quality data to support project decisions.

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Table C-1
SDGs and Associated Samples
Go-Backs, Trenches and Soil Vapor Locations

Task Code	Sample Name	Lab SDG	Matrix Code	Sample Date
Go Back	SL-838-SA5B-SB-0.0-0.5	PH158	SO	1/13/2014
Go Back	SL-838-SA5B-SB-4.0-5.0	PH158	SO	1/13/2014
Go Back	SL-840-SA5B-SB-0.0-0.5	PH158	SO	1/13/2014
Go Back	SL-840-SA5B-SB-4.0-5.0	PH158	SO	1/13/2014
Go Back	SL-840-SA5B-SB-7.0-8.0	PH158	SO	1/13/2014
Go Back	TB-011314	PH158	WQ	1/13/2014
Go Back	EB-011414	PH159	WQ	1/14/2014
Go Back	SL-839-SA5B-SB-0.0-0.5	PH159	SO	1/14/2014
Go Back	SL-839-SA5B-SB-15.5-16.5	PH159	SO	1/14/2014
Go Back	SL-839-SA5B-SB-4.0-5.0	PH159	SO	1/14/2014
Go Back	SL-839-SA5B-SB-9.0-10.0	PH159	SO	1/14/2014
Go Back	SL-843-SA5B-SB-0.0-0.5	PH159	SO	1/14/2014
Go Back	SL-843-SA5B-SB-4.0-5.0	PH159	SO	1/14/2014
Go Back	SL-843-SA5B-SB-7.0-8.0	PH159	SO	1/14/2014
Go Back	TB-011414	PH159	WQ	1/14/2014
Go Back	FDG-SL-798-SA5B-SB-0.0-0.5	PH172	SO	5/7/2014
Go Back	EB-050814	PH173	WQ	5/8/2014
Go Back	FDG-SL-1049-SA5C-SB-0.0-0.5	PH173	SO	5/8/2014
Go Back	FDG-SL-511-SA5C-SB-0.0-0.5	PH173	SO	5/8/2014
Go Back	FDG-SL-511-SA5C-SB-2.0-3.0	PH173	SO	5/8/2014
Go Back	FDG-SL-749-SA5C-SB-0.0-0.5	PH173	SO	5/8/2014
Go Back	SVL-501-SA5B-SB-0.75-1.25	PH174	SO	5/12/2014
Go Back	TB-051214	PH174	WQ	5/12/2014
Go Back	FDG-SL-748-SA5C-SB-0.0-0.5	PH175	SO	5/12/2014
Go Back	FDG-SL-748-SA5C-SB-4.0-5.0	PH175	SO	5/12/2014
Go Back	FB-051314	PH176	WQ	5/13/2014
Go Back	FDG-SL-756-SA5C-SB-15.0-16.0	PH176	SO	5/13/2014
Go Back	FDG-SL-836-SA5B-SB-15.0-16.0	PH176	SO	5/13/2014
Go Back	FDG-SL-836-SA5B-SB-19.0-20.0	PH176	SO	5/13/2014
Go Back	TB1-051314	PH176	WQ	5/13/2014
Go Back	EB1-051414	PH177	WQ	5/14/2014
Go Back	EB2-051414	PH177	WQ	5/14/2014
Go Back	FDG-SL-757-SA5C-SB-0.0-0.5	PH177	SO	5/14/2014
Go Back	FDG-SL-757-SA5C-SB-4.0-5.0	PH177	SO	5/14/2014
Go Back	FDG-SL-757-SA5C-SB-8.0-9.0	PH177	SO	5/14/2014
Go Back	FDG-SL-841-SA5B-SB-0.0-0.5	PH177	SO	5/14/2014
Go Back	FDG-SL-841-SA5B-SB-4.0-5.0	PH177	SO	5/14/2014
Go Back	FDG-SL-841-SA5B-SB-9.0-10.0	PH177	SO	5/14/2014
Go Back	FDG-SL-842-SA5B-SB-0.0-0.5	PH177	SO	5/14/2014
Go Back	FDG-SL-842-SA5B-SB-4.0-5.0	PH177	SO	5/14/2014
Go Back	TB1-051414	PH177	WQ	5/14/2014

Table C-1
SDGs and Associated Samples
Go-Backs, Trenches and Soil Vapor Locations

Task Code	Sample Name	Lab SDG	Matrix Code	Sample Date
Go Back	EB2-051514	PH178	WQ	5/15/2014
Go Back	SVL-534-SA5B-SB-3.0-3.5	PH178	SO	5/15/2014
Go Back	SVL-538-SA5B-SB-1.5-2.0	PH178	SO	5/15/2014
Go Back	SVL-566-SA5B-SB-2.0-2.5	PH178	SO	5/15/2014
Go Back	TB-051514	PH178	WQ	5/15/2014
Go Back	SVL-532-SA5B-SB-4.0-5.0	PH180	SO	5/13/2014
Go Back	SVL-832-SA5B-SB-4.0-5.0	PH180	SO	5/13/2014
Go Back	TB2-051314	PH180	WQ	5/13/2014
Go Back	SVL-504-SA8-SB-2.0-2.5	PH181	SO	5/16/2014
Go Back	SVL-519-SA8-SB-7.5-8.0	PH181	SO	5/16/2014
Go Back	TB-051614	PH181	WQ	5/16/2014
Go Back	SVL-521-SA5B-SB-3.0-3.5	PH182	SO	5/14/2014
Go Back	SVL-543-SA5B-SB-2.0-2.5	PH182	SO	5/14/2014
Go Back	TB2-051414	PH182	WQ	5/14/2014
Go Back	SVL-517-SA8-SB-10.0-11.0	PH183	SO	5/19/2014
Go Back	SVL-517-SA8-SB-15.5-16.5	PH183	SO	5/19/2014
Go Back	SVL-517-SA8-SB-5.0-6.0	PH183	SO	5/19/2014
Go Back	SVL-524-SA8-SB-4.5-5.5	PH183	SO	5/19/2014
Go Back	SVL-528-SA8-SB-11.0-12.0	PH183	SO	5/19/2014
Go Back	SVL-528-SA8-SB-5.0-6.0	PH183	SO	5/19/2014
Go Back	TB1-051914	PH183	WQ	5/19/2014
Go Back	SL-534-SA8-TR-0.5	PH185	SO	5/19/2014
Go Back	SL-534-SA8-TR-5.0	PH185	SO	5/19/2014
Go Back	SL-548-SA8-TR-0.5	PH185	SO	5/19/2014
Go Back	SL-548-SA8-TR-10.0	PH185	SO	5/19/2014
Go Back	SL-548-SA8-TR-5.0	PH185	SO	5/19/2014
Go Back	SL-848-SA8-TR-5.0	PH185	SO	5/19/2014
Go Back	TB2-051914	PH185	WQ	5/19/2014
Go Back	SVL-525-SA5C-SB-10.0-11.0	PH186	SO	5/20/2014
Go Back	SVL-525-SA5C-SB-15.0-16.0	PH186	SO	5/20/2014
Go Back	SVL-525-SA5C-SB-5.0-6.0	PH186	SO	5/20/2014
Go Back	SVL-531-SA5C-SB-2.5-2.9	PH186	SO	5/20/2014
Go Back	TB2-052014	PH186	WQ	5/20/2014
Go Back	FDG2-SL-1174-SA5A-SB-4.0-5.0	PH188	SO	5/20/2014
Go Back	FDG2-SL-874-SA5A-SB-0.0-0.5	PH188	SO	5/20/2014
Go Back	FDG2-SL-874-SA5A-SB-12.0-13.0	PH188	SO	5/20/2014
Go Back	FDG2-SL-874-SA5A-SB-4.0-5.0	PH188	SO	5/20/2014
Go Back	TB1-052014	PH188	WQ	5/20/2014

Table C-1
SDGs and Associated Samples
Go-Backs, Trenches and Soil Vapor Locations

Task Code	Sample Name	Lab SDG	Matrix Code	Sample Date
Go Back	SL-569-SA6-TR-0.5	PH189	SO	5/20/2014
Go Back	SL-569-SA6-TR-2.5	PH189	SO	5/20/2014
Go Back	SL-570-SA6-TR-0.5	PH189	SO	5/20/2014
Go Back	SL-570-SA6-TR-2.0	PH189	SO	5/20/2014
Go Back	SL-570-SA6-TR-6.0	PH189	SO	5/20/2014
Go Back	SL-611-SA8-TR-0.5	PH189	SO	5/20/2014
Go Back	SL-611-SA8-TR-10.5	PH189	SO	5/20/2014
Go Back	SL-611-SA8-TR-5.0	PH189	SO	5/20/2014
Go Back	TB3-052014	PH189	WQ	5/20/2014
Go Back	EB-052114	PH190	WQ	5/21/2014
Go Back	SVL-512-SA5D-SB-5.0-6.0	PH190	SO	5/21/2014
Go Back	SVL-515-SA5D-SB-5.0-6.0	PH190	SO	5/21/2014
Go Back	TB2-052114	PH190	WQ	5/21/2014
Go Back	FB-052114	PH191	WQ	5/21/2014
Go Back	SL-686-SA6-TR-0.5	PH192	SO	5/21/2014
Go Back	SL-686-SA6-TR-11.0	PH192	SO	5/21/2014
Go Back	SL-686-SA6-TR-5.0	PH192	SO	5/21/2014
Go Back	TB3-052114	PH192	WQ	5/21/2014
Go Back	FDG2-SL-584-SA5D-SB-0.0-0.5	PH193	SO	5/21/2014
Go Back	FDG2-SL-584-SA5D-SB-4.0-5.0	PH193	SO	5/21/2014
Go Back	FDG2-SL-585-SA5D-SB-0.0-0.5	PH193	SO	5/21/2014
Go Back	FDG2-SL-585-SA5D-SB-4.0-5.0	PH193	SO	5/21/2014
Go Back	FDG2-SL-586-SA5D-SB-0.0-0.5	PH193	SO	5/21/2014
Go Back	FDG2-SL-586-SA5D-SB-2.0-3.0	PH193	SO	5/21/2014
Go Back	FDG2-SL-623-SA8-SB-0.0-0.5	PH193	SO	5/21/2014
Go Back	FDG2-SL-623-SA8-SB-14.0-15.0	PH193	SO	5/21/2014
Go Back	FDG2-SL-623-SA8-SB-19.0-20.0	PH193	SO	5/21/2014
Go Back	FDG2-SL-623-SA8-SB-4.0-5.0	PH193	SO	5/21/2014
Go Back	FDG2-SL-623-SA8-SB-9.0-10.0	PH193	SO	5/21/2014
Go Back	FDG2-SL-885-SA5D-SB-0.0-0.5	PH193	SO	5/21/2014
Go Back	TB1-052114	PH193	WQ	5/21/2014
Go Back	SVL-511-SA5D-SB-4.5-5.5	PH194	SO	5/22/2014
Go Back	SVL-811-SA5D-SB-4.5-5.5	PH194	SO	5/22/2014
Go Back	TB2-052214	PH194	WQ	5/22/2014
Go Back	EB3-052214	PH195	WQ	5/22/2014
Go Back	SL-587-SA5A-TR-0.5	PH195	SO	5/22/2014
Go Back	SL-587-SA5A-TR-5.5	PH195	SO	5/22/2014
Go Back	SL-730-SA5A-TR-0.5	PH195	SO	5/22/2014
Go Back	SL-730-SA5A-TR-6.0	PH195	SO	5/22/2014
Go Back	SL-887-SA5A-TR-5.5	PH195	SO	5/22/2014
Go Back	TB3-052214	PH195	WQ	5/22/2014

Table C-1
SDGs and Associated Samples
Go-Backs, Trenches and Soil Vapor Locations

Task Code	Sample Name	Lab SDG	Matrix Code	Sample Date
Go Back	EB1-052214	PH196	WQ	5/22/2014
Go Back	EB2-052214	PH196	WQ	5/22/2014
Go Back	FDG2-SL-578-NBZ-SB-0.0-0.5	PH196	SO	5/22/2014
Go Back	FDG2-SL-581-NBZ-SB-0.0-0.5	PH196	SO	5/22/2014
Go Back	FDG2-SL-581-NBZ-SB-13.0-14.0	PH196	SO	5/22/2014
Go Back	FDG2-SL-581-NBZ-SB-4.0-5.0	PH196	SO	5/22/2014
Go Back	FDG2-SL-581-NBZ-SB-9.0-10.0	PH196	SO	5/22/2014
Go Back	FDG2-SL-628-SA8-SB-0.0-0.5	PH196	SO	5/22/2014
Go Back	FDG2-SL-628-SA8-SB-14.0-15.0	PH196	SO	5/22/2014
Go Back	FDG2-SL-628-SA8-SB-4.0-5.0	PH196	SO	5/22/2014
Go Back	FDG2-SL-628-SA8-SB-9.0-10.0	PH196	SO	5/22/2014
Go Back	TB1-052214	PH196	WQ	5/22/2014
Go Back	FDG2-SL-561-NBZ-SB-0.0-0.5	PH197	SO	5/23/2014
Go Back	SVL-536-SA5D-SB-1.8-2.3	PH198	SO	5/23/2014
Go Back	TB2-052314	PH198	WQ	5/23/2014
Go Back	SL-636-SA5A-TR-0.5	PH199	SO	5/23/2014
Go Back	SL-636-SA5A-TR-3.5	PH199	SO	5/23/2014
Go Back	SL-636-SA5A-TR-7.5	PH199	SO	5/23/2014
Go Back	TB3-052314	PH199	WQ	5/23/2014
Go Back	SVL-532-SA5D-SB-4.0-4.5	PH200	SO	5/27/2014
Go Back	SVL-546-SA5D-SB-5.0-6.0	PH200	SO	5/27/2014
Go Back	SVL-550-SA5D-SB-5.0-6.0	PH200	SO	5/27/2014
Go Back	TB2-052714	PH200	WQ	5/27/2014
Go Back	SL-693-SA5B-TR-0.5	PH201	SO	5/27/2014
Go Back	SL-693-SA5B-TR-3.5	PH201	SO	5/27/2014
Go Back	SL-693-SA5B-TR-5.0	PH201	SO	5/27/2014
Go Back	SL-707-SA5B-TR-0.5	PH201	SO	5/27/2014
Go Back	SL-707-SA5B-TR-3.0	PH201	SO	5/27/2014
Go Back	TB3-052714	PH201	WQ	5/27/2014
Go Back	SVL-507-SA5C-SB-5.0-6.0	PH203	SO	5/28/2014
Go Back	SVL-545-SA5C-SB-3.0-3.5	PH203	SO	5/28/2014
Go Back	SVL-551-SA5C-SB-2.0-2.8	PH203	SO	5/28/2014
Go Back	TB2-052814	PH203	WQ	5/28/2014
Go Back	SL-529-SA5B-TR-0.5	PH204	SO	5/28/2014
Go Back	SL-529-SA5B-TR-11.0	PH204	SO	5/28/2014
Go Back	SL-529-SA5B-TR-2.0	PH204	SO	5/28/2014
Go Back	SL-529-SA5B-TR-3.0	PH204	SO	5/28/2014
Go Back	SL-693-SA5B-TR-3.0	PH204	SO	5/28/2014
Go Back	SL-699-SA5B-TR-0.5	PH204	SO	5/28/2014
Go Back	SL-699-SA5B-TR-3.0	PH204	SO	5/28/2014
Go Back	SL-699-SA5B-TR-8.0	PH204	SO	5/28/2014

Table C-1
SDGs and Associated Samples
Go-Backs, Trenches and Soil Vapor Locations

Task Code	Sample Name	Lab SDG	Matrix Code	Sample Date
Go Back	TB3-052814	PH204	WQ	5/28/2014

Table C-1
SDGs and Associated Samples
Go-Backs, Trenches and Soil Vapor Locations

Task Code	Sample Name	Lab SDG	Matrix Code	Sample Date
Go Back	EB2-052914	PH206	WQ	5/29/2014
Go Back	SVL-557-SA5C-SB-3.0-3.5	PH206	SO	5/29/2014
Go Back	SVL-559-SA5C-SB-2.5-3.0	PH206	SO	5/29/2014
Go Back	TB2-052914	PH206	WQ	5/29/2014
Go Back	EB1-052914	PH207	WQ	5/29/2014
Go Back	SL-503-SA5C-TR-0.5	PH207	SO	5/29/2014
Go Back	SL-503-SA5C-TR-5.0	PH207	SO	5/29/2014
Go Back	SL-503-SA5C-TR-7.5	PH207	SO	5/29/2014
Go Back	SL-605-SA5C-TR-0.5	PH207	SO	5/29/2014
Go Back	SL-605-SA5C-TR-10.0	PH207	SO	5/29/2014
Go Back	SL-605-SA5C-TR-5.0	PH207	SO	5/29/2014
Go Back	TB3-052914	PH207	WQ	5/29/2014
Go Back	SL-651-SA5C-TR-0.5	PH209	SO	5/30/2014
Go Back	SL-651-SA5C-TR-10.0	PH209	SO	5/30/2014
Go Back	SL-651-SA5C-TR-15.0	PH209	SO	5/30/2014
Go Back	SL-651-SA5C-TR-5.0	PH209	SO	5/30/2014
Go Back	SL-951-SA5C-TR-5.0	PH209	SO	5/30/2014
Go Back	TB3-053014	PH209	WQ	5/30/2014
Go Back	SVL-518-SA5C-SB-11.0-11.5	PH211	SO	6/2/2014
Go Back	SVL-518-SA5C-SB-5.5-6.0	PH211	SO	6/2/2014
Go Back	SVL-563-SA5C-SB-1.0-1.5	PH211	SO	6/2/2014
Go Back	SVL-576-SA5B-SB-4.0-4.3	PH211	SO	6/2/2014
Go Back	TB3-060214	PH211	WQ	6/2/2014
Go Back	SL-653-SA5C-TR-0.5	PH212	SO	6/2/2014
Go Back	SL-653-SA5C-TR-10.0	PH212	SO	6/2/2014
Go Back	SL-653-SA5C-TR-15.0	PH212	SO	6/2/2014
Go Back	SL-653-SA5C-TR-5.0	PH212	SO	6/2/2014
Go Back	TB4-060214	PH212	WQ	6/2/2014
Go Back	SVL-553-SA5D-SB-14.0-15.0	PH214	SO	6/3/2014
Go Back	SVL-553-SA5D-SB-19.0-20.0	PH214	SO	6/3/2014
Go Back	SVL-553-SA5D-SB-4.5-5.5	PH214	SO	6/3/2014
Go Back	SVL-553-SA5D-SB-9.0-10.0	PH214	SO	6/3/2014
Go Back	SVL-556-SA5D-SB-10.0-11.0	PH214	SO	6/3/2014
Go Back	SVL-556-SA5D-SB-4.5-5.5	PH214	SO	6/3/2014
Go Back	SVL-602-SA5B-SB-4.5-5.0	PH214	SO	6/3/2014
Go Back	TB1-060314	PH214	WQ	6/3/2014

Table C-1
SDGs and Associated Samples
Go-Backs, Trenches and Soil Vapor Locations

Task Code	Sample Name	Lab SDG	Matrix Code	Sample Date
Go Back	EB1-060414	PH216	WQ	6/4/2014
Go Back	EB2-060414	PH216	WQ	6/4/2014
Go Back	EB4-060414	PH216	WQ	6/4/2014
Go Back	EB5-060414	PH216	WQ	6/4/2014
Go Back	SVL-566-SA5A-SB-3.0-3.5	PH216	SO	6/4/2014
Go Back	SVL-571-SA5A-SB-2.5-3.0	PH216	SO	6/4/2014
Go Back	SVL-574-SA5A-SB-1.5-2.0	PH216	SO	6/4/2014
Go Back	SVL-576-SA5A-SB-2.5-3.0	PH216	SO	6/4/2014
Go Back	SVL-577-SA5B-SB-5.3-5.8	PH216	SO	6/4/2014
Go Back	SVL-586-SA5B-SB-3.75-4.25	PH216	SO	6/4/2014
Go Back	SVL-986-SA5B-SB-3.75-4.25	PH216	SO	6/4/2014
Go Back	TB3-060414	PH216	WQ	6/4/2014
Go Back	EB3-060414	PH217	WQ	6/4/2014
Go Back	SL-646-SA5C-TR-0.5	PH217	SO	6/4/2014
Go Back	SL-646-SA5C-TR-5.0	PH217	SO	6/4/2014
Go Back	SL-655-SA5C-TR-0.5	PH217	SO	6/4/2014
Go Back	SL-655-SA5C-TR-5.0	PH217	SO	6/4/2014
Go Back	TB2-060414	PH217	WQ	6/4/2014
Go Back	SVL-529-SA5A-SB-4.0-4.5	PH219	SO	6/5/2014
Go Back	SVL-552-SA5A-SB-1.5-2.0	PH219	SO	6/5/2014
Go Back	SVL-554-SA5A-SB-1.5-2.0	PH219	SO	6/5/2014
Go Back	TB2-060514	PH219	WQ	6/5/2014
Go Back	EB-060514	PH220	WQ	6/5/2014
Go Back	FDG2-SL-624-SA8-SB-0.0-0.5	PH220	SO	6/5/2014
Go Back	FDG2-SL-625-SA8-SB-0.0-0.5	PH220	SO	6/5/2014
Go Back	FDG2-SL-631-SA8-SB-0.0-0.5	PH220	SO	6/5/2014
Go Back	FDG2-SL-631-SA8-SB-4.5-5.0	PH220	SO	6/5/2014
Go Back	FDG2-SL-631-SA8-SB-7.0-8.0	PH220	SO	6/5/2014
Go Back	TB1-060514	PH220	WQ	6/5/2014
Go Back	FDG2-SL-626-SA8-SB-0.0-0.5	PH221	SO	6/6/2014
Go Back	FDG2-SL-626-SA8-SB-4.0-5.0	PH221	SO	6/6/2014
Go Back	FDG2-SL-691-SA6-SB-0.0-0.5	PH221	SO	6/6/2014
Go Back	FDG2-SL-692-SA6-SB-0.0-0.5	PH221	SO	6/6/2014
Go Back	FDG2-SL-693-SA6-SB-0.0-0.5	PH221	SO	6/6/2014
Go Back	TB1-060614	PH221	WQ	6/6/2014
Go Back	SVL-627-SA5A-SB-3.0-3.5	PH222	SO	6/6/2014
Go Back	TB2-060614	PH222	WQ	6/6/2014
Go Back	SVL-527-SA6-SB-2.0-3.0	PH223	SO	6/9/2014
Go Back	SVL-574-SA6-SB-3.8-4.3	PH223	SO	6/9/2014
Go Back	SVL-611-SA5A-SB-1.35-1.85	PH223	SO	6/9/2014
Go Back	SVL-630-SA5A-SB-1.5-2.0	PH223	SO	6/9/2014

Table C-1
SDGs and Associated Samples
Go-Backs, Trenches and Soil Vapor Locations

Task Code	Sample Name	Lab SDG	Matrix Code	Sample Date
Go Back	TB-060914	PH223	WQ	6/9/2014

Table C-1
SDGs and Associated Samples
Go-Backs, Trenches and Soil Vapor Locations

Task Code	Sample Name	Lab SDG	Matrix Code	Sample Date
Go Back	FDG2-SL-558-NBZ-SB-0.0-0.5	PH224	SO	6/9/2014
Go Back	FDG2-SL-559-NBZ-SB-0.0-0.5	PH224	SO	6/9/2014
Go Back	FDG2-SL-632-SA8-SB-0.0-0.5	PH224	SO	6/9/2014
Go Back	FDG2-SL-858-NBZ-SB-0.0-0.5	PH224	SO	6/9/2014
Go Back	SVL-549-SA5C-SB-6.3-6.8	PH226	SO	6/10/2014
Go Back	SVL-551-SA6-SB-4.0-5.0	PH226	SO	6/10/2014
Go Back	SVL-561-SA5C-SB-10.5-11.0	PH226	SO	6/10/2014
Go Back	SVL-562-SA5B-SB-8.0-9.0	PH226	SO	6/10/2014
Go Back	TB2-061014	PH226	WQ	6/10/2014
Go Back	FDG2-SL-564-NBZ-SB-0.0-0.5	PH227	SO	6/10/2014
Go Back	FDG2-SL-565-NBZ-SB-0.0-0.5	PH227	SO	6/10/2014
Go Back	FDG2-SL-566-NBZ-SB-0.0-0.5	PH227	SO	6/10/2014
Go Back	FDG2-SL-576-NBZ-SB-0.0-0.5	PH227	SO	6/10/2014
Go Back	FDG2-SL-576-NBZ-SB-2.0-3.0	PH227	SO	6/10/2014
Go Back	FDG2-SL-612-SA5D-SB-0.0-0.5	PH227	SO	6/10/2014
Go Back	FDG2-SL-613-SA5D-SB-0.0-0.5	PH227	SO	6/10/2014
Go Back	FDG2-SL-614-SA5D-SB-0.0-0.5	PH227	SO	6/10/2014
Go Back	FDG2-SL-630-SA8-SB-0.0-0.5	PH227	SO	6/10/2014
Go Back	FDG2-SL-630-SA8-SB-4.0-5.0	PH227	SO	6/10/2014
Go Back	FDG2-SL-630-SA8-SB-7.0-8.0	PH227	SO	6/10/2014
Go Back	FDG2-SL-930-SA8-SB-4.0-5.0	PH227	SO	6/10/2014
Go Back	TB1-061014	PH227	WQ	6/10/2014
Go Back	EB1-061114	PH228	WQ	6/11/2014
Go Back	EB2-061114	PH228	WQ	6/11/2014
Go Back	EB3-061114	PH228	WQ	6/11/2014
Go Back	EB4-061114	PH228	WQ	6/11/2014
Go Back	SVL-536-SA5B-SB-1.5-2.0	PH228	SO	6/11/2014
Go Back	SVL-563-SA5B-SB-4.5-5.0	PH228	SO	6/11/2014
Go Back	SVL-569-SA5B-SB-2.5-3.0	PH228	SO	6/11/2014
Go Back	SVL-577-SA6-SB-1.0-2.0	PH228	SO	6/11/2014
Go Back	TB2-061114	PH228	WQ	6/11/2014
Go Back	FDG2-SL-560-NBZ-SB-0.0-0.5	PH229	SO	6/11/2014
Go Back	FDG2-SL-571-NBZ-SB-0.0-0.5	PH229	SO	6/11/2014
Go Back	FDG2-SL-577-NBZ-SB-0.0-0.5	PH229	SO	6/11/2014
Go Back	FDG2-SL-629-SA8-SB-0.0-0.5	PH229	SO	6/11/2014
Go Back	FDG2-SL-694-SA6-SB-0.0-0.5	PH229	SO	6/11/2014
Go Back	FDG2-SL-695-SA6-SB-0.0-0.5	PH229	SO	6/11/2014
Go Back	FDG2-SL-878-SA5A-SB-0.0-0.5	PH229	SO	6/11/2014
Go Back	FDG2-SL-878-SA5A-SB-4.0-5.0	PH229	SO	6/11/2014
Go Back	TB1-061114	PH229	WQ	6/11/2014

Table C-1
SDGs and Associated Samples
Go-Backs, Trenches and Soil Vapor Locations

Task Code	Sample Name	Lab SDG	Matrix Code	Sample Date
Go Back	SVL-532-SA8-SB-3.5-4.0	PH230	SO	6/12/2014
Go Back	SVL-546-SA8-SB-4.4-4.9	PH230	SO	6/12/2014
Go Back	SVL-846-SA8-SB-4.4-4.9	PH230	SO	6/12/2014
Go Back	TB-061214	PH230	WQ	6/12/2014
Go Back	EB1-061214	PH231	WQ	6/12/2014
Go Back	EB2-061214	PH231	WQ	6/12/2014
Go Back	FDG2-SL-562-NBZ-SB-0.0-0.5	PH231	SO	6/12/2014
Go Back	FDG2-SL-563-NBZ-SB-0.0-0.5	PH231	SO	6/12/2014
Go Back	FDG2-SL-569-NBZ-SB-0.0-0.5	PH231	SO	6/12/2014
Go Back	FDG2-SL-570-NBZ-SB-0.0-0.5	PH231	SO	6/12/2014
Go Back	FDG2-SL-583-NBZ-SB-0.0-0.5	PH231	SO	6/12/2014
Go Back	FDG2-SL-582-NBZ-SB-0.0-0.5	PH233	SO	6/13/2014
Go Back	FDG2-SL-582-NBZ-SB-3.0-3.5	PH233	SO	6/13/2014
Go Back	FDG2-SL-584-NBZ-SB-0.0-0.5	PH233	SO	6/13/2014
Go Back	FDG2-SL-585-NBZ-SB-0.0-0.5	PH233	SO	6/13/2014
Go Back	FDG2-SL-586-NBZ-SB-0.0-0.5	PH233	SO	6/13/2014
Go Back	TB-061314	PH233	WQ	6/13/2014
Go Back	FDG2-SL-1175-SA5A-SB-2.0-3.0	PH234	SO	6/16/2014
Go Back	FDG2-SL-875-SA5A-SB-0.0-0.5	PH234	SO	6/16/2014
Go Back	FDG2-SL-875-SA5A-SB-2.0-3.0	PH234	SO	6/16/2014
Go Back	FDG2-SL-876-SA5A-SB-0.0-0.5	PH234	SO	6/16/2014
Go Back	FDG2-SL-876-SA5A-SB-4.0-5.0	PH234	SO	6/16/2014
Go Back	FDG2-SL-877-SA5A-SB-0.0-0.5	PH234	SO	6/16/2014
Go Back	FDG2-SL-877-SA5A-SB-3.0-4.0	PH234	SO	6/16/2014
Go Back	TB-061614	PH234	WQ	6/16/2014
Go Back	FDG2-SL-567-NBZ-SB-0.0-0.5	PH235	SO	6/17/2014
Go Back	FDG2-SL-568-NBZ-SB-0.0-0.5	PH235	SO	6/17/2014
Go Back	FDG2-SL-572-NBZ-SB-0.0-0.5	PH235	SO	6/17/2014
Go Back	EB1-061814	PH237	WQ	6/18/2014
Go Back	FDG2-SL-573-NBZ-SB-0.0-0.5	PH237	SO	6/18/2014
Go Back	FDG2-SL-574-NBZ-SB-0.0-0.5	PH237	SO	6/18/2014
Go Back	FDG2-SL-575-NBZ-SB-0.0-0.5	PH237	SO	6/18/2014

Table C-2
Go-Backs, Trenches and Soil Vapor Locations - Equipment Blanks

	Sample Name:	EB-011414		EB-050814		EB-052114		EB-060514		EB1-051414	
	Location:	EQUIPMENT BLANK FDG		EQUIPMENT BLANK FDG		EQUIPMENT BLANK SV		EQUIPMENT BLANK FDG		EQUIPMENT BLANK FDG	
	Sample Date:	01/14/2014		05/08/2014		05/21/2014		06/05/2014		05/14/2014	
	Sample Type:	EB		EB		EB		EB		EB	
	Lab:	LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	µg/L					5	U				
1,1,1-Trichloroethane	8260B	µg/L					5	U				
1,1,2,2-Tetrachloroethane	8260B	µg/L					5	U				
1,1,2-Trichloro-1,2,2-trifluoroethane	8260B	µg/L					5	U				
1,1,2-Trichloroethane	8260B	µg/L					5	U				
1,1'-Biphenyl	8270D	µg/L										
1,1-Dichloroethane	8260B	µg/L					5	U				
1,1-Dichloroethene	8260B	µg/L					5	U				
1,1-Dichloropropene	8260B	µg/L					5	U				
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	1613B	pg/L	10.1	U	9.7	U			9.72	U	10.3	U
1,2,3,4,6,7,8-HPCDF	1613B	pg/L	10.1	U	9.7	U			9.72	U	10.3	U
1,2,3,4,7,8,9-HPCDF	1613B	pg/L	10.1	U	9.7	U			9.72	U	10.3	U
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	0.537	J	0.146	J			9.72	U	10.3	U
1,2,3,4,7,8-HXCDF	1613B	pg/L	10.1	U	9.7	U			9.72	U	10.3	U
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	10.1	U	9.7	U			9.72	U	10.3	U
1,2,3,6,7,8-HXCDF	1613B	pg/L	10.1	U	9.7	U			9.72	U	10.3	U
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	10.1	U	9.7	U			9.72	U	10.3	U
1,2,3,7,8,9-HXCDF	1613B	pg/L	10.1	U	9.7	U			9.72	U	10.3	U
1,2,3,7,8-Pentachlorodibenzofuran	1613B	pg/L	10.1	U	9.7	U			9.72	U	10.3	U
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1613B	pg/L	10.1	U	9.7	U			9.72	U	10.3	U
1,2,3-Trichlorobenzene	8260B	µg/L					5	U				
1,2,3-Trichloropropane	8260B	µg/L					5	U				
1,2,4-Trichlorobenzene	8260B	µg/L					5	U				
1,2,4-Trichlorobenzene	8270D	µg/L										
1,2,4-Trimethylbenzene	8260B	µg/L					5	U				
1,2-Dibromo-3-chloropropane	8260B	µg/L					5	U				
1,2-Dibromoethane	8260B	µg/L					5	U				
1,2-Dichlorobenzene	8260B	µg/L					5	U				
1,2-Dichlorobenzene	8270D	µg/L										
1,2-Dichloroethane	8260B	µg/L					5	U				
1,2-Dichloropropane	8260B	µg/L					5	U				
1,2-Diphenylhydrazine	8270D	µg/L										
1,3,5-Trimethylbenzene	8260B	µg/L					5	U				
1,3,5-Trinitrobenzene	8330A	µg/L										
1,3-Dichlorobenzene	8260B	µg/L					5	U				
1,3-Dichlorobenzene	8270D	µg/L										
1,3-Dichloropropane	8260B	µg/L					5	U				
1,4-Dichlorobenzene	8260B	µg/L					5	U				
1,4-Dichlorobenzene	8270D	µg/L										
1,4-Dioxane	8260B SIM	µg/L										
1-Chlorohexane	8260B	µg/L					5	U				
1-Methylnaphthalene	8270D	µg/L										
1-Methylnaphthalene	8270D SIM	µg/L	0.053	U	0.051	U			0.024	J	0.057	U
2,2-Dichloropropane	8260B	µg/L					5	U				
2,2-Dichlor-Propionic Acid	8151A	µg/L										
2,3,4,6,7,8-HXCDF	1613B	pg/L	0.404	J	0.114	J			9.72	U	10.3	U
2,3,4,7,8-PECDF	1613B	pg/L	10.1	U	9.7	U			9.72	U	10.3	U
2,3,7,8-TCDD	1613B	pg/L	2.01	U	1.94	U			1.94	U	2.06	U
2,3,7,8-Tetrachlorodibenzofuran	1613B	pg/L	2.01	U	1.94	U			1.94	U	0.156	J
2,4,5-T	8151A	µg/L										
2,4,5-Trichlorophenol	8270D	µg/L										
2,4,6-Trichlorophenol	8270D	µg/L										
2,4,6-Trinitrotoluene	8330A	µg/L										
2,4-D	8151A	µg/L										
2,4-DB	8151A	µg/L										
2,4-Diamino-6-nitrotoluene	8330A	µg/L										
2,4-Dichlorophenol	8270D	µg/L										
2,4-Dimethylphenol	8270D	µg/L										
2,4-Dinitrophenol	8270D	µg/L										
2,4-Dinitrotoluene	8330A	µg/L										
2,6-Diamino-4-nitrotoluene	8330A	µg/L										
2,6-Dichlorophenol	8270D	µg/L										
2,6-Dinitrotoluene	8330A	µg/L										
2-Amino-4,6-Dinitrotoluene	8330A	µg/L										
2-Butanone (MEK)	8260B	µg/L					10	U				
2-Chloro-1,1,1-trifluoroethane	8260B	µg/L					5	U				
2-Chloroethyl Vinyl Ether	8260B	µg/L					10	U				
2-Chloronaphthalene	8270D	µg/L										
2-Chlorophenol	8270D	µg/L										
2-Chlorotoluene	8260B	µg/L					5	U				
2-Hexanone	8260B	µg/L					10	U				
2-Methylnaphthalene	8270D	µg/L										
2-Methylnaphthalene	8270D SIM	µg/L	0.053	U	0.051	U			0.034	J	0.057	U
2-Methylphenol	8270D	µg/L										
2-Nitroaniline	8270D	µg/L										
2-Nitrophenol	8270D	µg/L										
2-Nitrotoluene	8330A	µg/L										
2-Phenylbutane	8260B	µg/L					5	U				
3,3'-Dichlorobenzidine	8270D	µg/L										
3,5-Dimethylphenol	8270D	µg/L										
3-Nitroaniline	8270D	µg/L										
3-Nitrotoluene	8330A	µg/L										
4,4'-DDD	8081B	µg/L										
4,4'-DDE	8081B	µg/L										
4,4'-DDT	8081B	µg/L										
4,6-Dinitro-2-methylphenol	8270D	µg/L										
4-Amino-2,6-Dinitrotoluene	8330A	µg/L										
4-Bromophenyl-phenylether	8270D	µg/L										
4-Chloro-3-methylphenol	8270D	µg/L										
4-Chloroaniline	8270D	µg/L										
4-Chlorophenyl-phenylether	8270D	µg/L										
4-Chlorotoluene	8260B	µg/L					5	U				
4-Methyl-2-pentanone (MIBK)	8260B	µg/L					10	U				
4-Methylphenol	8270D	µg/L										
4-Nitroaniline	8270D	µg/L										
4-Nitrophenol	8270D	µg/L										
4-Nitrotoluene	8330A	µg/L										
Acenaphthene	8270D	µg/L										
Acenaphthene	8270D SIM	µg/L	0.053	U	0.016	J			0.053	U	0.057	U
Acenaphthylene	8270D	µg/L										
Acenaphthylene	8270D SIM	µg/L	0.053	U	0.021	J			0.053	U	0.057	U
Acetone	8260B	µg/L					20	U				
Acrolein	8260B	µg/L					100	U				
Acrylonitrile	8260B	µg/L					20	U				
Aldrin	8081B	µg/L										
Alpha-Bhc	8081B	µg/L										
Aluminum	6010C	mg/L	0.4	U	0.4	U			0.4	U	0.4	U
Aniline	8270D	µg/L										
Anthracene	8270D	µg/L										
Anthracene	8270D SIM	µg/L	0.053	U	0.051	U			0.053	U	0.057	U
Antimony	6010C	mg/L	0.04	U	0.04	U			0.04	U	0.04	U

Table C-2
Go-Backs, Trenches and Soil Vapor Locations - Equipment Blanks

	Sample Name:	EB-011414		EB-050814		EB-052114		EB-060514		EB1-051414	
	Location:	EQUIPMENT BLANK FDG		EQUIPMENT BLANK FDG		EQUIPMENT BLANK SV		EQUIPMENT BLANK FDG		EQUIPMENT BLANK FDG	
	Sample Date:	01/14/2014		05/08/2014		05/21/2014		06/05/2014		05/14/2014	
	Sample Type:	EB		EB		EB		EB		EB	
	Lab:	LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Aroclor 1016	8082A	µg/L	0.4	U	0.41	U			0.42	U	0.41	U
Aroclor 1221	8082A	µg/L	0.4	U	0.41	U			0.42	U	0.41	U
Aroclor 1232	8082A	µg/L	0.4	U	0.41	U			0.42	U	0.41	U
Aroclor 1242	8082A	µg/L	0.4	U	0.41	UJ			0.42	U	0.41	U
Aroclor 1248	8082A	µg/L	0.4	U	0.41	UJ			0.42	U	0.41	U
Aroclor 1254	8082A	µg/L	0.4	U	0.41	UJ			0.42	U	0.41	U
Aroclor 1260	8082A	µg/L	0.4	U	0.41	UJ			0.42	U	0.41	U
Aroclor 1262	8082A	µg/L	0.4	U	0.41	U			0.42	U	0.41	U
Aroclor 1268	8082A	µg/L	0.4	U	0.41	U			0.42	U	0.41	U
Aroclor 5432	8082A	µg/L	0.4	U	0.41	U			0.42	U	0.41	U
Aroclor 5442	8082A	µg/L	0.4	U	0.41	U			0.42	U	0.41	U
Aroclor 5460	8082A	µg/L	0.4	U	0.41	U			0.42	U	0.41	U
Arsenic	6010C	mg/L	0.04	U	0.04	U			0.04	U	0.04	U
Barium	6010C	mg/L	0.00036	J	0.01	U			0.01	U	0.00034	J
Benzene	8260B	µg/L					5	U				
Benzidine	8270D	µg/L										
Benzo(a)anthracene	8270D	µg/L										
Benzo(a)anthracene	8270D SIM	µg/L	0.053	U	0.051	U			0.053	U	0.057	U
Benzo(a)pyrene	8270D	µg/L										
Benzo(a)pyrene	8270D SIM	µg/L	0.053	U	0.051	U			0.053	U	0.057	U
Benzo(b)fluoranthene	8270D	µg/L										
Benzo(b)fluoranthene	8270D SIM	µg/L	0.053	U	0.051	U			0.053	U	0.057	U
Benzo(e)pyrene	8270D SIM	µg/L	0.053	U	0.051	U			0.053	U	0.057	U
Benzo(g,h,i)perylene	8270D	µg/L										
Benzo(g,h,i)perylene	8270D SIM	µg/L	0.053	U	0.051	U			0.053	U	0.057	U
Benzo(k)fluoranthene	8270D	µg/L										
Benzo(k)fluoranthene	8270D SIM	µg/L	0.053	U	0.051	U			0.053	U	0.057	U
Benzoic Acid	8270D	µg/L										
Benzyl Alcohol	8270D	µg/L										
Beryllium	6010C	mg/L	0.01	U	0.01	U			0.01	U	0.01	U
Beta-Bhc	8081B	µg/L										
bis(2-chloroethoxy)methane	8270D	µg/L										
bis(2-chloroethyl) ether	8270D	µg/L										
bis(2-chloroisopropyl) ether	8270D	µg/L										
Bis(2-ethylhexyl)phthalate	8270D	µg/L										
Bis(2-ethylhexyl)phthalate	8270D SIM	µg/L	1.1	U	1	UJ			1	J	1.1	UJ
Boron	6010C	mg/L	0.1	U	0.0084	J			0.1	U	0.0106	J
Bromobenzene	8260B	µg/L					5	U				
Bromochloromethane	8260B	µg/L					5	U				
Bromodichloromethane	8260B	µg/L					5	U				
Bromoform	8260B	µg/L					5	U				
Bromomethane	8260B	µg/L					5	U				
Butylbenzylphthalate	8270D	µg/L										
Butylbenzylphthalate	8270D SIM	µg/L	1.1	U	1	U			1.1	U	1.1	U
Cadmium	6010C	mg/L	0.01	U	0.01	U			0.01	U	0.01	U
Calcium	6010C	mg/L	0.4	U	0.4	U			0.4	U	0.4	U
Carbazole	8270D	µg/L										
Carbon Disulfide	8260B	µg/L					5	U				
Carbon Tetrachloride	8260B	µg/L					5	U				
Chlordane	8081B	µg/L										
Chlorobenzene	8260B	µg/L					5	U				
Chloroethane	8260B	µg/L					5	U				
Chloroform	8260B	µg/L					5	U				
Chloromethane	8260B	µg/L					5	U				
Chlorotrifluoroethylene	8260B	µg/L					5	UJ				
Chromium	6010C	mg/L	0.03	U	0.03	U			0.03	U	0.03	U
Chromium (Hexavalent Compounds)	7199	µg/L										
Chrysene	8270D	µg/L										
Chrysene	8270D SIM	µg/L	0.053	U	0.051	U			0.053	U	0.057	U
cis-1,2-Dichloroethene	8260B	µg/L					5	U				
cis-1,3-Dichloropropene	8260B	µg/L					5	U				
Cobalt	6010C	mg/L	0.01	U	0.01	U			0.01	U	0.01	U
Copper	6010C	mg/L	0.02	U	0.02	U			0.02	U	0.02	U
Cymene	8260B	µg/L					5	U				
Delta-Bhc	8081B	µg/L										
Di isopropyl Ether	8260B	µg/L					5	U				
Dibenzo(a,h)anthracene	8270D	µg/L										
Dibenzo(a,h)anthracene	8270D SIM	µg/L	0.053	U	0.051	U			0.053	U	0.057	UJ
Dibenzofuran	8270D	µg/L										
Dibromochloromethane	8260B	µg/L					5	U				
Dibromomethane	8260B	µg/L					5	U				
Dicamba	8151A	µg/L										
Dichlorodifluoromethane	8260B	µg/L					5	U				
Dichlorprop	8151A	µg/L										
Dieldrin	8081B	µg/L										
Diethylene Glycol	8015C	mg/L										
Diethylphthalate	8270D	µg/L										
Diethylphthalate	8270D SIM	µg/L	0.44	J	0.48	J			1.1	U	1.1	U
Dimethylphthalate	8270D	µg/L										
Dimethylphthalate	8270D SIM	µg/L	1.1	U	1	U			1.1	U	1.1	U
Di-n-butylphthalate	8270D	µg/L										
Di-n-butylphthalate	8270D SIM	µg/L	0.17	J	1	U			0.098	J	1.1	U
Dinitrobutyl Phenol	8151A	µg/L										
Di-n-octylphthalate	8270D	µg/L										
Di-n-octylphthalate	8270D SIM	µg/L	1.1	U	1	U			1.1	U	1.1	UJ
Diphenylamine	8270D	µg/L										
EFH (C12-C14)	8015M	mg/L	0.098	U	0.098	U			0.1	UJ	0.098	U
EFH (C12-C14) w/ Silica Gel	8015M	mg/L			0.098	U			0.1	UJ	0.098	UJ
EFH (C15-C20)	8015M	mg/L	0.098	U	0.098	U			0.1	U	0.098	U
EFH (C15-C20) w/ Silica Gel	8015M	mg/L			0.098	U			0.1	U	0.098	U
EFH (C21-C30)	8015M	mg/L	0.098	U	0.098	U			0.1	U	0.098	U
EFH (C21-C30) w/ Silica Gel	8015M	mg/L			0.098	U			0.1	U	0.098	UJ
EFH (C30-C40)	8015M	mg/L	0.49	U	0.49	U			0.5	U	0.49	U
EFH (C30-C40) w/ Silica Gel	8015M	mg/L			0.49	U			0.5	U	0.49	U
EFH (C8-C11)	8015M	mg/L	0.098	U	0.098	U			0.1	UJ	0.098	U
EFH (C8-C11) w/ Silica Gel	8015M	mg/L			0.098	U			0.1	UJ	0.098	UJ
Endosulfan I	8081B	µg/L										
Endosulfan II	8081B	µg/L										
Endosulfan Sulfate	8081B	µg/L										
Endrin	8081B	µg/L										
Endrin Aldehyde	8081B	µg/L										
Endrin Ketone	8081B	µg/L										
Ethylbenzene	8260B	µg/L					5	U				
Ethylene Glycol	8015C	mg/L										
Fluoranthene	8270D	µg/L										
Fluoranthene	8270D SIM	µg/L	0.053	U	0.051	U			0.053	U	0.057	U
Fluorene	8270D	µg/L										
Fluorene	8270D SIM	µg/L	0.053	U	0.051	U			0.053	U	0.057	U
Formaldehyde	8315A	µg/L										
Gamma-Bhc (Lindane)	8081B	µg/L										
Gasoline Range Organics (C5-C12)	8015M	µg/L	50	U	50	U			50	U		

Table C-2
Go-Backs, Trenches and Soil Vapor Locations - Equipment Blanks

	Sample Name:	EB-011414		EB-050814		EB-052114		EB-060514		EB1-051414	
	Location:	EQUIPMENT BLANK FDG		EQUIPMENT BLANK FDG		EQUIPMENT BLANK SV		EQUIPMENT BLANK FDG		EQUIPMENT BLANK FDG	
	Sample Date:	01/14/2014		05/08/2014		05/21/2014		06/05/2014		05/14/2014	
	Sample Type:	EB		EB		EB		EB		EB	
	Lab:	LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Heptachlor	8081B	µg/L										
Heptachlor Epoxide	8081B	µg/L										
Hexachloro-1,3-butadiene	8260B	µg/L					5	U				
Hexachlorobenzene	8270D	µg/L										
Hexachlorobutadiene	8270D	µg/L										
Hexachlorocyclopentadiene	8270D	µg/L										
Hexachloroethane	8270D	µg/L										
HMX	8330A	µg/L										
Indeno(1,2,3-cd)pyrene	8270D	µg/L										
Indeno(1,2,3-cd)pyrene	8270D SIM	µg/L	0.053	U	0.051	U			0.053	U	0.057	U
Iron	6010C	mg/L	0.4	U	0.4	U			0.4	U	0.4	U
Isophorone	8270D	µg/L										
Isopropylbenzene	8260B	µg/L					5	U				
Lead	6010C	mg/L	0.03	U	0.03	U			0.03	U	0.03	U
Lithium	6010C	mg/L	0.04	U	0.04	U			0.04	U	0.04	U
m,p-Xylene	8260B	µg/L					5	U				
Magnesium	6010C	mg/L	0.2	U	0.2	U			0.2	U	0.2	U
Manganese	6010C	mg/L	0.01	U	0.01	U			0.01	U	0.01	U
MCPA	8151A	µg/L										
MCPP	8151A	µg/L										
M-Dinitrobenzene	8330A	µg/L										
Mercury	7470A	mg/L	0.0002	U	0.0002	U			0.0002	U	0.0002	U
Methoxychlor	8081B	µg/L										
Methyl Iodide	8260B	µg/L					5	U				
Methyl Tert-Butyl Ether	8260B	µg/L					5	U				
Methylene Chloride	8260B	µg/L					5	U				
Mirex	8081B	µg/L										
Molybdenum	6010C	mg/L	0.02	U	0.02	U			0.02	U	0.0029	J
Morpholine	8270D SIM	µg/L										
m-Terphenyl	8015B	mg/L										
Naphthalene	8270D	µg/L										
Naphthalene	8270D SIM	µg/L	0.053	U	0.051	U			0.072		0.057	U
n-Butylbenzene	8260B	µg/L					5	U				
Nickel	6010C	mg/L	0.02	U	0.02	U			0.02	U	0.02	U
Nitrobenzene	8270D	µg/L										
Nitrobenzene	8330A	µg/L										
Nitroglycerin	8330A	µg/kg										
N-Nitrosodimethylamine	8270D	µg/L										
N-Nitrosodimethylamine	8270D SIM	µg/L	0.053	U	0.051	U			0.053	U	0.057	U
N-Nitroso-di-n-propylamine	8270D	µg/L										
N-Nitrosodiphenylamine	8270D	µg/L										
n-Propylbenzene	8260B	µg/L					5	U				
OCDD	1613B	pg/L	20.1	U	19.4	U			19.4	U	20.6	U
OCDF	1613B	pg/L	20.1	U	19.4	U			19.4	U	20.6	U
o-Terphenyl	8015B	mg/L										
o-Xylene	8260B	µg/L					5	U				
Pentachlorophenol	8270D	µg/L										
Perchlorate	6850	µg/L	1	U	1	U					6.4	
PETN	8330A	µg/kg										
pH	9040C	pH	6.4		5.9				6.3		5.8	
Phenanthrene	8270D	µg/L										
Phenanthrene	8270D SIM	µg/L	0.053	U	0.051	U			0.053	U	0.057	U
Phenol	8270D	µg/L										
Phosphorus	6010C	mg/L	0.2	U	0.2	U			0.2	U	0.2	U
Potassium	6010C	mg/L	1	U	1	U			1	U	1	U
Propylene Glycol	8015C	mg/L										
p-Terphenyl	8015B	mg/L										
Pyrene	8270D	µg/L										
Pyrene	8270D SIM	µg/L	0.053	U	0.051	U			0.053	U	0.057	U
Pyridine	8270D	µg/L										
RDX	8330A	µg/L										
Selenium	6020A	mg/L	0.004	U	0.004	U			0.004	U	0.004	U
Silver	6020A	mg/L	0.001	U	0.001	U			0.001	U	0.001	U
Silvex (2,4,5-TP)	8151A	µg/L										
Sodium	6010C	mg/L	2	U	2	U			2	U	2	U
Strontium	6020A	mg/L	0.002	U	0.002	U			0.002	U	0.002	U
Styrene	8260B	µg/L					5	U				
Technical Toxaphene	8081B	µg/L										
tert-Butyl ethyl ether	8260B	µg/L					5	U				
tert-Butylbenzene	8260B	µg/L					5	U				
Tertiary amyl methyl ether	8260B	µg/L					5	U				
Tertiary butyl alcohol	8260B	µg/L					50	U				
Tetrachloroethene	8260B	µg/L					5	U				
Tetryl	8330A	µg/L										
Thallium	6020A	mg/L	0.001	U	0.001	U			0.001	U	0.001	U
Tin	6010C	mg/L	0.04	U	0.04	U			0.04	U	0.04	U
Titanium	6010C	mg/L	0.02	U	0.02	U			0.02	U	0.02	U
Toluene	8260B	µg/L					5	U				
trans-1,2-Dichloroethene	8260B	µg/L					5	U				
trans-1,3-Dichloropropene	8260B	µg/L					5	U				
Trichloroethene	8260B	µg/L					5	U				
Trichlorofluoromethane	8260B	µg/L					5	U				
Triethylene Glycol	8015C	mg/L										
Vanadium	6010C	mg/L	0.01	U	0.01	U			0.01	U	0.01	U
Vinyl Acetate	8260B	µg/L					10	U				
Vinyl Chloride	8260B	µg/L					5	U				
Zinc	6010C	mg/L	0.04	U	0.04	U			0.04	U	0.04	U
Zirconium	6010C	mg/L	0.1	U	0.1	U			0.1	U	0.1	U

Notes:
ug/L - microgram per liter
mg/L - milligram per liter
ng/L - nanogram per liter
pg/L - picogram per liter
U - Compound not detected above the reporting limit

Table C-2
Go-Backs, Trenches and Soil Vapor Locations - Equipment Blanks

			Sample Name:		EB1-052214		EB1-052914		EB1-060414		EB1-061114		EB1-061214	
			Location:		EQUIPMENT BLANK FDG		EQUIPMENT BLANK TR		EQUIPMENT BLANK SV		EQUIPMENT BLANK SV		EQUIPMENT BLANK FDG	
			Sample Date:		05/22/2014		05/29/2014		06/04/2014		06/11/2014		06/12/2014	
			Sample Type:		EB		EB		EB		EB		EB	
			Lab:		LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	µg/L			1	U	5	U	1	U		
1,1,1-Trichloroethane	8260B	µg/L			1	U	5	U	1	U		
1,1,2,2-Tetrachloroethane	8260B	µg/L			1	U	5	U	1	U		
1,1,2-Trichloro-1,2,2-trifluoroethane	8260B	µg/L			10	U	5	U	10	U		
1,1,2-Trichloroethane	8260B	µg/L			1	U	5	U	1	U		
1,1'-Biphenyl	8270D	µg/L			1	U						
1,1-Dichloroethane	8260B	µg/L			1	U	5	U	1	U		
1,1-Dichloroethene	8260B	µg/L			1	U	5	U	1	U		
1,1-Dichloropropene	8260B	µg/L			5	U	5	U	5	U		
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	1613B	pg/L			9.6	U					10.2	U
1,2,3,4,6,7,8-HPCDF	1613B	pg/L			9.6	U					10.2	U
1,2,3,4,7,8,9-HPCDF	1613B	pg/L			9.6	U					10.2	U
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L			0.293	J					10.2	U
1,2,3,4,7,8-HXCDF	1613B	pg/L			9.6	U					10.2	U
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L			9.6	U					10.2	U
1,2,3,6,7,8-HXCDF	1613B	pg/L			9.6	U					10.2	U
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	1613B	pg/L			9.6	U					10.2	U
1,2,3,7,8,9-HXCDF	1613B	pg/L			9.6	U					10.2	U
1,2,3,7,8-Pentachlorodibenzofuran	1613B	pg/L			9.6	U					10.2	U
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1613B	pg/L			9.6	U					10.2	U
1,2,3-Trichlorobenzene	8260B	µg/L			5	U	5	U	5	U		
1,2,3-Trichloropropane	8260B	µg/L			5	U	5	U	5	U		
1,2,4-Trichlorobenzene	8260B	µg/L			5	U	5	U	5	U		
1,2,4-Trichlorobenzene	8270D	µg/L			1	U						
1,2,4-Trimethylbenzene	8260B	µg/L			5	U	5	U	5	U		
1,2-Dibromo-3-chloropropane	8260B	µg/L			5	U	5	U	5	U		
1,2-Dibromoethane	8260B	µg/L			1	U	5	U	1	U		
1,2-Dichlorobenzene	8260B	µg/L			5	U	5	U	5	U		
1,2-Dichlorobenzene	8270D	µg/L			1	U						
1,2-Dichloroethane	8260B	µg/L			1	U	5	U	1	U		
1,2-Dichloropropane	8260B	µg/L			1	U	5	U	1	U		
1,2-Diphenylhydrazine	8270D	µg/L			1	U						
1,3,5-Trimethylbenzene	8260B	µg/L			5	U	5	U	5	U		
1,3,5-Trinitrobenzene	8330A	µg/L			0.6	U						
1,3-Dichlorobenzene	8260B	µg/L			5	U	5	U	5	U		
1,3-Dichlorobenzene	8270D	µg/L			1	U						
1,3-Dichloropropane	8260B	µg/L			1	U	5	U	1	U		
1,4-Dichlorobenzene	8260B	µg/L			5	U	5	U	5	U		
1,4-Dichlorobenzene	8270D	µg/L			1	U						
1,4-Dioxane	8260B SIM	µg/L										
1-Chlorohexane	8260B	µg/L			5	U	5	U	5	U		
1-Methylnaphthalene	8270D	µg/L			0.5	U						
1-Methylnaphthalene	8270D SIM	µg/L	0.02	J	0.023	J					0.02	J
2,2-Dichloropropane	8260B	µg/L			1	U	5	U	1	U		
2,2-Dichlor-Propionic Acid	8151A	µg/L			1.2	U					1.2	U
2,3,4,6,7,8-HXCDF	1613B	pg/L			9.6	U					10.2	U
2,3,4,7,8-PECDF	1613B	pg/L			0.216	J					0.0938	J
2,3,7,8-TCDD	1613B	pg/L			1.92	U					2.04	U
2,3,7,8-Tetrachlorodibenzofuran	1613B	pg/L			1.92	U					0.0871	J
2,4,5-T	8151A	µg/L			0.048	U					0.048	U
2,4,5-Trichlorophenol	8270D	µg/L			1	U						
2,4,6-Trichlorophenol	8270D	µg/L			1	U						
2,4,6-Trinitrotoluene	8330A	µg/L			0.6	U						
2,4-D	8151A	µg/L			0.48	U					0.48	U
2,4-DB	8151A	µg/L			0.96	U					0.59	J
2,4-Diamino-6-nitrotoluene	8330A	µg/L			0.6	U						
2,4-Dichlorophenol	8270D	µg/L			1	U						
2,4-Dimethylphenol	8270D	µg/L			1	U						
2,4-Dinitrophenol	8270D	µg/L			30	U						
2,4-Dinitrotoluene	8330A	µg/L			0.6	U						
2,6-Diamino-4-nitrotoluene	8330A	µg/L			0.6	U						
2,6-Dichlorophenol	8270D	µg/L			1	U						
2,6-Dinitrotoluene	8330A	µg/L			0.6	U						
2-Amino-4,6-Dinitrotoluene	8330A	µg/L			0.6	U						
2-Butanone (MEK)	8260B	µg/L			10	U	10	U	10	U		
2-Chloro-1,1,1-trifluoroethane	8260B	µg/L			5	U	5	U	5	U		
2-Chloroethyl Vinyl Ether	8260B	µg/L			10	U	10	U	10	U		
2-Chloronaphthalene	8270D	µg/L			1	U						
2-Chlorophenol	8270D	µg/L			1	U						
2-Chlorotoluene	8260B	µg/L			5	U	5	U	5	U		
2-Hexanone	8260B	µg/L			10	U	10	U	10	U		
2-Methylnaphthalene	8270D	µg/L			0.5	U						
2-Methylnaphthalene	8270D SIM	µg/L	0.03	J	0.033	J					0.027	J
2-Methylphenol	8270D	µg/L			1	U						
2-Nitroaniline	8270D	µg/L			1	U						
2-Nitrophenol	8270D	µg/L			1	U						
2-Nitrotoluene	8330A	µg/L			0.6	U						
2-Phenylbutane	8260B	µg/L			5	U	5	U	5	U		
3,3'-Dichlorobenzidine	8270D	µg/L			5	U						
3,5-Dimethylphenol	8270D	µg/L			10	U						
3-Nitroaniline	8270D	µg/L			1	U						
3-Nitrotoluene	8330A	µg/L			1.2	U						
4,4'-DDD	8081B	µg/L			0.017	U					0.017	U
4,4'-DDE	8081B	µg/L			0.017	U					0.017	U
4,4'-DDT	8081B	µg/L			0.017	U					0.017	U
4,6-Dinitro-2-methylphenol	8270D	µg/L			15	U						
4-Amino-2,6-Dinitrotoluene	8330A	µg/L			0.6	U						
4-Bromophenyl-phenylether	8270D	µg/L			1	U						
4-Chloro-3-methylphenol	8270D	µg/L			1	U						
4-Chloroaniline	8270D	µg/L			1	U						
4-Chlorophenyl-phenylether	8270D	µg/L			1	U						
4-Chlorotoluene	8260B	µg/L			5	U	5	U	5	U		
4-Methyl-2-pentanone (MIBK)	8260B	µg/L			10	U	10	U	10	U		
4-Methylphenol	8270D	µg/L			1	U						
4-Nitroaniline	8270D	µg/L			1	U						
4-Nitrophenol	8270D	µg/L			30	U						
4-Nitrotoluene	8330A	µg/L			1.2	U						
Acenaphthene	8270D	µg/L			0.5	U						
Acenaphthene	8270D SIM	µg/L	0.051	UJ	0.051	U					0.056	U
Acenaphthylene	8270D	µg/L			0.5	U						
Acenaphthylene	8270D SIM	µg/L	0.051	UJ	0.051	U					0.056	U
Acetone	8260B	µg/L			20	U	20	U	20	U		
Acrolein	8260B	µg/L			100	U	100	U	100	U		
Acrylonitrile	8260B	µg/L			20	U	20	U	20	U		
Aldrin	8081B	µg/L			0.0083	U					0.0085	U
Alpha-Bhc	8081B	µg/L			0.0083	U					0.0085	U
Aluminum	6010C	mg/L	0.4	U	0.4	U					0.4	U
Aniline	8270D	µg/L			1	U						
Anthracene	8270D	µg/L			0.5	U						
Anthracene	8270D SIM	µg/L	0.051	UJ	0.051	U					0.056	U
Antimony	6010C	mg/L	0.04	U	0.04	U					0.04	U

Table C-2
Go-Backs, Trenches and Soil Vapor Locations - Equipment Blanks

	Sample Name:	EB1-052214		EB1-052914		EB1-060414		EB1-061114		EB1-061214	
	Location:	EQUIPMENT BLANK FDG		EQUIPMENT BLANK TR		EQUIPMENT BLANK SV		EQUIPMENT BLANK SV		EQUIPMENT BLANK FDG	
	Sample Date:	05/22/2014		05/29/2014		06/04/2014		06/11/2014		06/12/2014	
	Sample Type:	EB		EB		EB		EB		EB	
	Lab:	LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Aroclor 1016	8082A	µg/L	0.42	U	0.42	U					0.43	UJ
Aroclor 1221	8082A	µg/L	0.42	U	0.42	U					0.43	UJ
Aroclor 1232	8082A	µg/L	0.42	U	0.42	U					0.43	UJ
Aroclor 1242	8082A	µg/L	0.42	U	0.42	U					0.43	UJ
Aroclor 1248	8082A	µg/L	0.42	U	0.42	U					0.43	UJ
Aroclor 1254	8082A	µg/L	0.42	U	0.42	U					0.43	UJ
Aroclor 1260	8082A	µg/L	0.42	U	0.42	U					0.43	UJ
Aroclor 1262	8082A	µg/L	0.42	U	0.42	U					0.43	UJ
Aroclor 1268	8082A	µg/L	0.42	U	0.42	U					0.43	UJ
Aroclor 5432	8082A	µg/L	0.42	U	0.42	U					0.43	U
Aroclor 5442	8082A	µg/L	0.42	U	0.42	U					0.43	U
Aroclor 5460	8082A	µg/L	0.42	U	0.42	U					0.43	U
Arsenic	6010C	mg/L	0.04	U	0.04	U					0.04	U
Barium	6010C	mg/L	0.01	U	0.01	U					0.01	U
Benzene	8260B	µg/L			1	U	5	U	1	U		
Benzidine	8270D	µg/L			61	U						
Benzo(a)anthracene	8270D	µg/L			0.5	U						
Benzo(a)anthracene	8270D SIM	µg/L	0.051	UJ	0.051	U					0.056	U
Benzo(a)pyrene	8270D	µg/L			0.5	U						
Benzo(a)pyrene	8270D SIM	µg/L	0.051	UJ	0.051	U					0.056	U
Benzo(b)fluoranthene	8270D	µg/L			0.5	U						
Benzo(b)fluoranthene	8270D SIM	µg/L	0.051	UJ	0.051	U					0.056	U
Benzo(e)pyrene	8270D SIM	µg/L	0.051	UJ	0.051	U					0.056	U
Benzo(g,h,i)perylene	8270D	µg/L			0.5	U						
Benzo(g,h,i)perylene	8270D SIM	µg/L	0.051	UJ	0.051	U					0.056	U
Benzo(k)fluoranthene	8270D	µg/L			0.5	U						
Benzo(k)fluoranthene	8270D SIM	µg/L	0.051	UJ	0.051	U					0.056	U
Benzoic Acid	8270D	µg/L			15	UJ						
Benzyl Alcohol	8270D	µg/L			15	U						
Beryllium	6010C	mg/L	0.01	U	0.01	U					0.01	U
Beta-Bhc	8081B	µg/L			0.0083	U					0.017	
bis(2-chloroethoxy)methane	8270D	µg/L			1	U						
bis(2-chloroethyl) ether	8270D	µg/L			1	U						
bis(2-chloroisopropyl) ether	8270D	µg/L			1	U						
Bis(2-ethylhexyl)phthalate	8270D	µg/L			5	U						
Bis(2-ethylhexyl)phthalate	8270D SIM	µg/L	1	UJ	1	UJ					1.1	UJ
Boron	6010C	mg/L	0.1	U	0.1	U					0.1	U
Bromobenzene	8260B	µg/L			5	U	5	U	5	U		
Bromochloromethane	8260B	µg/L			5	U	5	U	5	U		
Bromodichloromethane	8260B	µg/L			1	U	5	U	1	U		
Bromoform	8260B	µg/L			4	U	5	U	4	U		
Bromomethane	8260B	µg/L			1	U	5	U	1	U		
Butylbenzylphthalate	8270D	µg/L			5	U						
Butylbenzylphthalate	8270D SIM	µg/L	1	UJ	1	U					1.1	U
Cadmium	6010C	mg/L	0.01	U	0.01	U					0.01	U
Calcium	6010C	mg/L	0.4	U	0.4	U					0.4	U
Carbazole	8270D	µg/L			1	U						
Carbon Disulfide	8260B	µg/L			5	U	5	U	5	U		
Carbon Tetrachloride	8260B	µg/L			1	U	5	U	1	U		
Chlordane	8081B	µg/L			0.42	U					0.43	U
Chlorobenzene	8260B	µg/L			1	U	5	U	1	U		
Chloroethane	8260B	µg/L			1	U	5	U	1	U		
Chloroform	8260B	µg/L	0.6	J	1	U	5	U	1	U		
Chloromethane	8260B	µg/L			1	U	5	U	1	U		
Chlorotrifluoroethylene	8260B	µg/L			5	U	5	U	5	U		
Chromium	6010C	mg/L	0.03	U	0.03	U					0.03	U
Chromium (Hexavalent Compounds)	7199	µg/L			10	U						
Chrysene	8270D	µg/L			0.5	U						
Chrysene	8270D SIM	µg/L	0.051	UJ	0.051	U					0.056	U
cis-1,2-Dichloroethene	8260B	µg/L			1	U	5	U	1	U		
cis-1,3-Dichloropropene	8260B	µg/L			1	U	5	U	1	U		
Cobalt	6010C	mg/L	0.01	U	0.01	U					0.01	U
Copper	6010C	mg/L	0.02	U	0.02	U					0.02	U
Cymene	8260B	µg/L			5	U	5	U	5	U		
Delta-Bhc	8081B	µg/L			0.0083	U					0.0085	U
Di isopropyl Ether	8260B	µg/L			1	U	5	U	1	U		
Dibenzo(a,h)anthracene	8270D	µg/L			0.5	U						
Dibenzo(a,h)anthracene	8270D SIM	µg/L	0.051	UJ	0.051	U					0.056	U
Dibenzofuran	8270D	µg/L			1	U						
Dibromochloromethane	8260B	µg/L			1	U	5	U	1	U		
Dibromomethane	8260B	µg/L			1	U	5	U	1	U		
Dicamba	8151A	µg/L			0.29	UJ					0.29	U
Dichlorodifluoromethane	8260B	µg/L			1	U	5	U	1	U		
Dichlorprop	8151A	µg/L			0.48	U					0.48	U
Dieldrin	8081B	µg/L			0.017	U					0.017	U
Diethylene Glycol	8015C	mg/L			10	U						
Diethylphthalate	8270D	µg/L			5	U						
Diethylphthalate	8270D SIM	µg/L	0.053	J	0.057	J					1.1	U
Dimethylphthalate	8270D	µg/L			5	U						
Dimethylphthalate	8270D SIM	µg/L	1	UJ	1	U					1.1	U
Di-n-butylphthalate	8270D	µg/L			5	U						
Di-n-butylphthalate	8270D SIM	µg/L	0.09	J	1	U					1.1	U
Dinitrobutyl Phenol	8151A	µg/L			0.48	U					0.48	U
Di-n-octylphthalate	8270D	µg/L			5	U						
Di-n-octylphthalate	8270D SIM	µg/L	1	UJ	1	U					1.1	UJ
Diphenylamine	8270D	µg/L			5	U						
EFH (C12-C14)	8015M	mg/L	0.1	UJ	0.095	U					0.1	U
EFH (C12-C14) w/ Silica Gel	8015M	mg/L	0.1	UJ	0.095	U					0.1	UJ
EFH (C15-C20)	8015M	mg/L	0.1	UJ	0.095	U					0.1	U
EFH (C15-C20) w/ Silica Gel	8015M	mg/L	0.1	UJ	0.095	U					0.1	U
EFH (C21-C30)	8015M	mg/L	0.1	UJ	0.095	U					0.1	U
EFH (C21-C30) w/ Silica Gel	8015M	mg/L	0.1	UJ	0.095	U					0.1	UJ
EFH (C30-C40)	8015M	mg/L	0.5	UJ	0.48	U					0.51	U
EFH (C30-C40) w/ Silica Gel	8015M	mg/L	0.5	UJ	0.48	U					0.51	U
EFH (C8-C11)	8015M	mg/L	0.1	UJ	0.095	U					0.1	U
EFH (C8-C11) w/ Silica Gel	8015M	mg/L	0.1	UJ	0.095	UJ					0.1	UJ
Endosulfan I	8081B	µg/L			0.0083	U					0.0085	U
Endosulfan II	8081B	µg/L			0.017	U					0.017	U
Endosulfan Sulfate	8081B	µg/L			0.017	U					0.017	U
Endrin	8081B	µg/L			0.017	U					0.017	U
Endrin Aldehyde	8081B	µg/L			0.083	U					0.085	U
Endrin Ketone	8081B	µg/L			0.017	U					0.017	U
Ethylbenzene	8260B	µg/L			1	U	5	U	1	U		
Ethylene Glycol	8015C	mg/L			10	U						
Fluoranthene	8270D	µg/L			0.5	U						
Fluoranthene	8270D SIM	µg/L	0.051	UJ	0.051	U					0.056	U
Fluorene	8270D	µg/L			0.5	U						
Fluorene	8270D SIM	µg/L	0.051	UJ	0.051	U					0.056	U
Formaldehyde	8315A	µg/L										
Gamma-Bhc (Lindane)	8081B	µg/L			0.0083	U					0.0085	U
Gasoline Range Organics (C5-C12)	8015M	µg/L			50	U					50	U

Table C-2
Go-Backs, Trenches and Soil Vapor Locations - Equipment Blanks

	Sample Name:	EB1-052214		EB1-052914		EB1-060414		EB1-061114		EB1-061214	
	Location:	EQUIPMENT BLANK FDG		EQUIPMENT BLANK TR		EQUIPMENT BLANK SV		EQUIPMENT BLANK SV		EQUIPMENT BLANK FDG	
	Sample Date:	05/22/2014		05/29/2014		06/04/2014		06/11/2014		06/12/2014	
	Sample Type:	EB		EB		EB		EB		EB	
	Lab:	LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Heptachlor	8081B	µg/L			0.0083	U					0.0085	U
Heptachlor Epoxide	8081B	µg/L			0.0083	U					0.0085	U
Hexachloro-1,3-butadiene	8260B	µg/L			5	U	5	U	5	U		
Hexachlorobenzene	8270D	µg/L			0.5	U						
Hexachlorobutadiene	8270D	µg/L			1	U						
Hexachlorocyclopentadiene	8270D	µg/L			15	U						
Hexachloroethane	8270D	µg/L			5	U						
HMX	8330A	µg/L			2	U						
Indeno(1,2,3-cd)pyrene	8270D	µg/L			0.5	U						
Indeno(1,2,3-cd)pyrene	8270D SIM	µg/L	0.051	UJ	0.051	U					0.056	U
Iron	6010C	mg/L	0.4	U	0.4	U					0.4	U
Isophorone	8270D	µg/L			1	U						
Isopropylbenzene	8260B	µg/L			5	U	5	U	5	U		
Lead	6010C	mg/L	0.03	U	0.03	U					0.03	U
Lithium	6010C	mg/L	0.04	U	0.04	U					0.04	U
m,p-Xylene	8260B	µg/L			1	U	5	U	1	U		
Magnesium	6010C	mg/L	0.2	U	0.2	U					0.2	U
Manganese	6010C	mg/L	0.01	U	0.01	U					0.01	U
MCPA	8151A	µg/L			190	U					190	U
MCPP	8151A	µg/L			190	U					190	U
M-Dinitrobenzene	8330A	µg/L			0.6	U						
Mercury	7470A	mg/L	0.0002	U	0.0002	U					0.0002	U
Methoxychlor	8081B	µg/L			0.083	U					0.085	U
Methyl Iodide	8260B	µg/L			1	U	5	U	1	U		
Methyl Tert-Butyl Ether	8260B	µg/L			1	U	5	U	1	U		
Methylene Chloride	8260B	µg/L	7	J	5		5	U	4			
Mirex	8081B	µg/L			0.042	U					0.043	U
Molybdenum	6010C	mg/L	0.02	U	0.0054	J					0.02	U
Morpholine	8270D SIM	µg/L			20	U						
m-Terphenyl	8015B	mg/L			0.0048	U						
Naphthalene	8270D	µg/L			0.5	U						
Naphthalene	8270D SIM	µg/L	0.11	J	0.087						0.058	
n-Butylbenzene	8260B	µg/L			5	U	5	U	5	U		
Nickel	6010C	mg/L	0.02	U	0.02	U					0.02	U
Nitrobenzene	8270D	µg/L			1	U						
Nitrobenzene	8330A	µg/L			0.6	U						
Nitroglycerin	8330A	µg/kg			100000000	U						
N-Nitrosodimethylamine	8270D	µg/L			5	U						
N-Nitrosodimethylamine	8270D SIM	µg/L	0.051	UJ	0.051	U					0.056	UJ
N-Nitroso-di-n-propylamine	8270D	µg/L			1	U						
N-Nitrosodiphenylamine	8270D	µg/L			1	U						
n-Propylbenzene	8260B	µg/L			5	U	5	U	5	U		
OCDD	1613B	pg/L			19.2	U					20.4	U
OCDF	1613B	pg/L			19.2	U					0.74	J
o-Terphenyl	8015B	mg/L			0.0048	U						
o-Xylene	8260B	µg/L			1	U	5	U	1	U		
Pentachlorophenol	8270D	µg/L			5	U						
Perchlorate	6850	µg/L			1	U						
PETN	8330A	µg/kg			100000000	U						
pH	9040C	pH	5.4		5.7						5.6	
Phenanthrene	8270D	µg/L			0.5	U						
Phenanthrene	8270D SIM	µg/L	0.051	UJ	0.051	U					0.056	U
Phenol	8270D	µg/L			1	U						
Phosphorus	6010C	mg/L	0.2	U	0.2	U					0.2	U
Potassium	6010C	mg/L	1	U	1	U					1	U
Propylene Glycol	8015C	mg/L			10	U						
p-Terphenyl	8015B	mg/L			0.0048	U						
Pyrene	8270D	µg/L			0.5	U						
Pyrene	8270D SIM	µg/L	0.051	UJ	0.051	U					0.056	U
Pyridine	8270D	µg/L			5	U						
RDX	8330A	µg/L			0.6	U						
Selenium	6020A	mg/L	0.004	U	0.004	U					0.004	U
Silver	6020A	mg/L	0.001	U	0.001	U					0.001	U
Silvex (2,4,5-TP)	8151A	µg/L			0.048	U					0.048	U
Sodium	6010C	mg/L	2	U	2	U					2	U
Strontium	6020A	mg/L	0.002	U	0.00042	J					0.002	U
Styrene	8260B	µg/L			5	U	5	U	5	U		
Technical Toxaphene	8081B	µg/L			0.83	U					0.85	U
tert-Butyl ethyl ether	8260B	µg/L			1	U	5	U	1	U		
tert-Butylbenzene	8260B	µg/L			5	U	5	U	5	U		
Tertiary amyl methyl ether	8260B	µg/L			1	U	5	U	1	U		
Tertiary butyl alcohol	8260B	µg/L			50	U	50	U	50	U		
Tetrachloroethene	8260B	µg/L			1	U	5	U	1	U		
Tetryl	8330A	µg/L			0.6	U						
Thallium	6020A	mg/L	0.001	U	0.001	U					0.001	U
Tin	6010C	mg/L	0.04	U	0.04	U					0.04	U
Titanium	6010C	mg/L	0.02	U	0.02	U					0.02	U
Toluene	8260B	µg/L			1	U	5	U	1	U		
trans-1,2-Dichloroethene	8260B	µg/L			1	U	5	U	1	U		
trans-1,3-Dichloropropene	8260B	µg/L			1	U	5	U	1	U		
Trichloroethene	8260B	µg/L			1	U	5	U	1	U		
Trichlorofluoromethane	8260B	µg/L			1	U	5	U	1	U		
Triethylene Glycol	8015C	mg/L			10	U						
Vanadium	6010C	mg/L	0.01	U	0.01	U					0.01	U
Vinyl Acetate	8260B	µg/L			10	U	10	U	10	U		
Vinyl Chloride	8260B	µg/L			1	U	5	U	1	U		
Zinc	6010C	mg/L	0.04	U	0.04	U					0.04	U
Zirconium	6010C	mg/L	0.1	U	0.1	U					0.1	U

Notes:
ug/L - microgram per liter
mg/L - milligram per liter
ng/L - nanogram per liter
pg/L - picogram per liter
U - Compound not detected above the reporting limit

Table C-2
Go-Backs, Trenches and Soil Vapor Locations - Equipment Blanks

	Sample Name:	EB1-061814		EB2-051414		EB2-051514		EB2-052214		EB2-052914	
	Location:	EQUIPMENT BLANK FDG		EQUIPMENT BLANK FDG		EQUIPMENT BLANK SV		EQUIPMENT BLANK FDG		EQUIPMENT BLANK SV	
	Sample Date:	06/18/2014		05/14/2014		05/15/2014		05/22/2014		05/29/2014	
	Sample Type:	EB		EB		EB		EB		EB	
	Lab:	LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	µg/L	1	U			5	U			1	U
1,1,1-Trichloroethane	8260B	µg/L	1	U			5	U			1	U
1,1,2,2-Tetrachloroethane	8260B	µg/L	1	U			5	U			1	U
1,1,2-Trichloro-1,2,2-trifluoroethane	8260B	µg/L	10	U			5	U			10	U
1,1,2-Trichloroethane	8260B	µg/L	1	U			5	U			1	U
1,1'-Biphenyl	8270D	µg/L										
1,1-Dichloroethane	8260B	µg/L	1	U			5	U			1	U
1,1-Dichloroethene	8260B	µg/L	1	U			5	U			1	U
1,1-Dichloropropene	8260B	µg/L	5	U			5	U			5	U
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	1613B	pg/L	29.4		11.2	U			9.78	U		
1,2,3,4,6,7,8-HPCDF	1613B	pg/L	10.4	U	11.2	U			9.78	U		
1,2,3,4,7,8,9-HPCDF	1613B	pg/L	10.4	U	11.2	U			9.78	U		
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	10.4	U	11.2	U			9.78	U		
1,2,3,4,7,8-HXCDF	1613B	pg/L	10.4	U	11.2	U			9.78	U		
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	10.4	U	11.2	U			9.78	U		
1,2,3,6,7,8-HXCDF	1613B	pg/L	10.4	U	11.2	U			9.78	U		
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	1.57	J	11.2	U			9.78	U		
1,2,3,7,8,9-HXCDF	1613B	pg/L	2.78	J	11.2	U			9.78	U		
1,2,3,7,8-Pentachlorodibenzofuran	1613B	pg/L	10.4	U	11.2	U			9.78	U		
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1613B	pg/L	10.4	U	11.2	U			9.78	U		
1,2,3-Trichlorobenzene	8260B	µg/L	5	U			5	U			5	U
1,2,3-Trichloropropane	8260B	µg/L	5	U			5	U			5	U
1,2,4-Trichlorobenzene	8260B	µg/L	5	U			5	U			5	U
1,2,4-Trichlorobenzene	8270D	µg/L										
1,2,4-Trimethylbenzene	8260B	µg/L	5	U			5	U			5	U
1,2-Dibromo-3-chloropropane	8260B	µg/L	5	U			5	U			5	U
1,2-Dibromoethane	8260B	µg/L	1	U			5	U			1	U
1,2-Dichlorobenzene	8260B	µg/L	5	U			5	U			5	U
1,2-Dichlorobenzene	8270D	µg/L										
1,2-Dichloroethane	8260B	µg/L	1	U			5	U			1	U
1,2-Dichloropropane	8260B	µg/L	1	U			5	U			1	U
1,2-Diphenylhydrazine	8270D	µg/L										
1,3,5-Trimethylbenzene	8260B	µg/L	5	U			5	U			5	U
1,3,5-Trinitrobenzene	8330A	µg/L										
1,3-Dichlorobenzene	8260B	µg/L	5	U			5	U			5	U
1,3-Dichlorobenzene	8270D	µg/L										
1,3-Dichloropropane	8260B	µg/L	1	U			5	U			1	U
1,4-Dichlorobenzene	8260B	µg/L	5	U			5	U			5	U
1,4-Dichlorobenzene	8270D	µg/L										
1,4-Dioxane	8260B SIM	µg/L	2	U								
1-Chlorohexane	8260B	µg/L	5	U			5	U			5	U
1-Methylnaphthalene	8270D	µg/L										
1-Methylnaphthalene	8270D SIM	µg/L	0.011	J	0.053	U			0.033	J		
2,2-Dichloropropane	8260B	µg/L	1	U			5	U			1	U
2,2-Dichlor-Propionic Acid	8151A	µg/L										
2,3,4,6,7,8-HXCDF	1613B	pg/L	10.4	U	11.2	U			9.78	U		
2,3,4,7,8-PECDF	1613B	pg/L	10.4	U	11.2	U			9.78	U		
2,3,7,8-TCDD	1613B	pg/L	0.812	J	2.24	U			1.96	U		
2,3,7,8-Tetrachlorodibenzofuran	1613B	pg/L	2.08	U	2.24	U			0.119	J		
2,4,5-T	8151A	µg/L										
2,4,5-Trichlorophenol	8270D	µg/L										
2,4,6-Trichlorophenol	8270D	µg/L										
2,4,6-Trinitrotoluene	8330A	µg/L										
2,4-D	8151A	µg/L										
2,4-DB	8151A	µg/L										
2,4-Diamino-6-nitrotoluene	8330A	µg/L										
2,4-Dichlorophenol	8270D	µg/L										
2,4-Dimethylphenol	8270D	µg/L										
2,4-Dinitrophenol	8270D	µg/L										
2,4-Dinitrotoluene	8330A	µg/L										
2,6-Diamino-4-nitrotoluene	8330A	µg/L										
2,6-Dichlorophenol	8270D	µg/L										
2,6-Dinitrotoluene	8330A	µg/L										
2-Amino-4,6-Dinitrotoluene	8330A	µg/L										
2-Butanone (MEK)	8260B	µg/L	3	J			10	U			10	U
2-Chloro-1,1,1-trifluoroethane	8260B	µg/L	5	U			5	U			5	U
2-Chloroethyl Vinyl Ether	8260B	µg/L	10	U			10	U			10	U
2-Chloronaphthalene	8270D	µg/L										
2-Chlorophenol	8270D	µg/L										
2-Chlorotoluene	8260B	µg/L	5	U			5	U			5	U
2-Hexanone	8260B	µg/L	10	U			10	U			10	U
2-Methylnaphthalene	8270D	µg/L										
2-Methylnaphthalene	8270D SIM	µg/L	0.015	J	0.053	U			0.052	J		
2-Methylphenol	8270D	µg/L										
2-Nitroaniline	8270D	µg/L										
2-Nitrophenol	8270D	µg/L										
2-Nitrotoluene	8330A	µg/L										
2-Phenylbutane	8260B	µg/L	5	U			5	U			5	U
3,3'-Dichlorobenzidine	8270D	µg/L										
3,5-Dimethylphenol	8270D	µg/L										
3-Nitroaniline	8270D	µg/L										
3-Nitrotoluene	8330A	µg/L										
4,4'-DDD	8081B	µg/L							0.018	UJ		
4,4'-DDE	8081B	µg/L							0.018	UJ		
4,4'-DDT	8081B	µg/L							0.018	UJ		
4,6-Dinitro-2-methylphenol	8270D	µg/L										
4-Amino-2,6-Dinitrotoluene	8330A	µg/L										
4-Bromophenyl-phenylether	8270D	µg/L										
4-Chloro-3-methylphenol	8270D	µg/L										
4-Chloroaniline	8270D	µg/L										
4-Chlorophenyl-phenylether	8270D	µg/L										
4-Chlorotoluene	8260B	µg/L	5	U			5	U			5	U
4-Methyl-2-pentanone (MIBK)	8260B	µg/L	10	U			10	U			10	U
4-Methylphenol	8270D	µg/L										
4-Nitroaniline	8270D	µg/L										
4-Nitrophenol	8270D	µg/L										
4-Nitrotoluene	8330A	µg/L										
Acenaphthene	8270D	µg/L										
Acenaphthene	8270D SIM	µg/L	0.052	U	0.053	U			0.054	UJ		
Acenaphthylene	8270D	µg/L										
Acenaphthylene	8270D SIM	µg/L	0.052	U	0.053	U			0.054	UJ		
Acetone	8260B	µg/L	20	U			20	U			20	U
Acrolein	8260B	µg/L	100	U			100	U			100	U
Acrylonitrile	8260B	µg/L	20	U			20	U			20	U
Aldrin	8081B	µg/L							0.0092	UJ		
Alpha-Bhc	8081B	µg/L							0.0092	UJ		
Aluminum	6010C	mg/L	0.4	U	0.4	U			0.4	U		
Aniline	8270D	µg/L										
Anthracene	8270D	µg/L										
Anthracene	8270D SIM	µg/L	0.052	U	0.053	U			0.054	UJ		
Antimony	6010C	mg/L	0.04	U	0.04	U			0.04	U		

Table C-2
Go-Backs, Trenches and Soil Vapor Locations - Equipment Blanks

	Sample Name:	EB1-061814		EB2-051414		EB2-051514		EB2-052214		EB2-052914	
	Location:	EQUIPMENT BLANK FDG		EQUIPMENT BLANK FDG		EQUIPMENT BLANK SV		EQUIPMENT BLANK FDG		EQUIPMENT BLANK SV	
	Sample Date:	06/18/2014		05/14/2014		05/15/2014		05/22/2014		05/29/2014	
	Sample Type:	EB		EB		EB		EB		EB	
	Lab:	LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Aroclor 1016	8082A	µg/L	0.43	U	0.4	U			0.42	U		
Aroclor 1221	8082A	µg/L	0.43	U	0.4	U			0.42	U		
Aroclor 1232	8082A	µg/L	0.43	U	0.4	U			0.42	U		
Aroclor 1242	8082A	µg/L	0.43	U	0.4	U			0.42	U		
Aroclor 1248	8082A	µg/L	0.43	U	0.4	U			0.42	U		
Aroclor 1254	8082A	µg/L	0.43	U	0.4	U			0.42	U		
Aroclor 1260	8082A	µg/L	0.43	U	0.4	U			0.42	U		
Aroclor 1262	8082A	µg/L	0.43	U	0.4	U			0.42	U		
Aroclor 1268	8082A	µg/L	0.43	U	0.4	U			0.42	U		
Aroclor 5432	8082A	µg/L	0.43	UJ	0.4	U			0.42	U		
Aroclor 5442	8082A	µg/L	0.43	UJ	0.4	U			0.42	U		
Aroclor 5460	8082A	µg/L	0.43	UJ	0.4	U			0.42	U		
Arsenic	6010C	mg/L	0.04	U	0.04	U			0.04	U		
Barium	6010C	mg/L	0.01	U	0.01	U			0.01	U		
Benzene	8260B	µg/L	1	U			5	U			1	U
Benzidine	8270D	µg/L										
Benzo(a)anthracene	8270D	µg/L										
Benzo(a)anthracene	8270D SIM	µg/L	0.052	U	0.053	U			0.054	UJ		
Benzo(a)pyrene	8270D	µg/L										
Benzo(a)pyrene	8270D SIM	µg/L	0.052	U	0.053	U			0.054	UJ		
Benzo(b)fluoranthene	8270D	µg/L										
Benzo(b)fluoranthene	8270D SIM	µg/L	0.052	U	0.053	U			0.054	UJ		
Benzo(e)pyrene	8270D SIM	µg/L	0.052	U	0.053	U			0.054	UJ		
Benzo(g,h,i)perylene	8270D	µg/L										
Benzo(g,h,i)perylene	8270D SIM	µg/L	0.052	U	0.053	U			0.054	UJ		
Benzo(k)fluoranthene	8270D	µg/L										
Benzo(k)fluoranthene	8270D SIM	µg/L	0.052	U	0.053	U			0.054	UJ		
Benzoic Acid	8270D	µg/L										
Benzyl Alcohol	8270D	µg/L										
Beryllium	6010C	mg/L	0.01	U	0.01	U			0.01	U		
Beta-Bhc	8081B	µg/L							0.0092	UJ		
bis(2-chloroethoxy)methane	8270D	µg/L										
bis(2-chloroethyl) ether	8270D	µg/L										
bis(2-chloroisopropyl) ether	8270D	µg/L										
Bis(2-ethylhexyl)phthalate	8270D	µg/L										
Bis(2-ethylhexyl)phthalate	8270D SIM	µg/L	1	U	1.1	UJ			1.1	UJ		
Boron	6010C	mg/L	0.0061	J	0.1	U			0.1	U		
Bromobenzene	8260B	µg/L	5	U			5	U			5	U
Bromochloromethane	8260B	µg/L	5	U			5	U			5	U
Bromodichloromethane	8260B	µg/L	1	U			5	U			1	U
Bromoform	8260B	µg/L	4	U			5	U			4	U
Bromomethane	8260B	µg/L	1	U			5	U			1	U
Butylbenzylphthalate	8270D	µg/L										
Butylbenzylphthalate	8270D SIM	µg/L	1	U	1.1	U			1.1	UJ		
Cadmium	6010C	mg/L	0.00037	J	0.01	U			0.01	U		
Calcium	6010C	mg/L	0.4	U	0.4	U			0.4	U		
Carbazole	8270D	µg/L										
Carbon Disulfide	8260B	µg/L	5	U			5	U			5	U
Carbon Tetrachloride	8260B	µg/L	1	U			5	U			1	U
Chlordane	8081B	µg/L							0.46	UJ		
Chlorobenzene	8260B	µg/L	1	U			5	U			1	U
Chloroethane	8260B	µg/L	1	U			5	U			1	U
Chloroform	8260B	µg/L	1	U			5	U			1	U
Chloromethane	8260B	µg/L	1	U			5	U			1	U
Chlorotrifluoroethylene	8260B	µg/L	5	U			5	UJ			5	U
Chromium	6010C	mg/L	0.03	U	0.03	U			0.03	U		
Chromium (Hexavalent Compounds)	7199	µg/L										
Chrysene	8270D	µg/L										
Chrysene	8270D SIM	µg/L	0.052	U	0.053	U			0.054	UJ		
cis-1,2-Dichloroethene	8260B	µg/L	1	U			5	U			1	U
cis-1,3-Dichloropropene	8260B	µg/L	1	U			5	U			1	U
Cobalt	6010C	mg/L	0.01	U	0.01	U			0.01	U		
Copper	6010C	mg/L	0.02	U	0.02	U			0.02	U		
Cymene	8260B	µg/L	5	U			5	U			5	U
Delta-Bhc	8081B	µg/L							0.0092	UJ		
Di isopropyl Ether	8260B	µg/L	1	U			5	U			1	U
Dibenzo(a,h)anthracene	8270D	µg/L										
Dibenzo(a,h)anthracene	8270D SIM	µg/L	0.052	U	0.053	UJ			0.054	UJ		
Dibenzofuran	8270D	µg/L										
Dibromochloromethane	8260B	µg/L	1	U			5	U			1	U
Dibromomethane	8260B	µg/L	1	U			5	U			1	U
Dicamba	8151A	µg/L										
Dichlorodifluoromethane	8260B	µg/L	1	U			5	U			1	U
Dichlorprop	8151A	µg/L										
Dieldrin	8081B	µg/L							0.018	UJ		
Diethylene Glycol	8015C	mg/L										
Diethylphthalate	8270D	µg/L										
Diethylphthalate	8270D SIM	µg/L	0.11	J	1.1	U			1.1	UJ		
Dimethylphthalate	8270D	µg/L										
Dimethylphthalate	8270D SIM	µg/L	1	U	1.1	U			1.1	UJ		
Di-n-butylphthalate	8270D	µg/L										
Di-n-butylphthalate	8270D SIM	µg/L	1	U	1.1	U			0.1	J		
Dinitrobutyl Phenol	8151A	µg/L										
Di-n-octylphthalate	8270D	µg/L										
Di-n-octylphthalate	8270D SIM	µg/L	1	U	1.1	UJ			1.1	UJ		
Diphenylamine	8270D	µg/L										
EFH (C12-C14)	8015M	mg/L	0.098	U	0.097	U			0.1	UJ		
EFH (C12-C14) w/ Silica Gel	8015M	mg/L	0.098	UJ	0.097	UJ			0.1	UJ		
EFH (C15-C20)	8015M	mg/L	0.098	U	0.097	U			0.1	UJ		
EFH (C15-C20) w/ Silica Gel	8015M	mg/L	0.098	UJ	0.097	U			0.1	UJ		
EFH (C21-C30)	8015M	mg/L	0.098	U	0.097	U			0.1	UJ		
EFH (C21-C30) w/ Silica Gel	8015M	mg/L	0.098	UJ	0.097	UJ			0.1	UJ		
EFH (C30-C40)	8015M	mg/L	0.49	UJ	0.49	U			0.5	UJ		
EFH (C30-C40) w/ Silica Gel	8015M	mg/L	0.49	UJ	0.49	U			0.5	UJ		
EFH (C8-C11)	8015M	mg/L	0.098	U	0.097	U			0.1	UJ		
EFH (C8-C11) w/ Silica Gel	8015M	mg/L	0.098	UJ	0.097	UJ			0.1	UJ		
Endosulfan I	8081B	µg/L							0.0092	UJ		
Endosulfan II	8081B	µg/L							0.018	UJ		
Endosulfan Sulfate	8081B	µg/L							0.018	UJ		
Endrin	8081B	µg/L							0.018	UJ		
Endrin Aldehyde	8081B	µg/L							0.092	UJ		
Endrin Ketone	8081B	µg/L							0.018	UJ		
Ethylbenzene	8260B	µg/L	1	U			5	U			1	U
Ethylene Glycol	8015C	mg/L										
Fluoranthene	8270D	µg/L										
Fluoranthene	8270D SIM	µg/L	0.052	U	0.053	U			0.054	UJ		
Fluorene	8270D	µg/L										
Fluorene	8270D SIM	µg/L	0.052	U	0.053	U			0.054	UJ		
Formaldehyde	8315A	µg/L							50	UJ		
Gamma-Bhc (Lindane)	8081B	µg/L							0.0092	UJ		
Gasoline Range Organics (C5-C12)	8015M	µg/L	50	U	50	U						

Table C-2
Go-Backs, Trenches and Soil Vapor Locations - Equipment Blanks

	Sample Name:	EB1-061814		EB2-051414		EB2-051514		EB2-052214		EB2-052914	
	Location:	EQUIPMENT BLANK FDG		EQUIPMENT BLANK FDG		EQUIPMENT BLANK SV		EQUIPMENT BLANK FDG		EQUIPMENT BLANK SV	
	Sample Date:	06/18/2014		05/14/2014		05/15/2014		05/22/2014		05/29/2014	
	Sample Type:	EB		EB		EB		EB		EB	
	Lab:	LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Heptachlor	8081B	µg/L							0.0092	UJ		
Heptachlor Epoxide	8081B	µg/L							0.0092	UJ		
Hexachloro-1,3-butadiene	8260B	µg/L	5	U			5	U			5	U
Hexachlorobenzene	8270D	µg/L										
Hexachlorobutadiene	8270D	µg/L										
Hexachlorocyclopentadiene	8270D	µg/L										
Hexachloroethane	8270D	µg/L										
HMX	8330A	µg/L										
Indeno(1,2,3-cd)pyrene	8270D	µg/L										
Indeno(1,2,3-cd)pyrene	8270D SIM	µg/L	0.052	U	0.053	U			0.054	UJ		
Iron	6010C	mg/L	0.4	U	0.4	U			0.4	U		
Isophorone	8270D	µg/L										
Isopropylbenzene	8260B	µg/L	5	U			5	U			5	U
Lead	6010C	mg/L	0.03	U	0.03	U			0.03	U		
Lithium	6010C	mg/L	0.04	U	0.04	U			0.04	U		
m,p-Xylene	8260B	µg/L	1	U			5	U			1	U
Magnesium	6010C	mg/L	0.2	U	0.2	U			0.2	U		
Manganese	6010C	mg/L	0.01	U	0.01	U			0.01	U		
MCPA	8151A	µg/L										
MCPP	8151A	µg/L										
M-Dinitrobenzene	8330A	µg/L										
Mercury	7470A	mg/L	0.0002	U	0.0002	U			0.0002	U		
Methoxychlor	8081B	µg/L							0.092	UJ		
Methyl Iodide	8260B	µg/L	1	U			5	U			1	U
Methyl Tert-Butyl Ether	8260B	µg/L	1	U			5	U			1	U
Methylene Chloride	8260B	µg/L	3	U			5	U			3	U
Mirex	8081B	µg/L							0.046	UJ		
Molybdenum	6010C	mg/L	0.01	J	0.02	U			0.02	U		
Morpholine	8270D SIM	µg/L										
m-Terphenyl	8015B	mg/L										
Naphthalene	8270D	µg/L										
Naphthalene	8270D SIM	µg/L	0.036	J	0.053	U			0.15	J		
n-Butylbenzene	8260B	µg/L	5	U			5	U			5	U
Nickel	6010C	mg/L	0.02	U	0.02	U			0.02	U		
Nitrobenzene	8270D	µg/L										
Nitrobenzene	8330A	µg/L										
Nitroglycerin	8330A	µg/kg										
N-Nitrosodimethylamine	8270D	µg/L										
N-Nitrosodimethylamine	8270D SIM	µg/L	0.052	U	0.053	U			0.054	UJ		
N-Nitroso-di-n-propylamine	8270D	µg/L										
N-Nitrosodiphenylamine	8270D	µg/L										
n-Propylbenzene	8260B	µg/L	5	U			5	U			5	U
OCDD	1613B	pg/L	20.8	U	22.4	U			19.6	U		
OCDF	1613B	pg/L	20.8	U	22.4	U			19.6	U		
o-Terphenyl	8015B	mg/L										
o-Xylene	8260B	µg/L	1	U			5	U			1	U
Pentachlorophenol	8270D	µg/L										
Perchlorate	6850	µg/L			0.4	J						
PETN	8330A	µg/kg										
pH	9040C	pH	5.2		5.8				6.8			
Phenanthrene	8270D	µg/L										
Phenanthrene	8270D SIM	µg/L	0.052	U	0.053	U			0.054	UJ		
Phenol	8270D	µg/L										
Phosphorus	6010C	mg/L	0.2	U	0.2	U			0.2	U		
Potassium	6010C	mg/L	1	U	0.114	J			1	U		
Propylene Glycol	8015C	mg/L										
p-Terphenyl	8015B	mg/L										
Pyrene	8270D	µg/L										
Pyrene	8270D SIM	µg/L	0.052	U	0.053	U			0.054	UJ		
Pyridine	8270D	µg/L										
RDX	8330A	µg/L										
Selenium	6020A	mg/L	0.004	U	0.004	U			0.004	U		
Silver	6020A	mg/L	0.001	U	0.001	U			0.001	U		
Silvex (2,4,5-TP)	8151A	µg/L										
Sodium	6010C	mg/L	2	U	2	U			2	U		
Strontium	6020A	mg/L	0.002	U	0.002	U			0.002	U		
Styrene	8260B	µg/L	5	U			5	U			5	U
Technical Toxaphene	8081B	µg/L							0.92	UJ		
tert-Butyl ethyl ether	8260B	µg/L	1	U			5	U			1	U
tert-Butylbenzene	8260B	µg/L	5	U			5	U			5	U
Tertiary amyl methyl ether	8260B	µg/L	1	U			5	U			1	U
Tertiary butyl alcohol	8260B	µg/L	50	U			50	U			50	U
Tetrachloroethene	8260B	µg/L	1	U			5	U			1	U
Tetryl	8330A	µg/L										
Thallium	6020A	mg/L	0.001	U	0.001	U			0.001	U		
Tin	6010C	mg/L	0.04	U	0.04	U			0.04	U		
Titanium	6010C	mg/L	0.02	U	0.02	U			0.02	U		
Toluene	8260B	µg/L	1	U			5	U			1	U
trans-1,2-Dichloroethene	8260B	µg/L	1	U			5	U			1	U
trans-1,3-Dichloropropene	8260B	µg/L	1	U			5	U			1	U
Trichloroethene	8260B	µg/L	1	U			5	U			1	U
Trichlorofluoromethane	8260B	µg/L	1	U			5	U			1	U
Triethylene Glycol	8015C	mg/L										
Vanadium	6010C	mg/L	0.01	U	0.01	U			0.01	U		
Vinyl Acetate	8260B	µg/L	10	UJ			10	U			10	U
Vinyl Chloride	8260B	µg/L	1	U			5	U			1	U
Zinc	6010C	mg/L	0.04	U	0.04	U			0.04	U		
Zirconium	6010C	mg/L	0.1	U	0.1	U			0.1	U		

Notes:
ug/L - microgram per liter
mg/L - milligram per liter
ng/L - nanogram per liter
pg/L - picogram per liter
U - Compound not detected above the reporting limit

Table C-2
Go-Backs, Trenches and Soil Vapor Locations - Equipment Blanks

	Sample Name:	EB2-060414		EB2-061114		EB2-061214		EB3-052214		EB3-060414	
	Location:	EQUIPMENT BLANK SV		EQUIPMENT BLANK SV		EQUIPMENT BLANK FDG		EQUIPMENT BLANK TR		EQUIPMENT BLANK TR	
	Sample Date:	06/04/2014		06/11/2014		06/12/2014		05/22/2014		06/04/2014	
	Sample Type:	EB		EB		EB		EB		EB	
	Lab:	LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	µg/L	5	U	1	U			5	U		
1,1,1-Trichloroethane	8260B	µg/L	5	U	1	U			5	U		
1,1,2,2-Tetrachloroethane	8260B	µg/L	5	U	1	U			5	U		
1,1,2-Trichloro-1,2,2-trifluoroethane	8260B	µg/L	5	U	10	U			5	U		
1,1,2-Trichloroethane	8260B	µg/L	5	U	1	U			5	U		
1,1'-Biphenyl	8270D	µg/L									1	U
1,1-Dichloroethane	8260B	µg/L	5	U	1	U			5	U		
1,1-Dichloroethene	8260B	µg/L	5	U	1	U			5	U		
1,1-Dichloropropene	8260B	µg/L	5	U	5	U			5	U		
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	1613B	pg/L					9.86	U	9.56	U	9.57	U
1,2,3,4,6,7,8-HPCDF	1613B	pg/L					9.86	U	9.56	U	9.57	U
1,2,3,4,7,8,9-HPCDF	1613B	pg/L					0.367	J	9.56	U	9.57	U
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L					9.86	U	9.56	U	9.57	U
1,2,3,4,7,8-HXCDF	1613B	pg/L					9.86	U	9.56	U	9.57	U
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L					9.86	U	9.56	U	0.313	J
1,2,3,6,7,8-HXCDF	1613B	pg/L					9.86	U	9.56	U	9.57	U
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	1613B	pg/L					9.86	U	9.56	U	9.57	U
1,2,3,7,8,9-HXCDF	1613B	pg/L					9.86	U	9.56	U	9.57	U
1,2,3,7,8-Pentachlorodibenzofuran	1613B	pg/L					9.86	U	9.56	U	9.57	U
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1613B	pg/L					0.251	J	9.56	U	9.57	U
1,2,3-Trichlorobenzene	8260B	µg/L	5	U	5	U			5	U		
1,2,3-Trichloropropane	8260B	µg/L	5	U	5	U			5	U		
1,2,4-Trichlorobenzene	8260B	µg/L	5	U	5	U			5	U		
1,2,4-Trichlorobenzene	8270D	µg/L									1	UJ
1,2,4-Trimethylbenzene	8260B	µg/L	5	U	5	U			5	U		
1,2-Dibromo-3-chloropropane	8260B	µg/L	5	U	5	U			5	U		
1,2-Dibromoethane	8260B	µg/L	5	U	1	U			5	U		
1,2-Dichlorobenzene	8260B	µg/L	5	U	5	U			5	U		
1,2-Dichlorobenzene	8270D	µg/L									1	U
1,2-Dichloroethane	8260B	µg/L	5	U	1	U			5	U		
1,2-Dichloropropane	8260B	µg/L	5	U	1	U			5	U		
1,2-Diphenylhydrazine	8270D	µg/L									1	U
1,3,5-Trimethylbenzene	8260B	µg/L	5	U	5	U			5	U		
1,3,5-Trinitrobenzene	8330A	µg/L									0.6	U
1,3-Dichlorobenzene	8260B	µg/L	5	U	5	U			5	U		
1,3-Dichlorobenzene	8270D	µg/L									1	U
1,3-Dichloropropane	8260B	µg/L	5	U	1	U			5	U		
1,4-Dichlorobenzene	8260B	µg/L	5	U	5	U			5	U		
1,4-Dichlorobenzene	8270D	µg/L									1	U
1,4-Dioxane	8260B SIM	µg/L										
1-Chlorohexane	8260B	µg/L	5	U	5	U			5	U		
1-Methylnaphthalene	8270D	µg/L									0.6	U
1-Methylnaphthalene	8270D SIM	µg/L					0.02	J	0.051	UJ	0.02	J
2,2-Dichloropropane	8260B	µg/L	5	U	1	U			5	U		
2,2-Dichlor-Propionic Acid	8151A	µg/L									1.2	U
2,3,4,6,7,8-HXCDF	1613B	pg/L					9.86	U	9.56	U	9.57	U
2,3,4,7,8-PECDF	1613B	pg/L					0.234	J	9.56	U	9.57	U
2,3,7,8-TCDD	1613B	pg/L					1.97	U	1.91	U	0.262	J
2,3,7,8-Tetrachlorodibenzofuran	1613B	pg/L					1.97	U	0.203	J	1.91	U
2,4,5-T	8151A	µg/L									0.048	U
2,4,5-Trichlorophenol	8270D	µg/L									1	U
2,4,6-Trichlorophenol	8270D	µg/L									1	U
2,4,6-Trinitrotoluene	8330A	µg/L									0.6	U
2,4-D	8151A	µg/L									0.48	U
2,4-DB	8151A	µg/L									0.96	U
2,4-Diamino-6-nitrotoluene	8330A	µg/L									0.6	U
2,4-Dichlorophenol	8270D	µg/L									1	U
2,4-Dimethylphenol	8270D	µg/L									1	U
2,4-Dinitrophenol	8270D	µg/L									34	U
2,4-Dinitrotoluene	8330A	µg/L									0.6	U
2,6-Diamino-4-nitrotoluene	8330A	µg/L									0.6	U
2,6-Dichlorophenol	8270D	µg/L									1	U
2,6-Dinitrotoluene	8330A	µg/L									0.6	U
2-Amino-4,6-Dinitrotoluene	8330A	µg/L									0.6	U
2-Butanone (MEK)	8260B	µg/L	10	U	10	U			10	U		
2-Chloro-1,1,1-trifluoroethane	8260B	µg/L	5	U	5	U			5	U		
2-Chloroethyl Vinyl Ether	8260B	µg/L	10	U	10	U			10	U		
2-Chloronaphthalene	8270D	µg/L									1	U
2-Chlorophenol	8270D	µg/L									1	U
2-Chlorotoluene	8260B	µg/L	5	U	5	U			5	U		
2-Hexanone	8260B	µg/L	10	U	10	U			10	U		
2-Methylnaphthalene	8270D	µg/L									0.6	U
2-Methylnaphthalene	8270D SIM	µg/L					0.028	J	0.051	U	0.028	J
2-Methylphenol	8270D	µg/L									1	U
2-Nitroaniline	8270D	µg/L									1	U
2-Methylphenol	8270D	µg/L									1	U
2-Nitroaniline	8270D	µg/L									1	U
2-Nitrophenol	8270D	µg/L									1	U
2-Nitrotoluene	8330A	µg/L									0.6	U
2-Phenylbutane	8260B	µg/L	5	U	5	U			5	U		
3,3'-Dichlorobenzidine	8270D	µg/L									6	U
3,5-Dimethylphenol	8270D	µg/L									11	U
3-Nitroaniline	8270D	µg/L									1	U
3-Nitrotoluene	8330A	µg/L									1.2	U
4,4'-DDD	8081B	µg/L					0.017	U			0.017	U
4,4'-DDE	8081B	µg/L					0.017	U			0.017	U
4,4'-DDT	8081B	µg/L					0.017	U			0.017	U
4,6-Dinitro-2-methylphenol	8270D	µg/L									17	U
4-Amino-2,6-Dinitrotoluene	8330A	µg/L									0.6	U
4-Bromophenyl-phenylether	8270D	µg/L									1	U
4-Chloro-3-methylphenol	8270D	µg/L									1	U
4-Chloroaniline	8270D	µg/L									1	U
4-Chlorophenyl-phenylether	8270D	µg/L									1	U
4-Chlorotoluene	8260B	µg/L	5	U	5	U			5	U		
4-Methyl-2-pentanone (MIBK)	8260B	µg/L	10	U	10	U			10	U		
4-Methylphenol	8270D	µg/L									1	U
4-Nitroaniline	8270D	µg/L									1	U
4-Nitrophenol	8270D	µg/L									34	U
4-Nitrotoluene	8330A	µg/L									1.2	U
Acenaphthene	8270D	µg/L									0.6	U
Acenaphthene	8270D SIM	µg/L					0.057	U	0.051	U	0.057	U
Acenaphthylene	8270D	µg/L									0.6	U
Acenaphthylene	8270D SIM	µg/L					0.057	U	0.051	U	0.057	U
Acetone	8260B	µg/L	20	U	20	U			20	U		
Acrolein	8260B	µg/L	100	U	100	U			100	U		
Acrylonitrile	8260B	µg/L	20	U	20	U			20	U		
Aldrin	8081B	µg/L					0.0084	U			0.0083	UJ
Alpha-Bhc	8081B	µg/L					0.0084	U			0.0083	U
Aluminum	6010C	mg/L					0.4	U	0.4	U	0.4	U
Aniline	8270D	µg/L									1	U
Anthracene	8270D	µg/L									0.6	U
Anthracene	8270D SIM	µg/L					0.057	U	0.051	U	0.057	U
Antimony	6010C	mg/L					0.04	U	0.04	U	0.04	U

Table C-2
Go-Backs, Trenches and Soil Vapor Locations - Equipment Blanks

	Sample Name:	EB2-060414		EB2-061114		EB2-061214		EB3-052214		EB3-060414	
	Location:	EQUIPMENT BLANK SV		EQUIPMENT BLANK SV		EQUIPMENT BLANK FDG		EQUIPMENT BLANK TR		EQUIPMENT BLANK TR	
	Sample Date:	06/04/2014		06/11/2014		06/12/2014		05/22/2014		06/04/2014	
	Sample Type:	EB		EB		EB		EB		EB	
	Lab:	LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Aroclor 1016	8082A	µg/L					0.42	UJ	0.42	U	0.42	U
Aroclor 1221	8082A	µg/L					0.42	UJ	0.42	U	0.42	U
Aroclor 1232	8082A	µg/L					0.42	UJ	0.42	U	0.42	U
Aroclor 1242	8082A	µg/L					0.42	UJ	0.42	U	0.42	U
Aroclor 1248	8082A	µg/L					0.42	UJ	0.42	U	0.42	U
Aroclor 1254	8082A	µg/L					0.42	UJ	0.42	U	0.42	U
Aroclor 1260	8082A	µg/L					0.42	UJ	0.42	U	0.42	U
Aroclor 1262	8082A	µg/L					0.42	UJ	0.42	U	0.42	U
Aroclor 1268	8082A	µg/L					0.42	UJ	0.42	U	0.42	U
Aroclor 5432	8082A	µg/L					0.42	U	0.42	U	0.42	U
Aroclor 5442	8082A	µg/L					0.42	U	0.42	U	0.42	U
Aroclor 5460	8082A	µg/L					0.42	U	0.42	U	0.42	U
Arsenic	6010C	mg/L					0.04	U	0.04	U	0.04	U
Barium	6010C	mg/L					0.01	U	0.01	U	0.0007	J
Benzene	8260B	µg/L	5	U	1	U			5	U		
Benzidine	8270D	µg/L										
Benzo(a)anthracene	8270D	µg/L									0.6	U
Benzo(a)anthracene	8270D SIM	µg/L					0.057	U	0.051	U	0.057	U
Benzo(a)pyrene	8270D	µg/L									0.6	U
Benzo(a)pyrene	8270D SIM	µg/L					0.057	U	0.051	U	0.057	U
Benzo(b)fluoranthene	8270D	µg/L									0.6	U
Benzo(b)fluoranthene	8270D SIM	µg/L					0.057	U	0.051	U	0.057	U
Benzo(e)pyrene	8270D SIM	µg/L					0.057	U	0.051	U	0.057	U
Benzo(g,h,i)perylene	8270D	µg/L									0.6	U
Benzo(g,h,i)perylene	8270D SIM	µg/L					0.057	U	0.051	U	0.057	U
Benzo(k)fluoranthene	8270D	µg/L									0.6	U
Benzo(k)fluoranthene	8270D SIM	µg/L					0.057	U	0.051	U	0.057	U
Benzoic Acid	8270D	µg/L									17	U
Benzyl Alcohol	8270D	µg/L									17	U
Beryllium	6010C	mg/L					0.01	U	0.01	U	0.01	U
Beta-Bhc	8081B	µg/L					0.009	U			0.0083	U
bis(2-chloroethoxy)methane	8270D	µg/L									1	U
bis(2-chloroethyl) ether	8270D	µg/L									1	U
bis(2-chloroisopropyl) ether	8270D	µg/L									1	U
Bis(2-ethylhexyl)phthalate	8270D	µg/L									6	U
Bis(2-ethylhexyl)phthalate	8270D SIM	µg/L					1.1	UJ	1	UJ	1.1	UJ
Boron	6010C	mg/L					0.1	U	0.1	U	0.1	U
Bromobenzene	8260B	µg/L	5	U	5	U			5	U		
Bromochloromethane	8260B	µg/L	5	U	5	U			5	U		
Bromodichloromethane	8260B	µg/L	5	U	1	U			5	U		
Bromoform	8260B	µg/L	5	U	4	U			5	U		
Bromomethane	8260B	µg/L	5	U	1	U			5	U		
Butylbenzylphthalate	8270D	µg/L									6	U
Butylbenzylphthalate	8270D SIM	µg/L					1.1	U	1	U	1.1	U
Cadmium	6010C	mg/L					0.01	U	0.01	U	0.01	U
Calcium	6010C	mg/L					0.4	U	0.15	J	0.151	J
Carbazole	8270D	µg/L									1	U
Carbon Disulfide	8260B	µg/L	5	U	5	U			5	U		
Carbon Tetrachloride	8260B	µg/L	5	U	1	U			5	U		
Chlordane	8081B	µg/L					0.42	U			0.42	U
Chlorobenzene	8260B	µg/L	5	U	1	U			5	U		
Chloroethane	8260B	µg/L	5	U	1	U			5	U		
Chloroform	8260B	µg/L	5	U	1	U			5	U		
Chloromethane	8260B	µg/L	5	U	1	U			5	U		
Chlorotrifluoroethylene	8260B	µg/L	5	U	5	U			5	UJ		
Chromium	6010C	mg/L					0.03	U	0.03	U	0.03	U
Chromium (Hexavalent Compounds)	7199	µg/L									10	UJ
Chrysene	8270D	µg/L									0.6	U
Chrysene	8270D SIM	µg/L					0.057	U	0.051	U	0.057	U
cis-1,2-Dichloroethene	8260B	µg/L	5	U	1	U			5	U		
cis-1,3-Dichloropropene	8260B	µg/L	5	U	1	U			5	U		
Cobalt	6010C	mg/L					0.01	U	0.01	U	0.01	U
Copper	6010C	mg/L					0.02	U	0.02	U	0.02	U
Cymene	8260B	µg/L	5	U	5	U			5	U		
Delta-Bhc	8081B	µg/L					0.0084	U			0.0083	U
Di isopropyl Ether	8260B	µg/L	5	U	1	U			5	U		
Dibenzo(a,h)anthracene	8270D	µg/L									0.6	U
Dibenzo(a,h)anthracene	8270D SIM	µg/L					0.057	U	0.051	U	0.057	U
Dibenzofuran	8270D	µg/L									1	U
Dibromochloromethane	8260B	µg/L	5	U	1	U			5	U		
Dibromomethane	8260B	µg/L	5	U	1	U			5	U		
Dicamba	8151A	µg/L									0.29	U
Dichlorodifluoromethane	8260B	µg/L	5	U	1	U			5	U		
Dichlorprop	8151A	µg/L									0.48	U
Dieldrin	8081B	µg/L					0.017	U			0.017	U
Diethylene Glycol	8015C	mg/L									10	U
Diethylphthalate	8270D	µg/L									6	U
Diethylphthalate	8270D SIM	µg/L					1.1	U	0.097	J	1.1	U
Dimethylphthalate	8270D	µg/L									6	U
Dimethylphthalate	8270D SIM	µg/L					1.1	U	1	U	1.1	U
Di-n-butylphthalate	8270D	µg/L									6	U
Di-n-butylphthalate	8270D SIM	µg/L					1.1	U	0.1	J	0.14	J
Dinitrobutyl Phenol	8151A	µg/L									0.48	U
Di-n-octylphthalate	8270D	µg/L									6	U
Di-n-octylphthalate	8270D SIM	µg/L					1.1	UJ	1	U	1.1	U
Diphenylamine	8270D	µg/L									6	U
EFH (C12-C14)	8015M	mg/L					0.099	U	0.1	U	0.097	UJ
EFH (C12-C14) w/ Silica Gel	8015M	mg/L					0.099	UJ	0.1	U	0.097	UJ
EFH (C15-C20)	8015M	mg/L					0.099	U	0.1	U	0.097	U
EFH (C15-C20) w/ Silica Gel	8015M	mg/L					0.099	U	0.1	U	0.097	U
EFH (C21-C30)	8015M	mg/L					0.099	U	0.1	U	0.097	U
EFH (C21-C30) w/ Silica Gel	8015M	mg/L					0.099	UJ	0.1	U	0.097	U
EFH (C30-C40)	8015M	mg/L					0.49	U	0.5	U	0.48	U
EFH (C30-C40) w/ Silica Gel	8015M	mg/L					0.49	U	0.5	U	0.48	U
EFH (C8-C11)	8015M	mg/L					0.099	U	0.1	U	0.097	UJ
EFH (C8-C11) w/ Silica Gel	8015M	mg/L					0.099	UJ	0.1	U	0.097	UJ
Endosulfan I	8081B	µg/L					0.0084	U			0.0083	U
Endosulfan II	8081B	µg/L					0.017	U			0.017	U
Endosulfan Sulfate	8081B	µg/L					0.017	U			0.017	U
Endrin	8081B	µg/L					0.017	U			0.017	U
Endrin Aldehyde	8081B	µg/L					0.084	U			0.083	U
Endrin Ketone	8081B	µg/L					0.017	U			0.017	U
Ethylbenzene	8260B	µg/L	5	U	1	U			5	U		
Ethylene Glycol	8015C	mg/L									10	U
Fluoranthene	8270D	µg/L									0.6	U
Fluoranthene	8270D SIM	µg/L					0.057	U	0.051	U	0.057	U
Fluorene	8270D	µg/L									0.6	U
Fluorene	8270D SIM	µg/L					0.057	U	0.051	U	0.057	U
Formaldehyde	8315A	µg/L										
Gamma-Bhc (Lindane)	8081B	µg/L					0.0084	U			0.0083	U
Gasoline Range Organics (C5-C12)	8015M	µg/L					50	U	50	U	50	U

Table C-2
Go-Backs, Trenches and Soil Vapor Locations - Equipment Blanks

	Sample Name:	EB2-060414		EB2-061114		EB2-061214		EB3-052214		EB3-060414	
	Location:	EQUIPMENT BLANK SV		EQUIPMENT BLANK SV		EQUIPMENT BLANK FDG		EQUIPMENT BLANK TR		EQUIPMENT BLANK TR	
	Sample Date:	06/04/2014		06/11/2014		06/12/2014		05/22/2014		06/04/2014	
	Sample Type:	EB		EB		EB		EB		EB	
	Lab:	LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Heptachlor	8081B	µg/L					0.0084	U			0.0083	U
Heptachlor Epoxide	8081B	µg/L					0.0084	U			0.0083	U
Hexachloro-1,3-butadiene	8260B	µg/L	5	U	5	U			5	U		
Hexachlorobenzene	8270D	µg/L									0.6	U
Hexachlorobutadiene	8270D	µg/L									1	UJ
Hexachlorocyclopentadiene	8270D	µg/L									17	U
Hexachloroethane	8270D	µg/L									6	U
HMX	8330A	µg/L									2	U
Indeno(1,2,3-cd)pyrene	8270D	µg/L									0.6	U
Indeno(1,2,3-cd)pyrene	8270D SIM	µg/L					0.057	U	0.051	U	0.057	U
Iron	6010C	mg/L					0.4	U	0.4	U	0.4	U
Isophorone	8270D	µg/L									1	U
Isopropylbenzene	8260B	µg/L	5	U	5	U			5	U		
Lead	6010C	mg/L					0.03	U	0.03	U	0.03	U
Lithium	6010C	mg/L					0.04	U	0.04	U	0.04	U
m,p-Xylene	8260B	µg/L	5	U	1	U			5	U		
Magnesium	6010C	mg/L					0.2	U	0.2	U	0.2	U
Manganese	6010C	mg/L					0.01	U	0.0009	J	0.01	U
MCPA	8151A	µg/L									190	U
MCPP	8151A	µg/L									190	U
M-Dinitrobenzene	8330A	µg/L									0.6	U
Mercury	7470A	mg/L					0.0002	U	0.0002	U	0.0002	U
Methoxychlor	8081B	µg/L					0.084	U			0.083	U
Methyl Iodide	8260B	µg/L	5	U	1	U			5	U		
Methyl Tert-Butyl Ether	8260B	µg/L	5	U	1	U			5	U		
Methylene Chloride	8260B	µg/L	5	U	4				5	U		
Mirex	8081B	µg/L					0.042	U			0.042	U
Molybdenum	6010C	mg/L					0.02	U	0.02	U	0.02	U
Morpholine	8270D SIM	µg/L							20	U		
m-Terphenyl	8015B	mg/L									0.0048	U
Naphthalene	8270D	µg/L									0.6	U
Naphthalene	8270D SIM	µg/L					0.058		0.051	U	0.073	
n-Butylbenzene	8260B	µg/L	5	U	5	U			5	U		
Nickel	6010C	mg/L					0.02	U	0.02	U	0.02	U
Nitrobenzene	8270D	µg/L									1	U
Nitrobenzene	8330A	µg/L									0.6	U
Nitroglycerin	8330A	µg/kg									100000000	U
N-Nitrosodimethylamine	8270D	µg/L									6	U
N-Nitrosodimethylamine	8270D SIM	µg/L					0.057	UJ	0.051	U	0.057	U
N-Nitroso-di-n-propylamine	8270D	µg/L									1	U
N-Nitrosodiphenylamine	8270D	µg/L									1	U
n-Propylbenzene	8260B	µg/L	5	U	5	U			5	U		
OCDD	1613B	pg/L					19.7	U	19.1	U	19.1	U
OCDF	1613B	pg/L					1.06	J	19.1	U	19.1	U
o-Terphenyl	8015B	mg/L									0.0048	U
o-Xylene	8260B	µg/L	5	U	1	U			5	U		
Pentachlorophenol	8270D	µg/L									6	U
Perchlorate	6850	µg/L									1	U
PETN	8330A	µg/kg									100000000	U
pH	9040C	pH					5.3		7.2		6.4	
Phenanthrene	8270D	µg/L									0.6	U
Phenanthrene	8270D SIM	µg/L					0.057	U	0.051	U	0.057	U
Phenol	8270D	µg/L									1	U
Phosphorus	6010C	mg/L					0.2	U	0.2	U	0.2	U
Potassium	6010C	mg/L					1	U	1	U	1	U
Propylene Glycol	8015C	mg/L									10	U
p-Terphenyl	8015B	mg/L									0.0048	U
Pyrene	8270D	µg/L									0.6	U
Pyrene	8270D SIM	µg/L					0.057	U	0.051	U	0.057	U
Pyridine	8270D	µg/L									6	U
RDX	8330A	µg/L									0.6	U
Selenium	6020A	mg/L					0.004	U	0.004	U	0.004	U
Silver	6020A	mg/L					0.001	U	0.001	U	0.001	U
Silvex (2,4,5-TP)	8151A	µg/L									0.048	U
Sodium	6010C	mg/L					2	U	2	U	2	U
Strontium	6020A	mg/L					0.002	U	0.00046	J	0.00069	J
Styrene	8260B	µg/L	5	U	5	U			5	U		
Technical Toxaphene	8081B	µg/L					0.84	U			0.83	U
tert-Butyl ethyl ether	8260B	µg/L	5	U	1	U			5	U		
tert-Butylbenzene	8260B	µg/L	5	U	5	U			5	U		
Tertiary amyl methyl ether	8260B	µg/L	5	U	1	U			5	U		
Tertiary butyl alcohol	8260B	µg/L	50	U	50	U			50	U		
Tetrachloroethene	8260B	µg/L	5	U	1	U			5	U		
Tetryl	8330A	µg/L									0.6	U
Thallium	6020A	mg/L					0.001	U	0.001	U	0.001	U
Tin	6010C	mg/L					0.04	U	0.04	U	0.04	U
Titanium	6010C	mg/L					0.02	U	0.02	U	0.02	U
Toluene	8260B	µg/L	5	U	1	U			5	U		
trans-1,2-Dichloroethene	8260B	µg/L	5	U	1	U			5	U		
trans-1,3-Dichloropropene	8260B	µg/L	5	U	1	U			5	U		
Trichloroethene	8260B	µg/L	5	U	1	U			5	U		
Trichlorofluoromethane	8260B	µg/L	5	U	1	U			5	U		
Triethylene Glycol	8015C	mg/L									10	U
Vanadium	6010C	mg/L					0.01	U	0.01	U	0.01	U
Vinyl Acetate	8260B	µg/L	10	U	10	U			10	U		
Vinyl Chloride	8260B	µg/L	5	U	1	U			5	U		
Zinc	6010C	mg/L					0.04	U	0.04	U	0.04	U
Zirconium	6010C	mg/L					0.1	U	0.1	U	0.1	U

Notes:
ug/L - microgram per liter
mg/L - milligram per liter
ng/L - nanogram per liter
pg/L - picogram per liter
U - Compound not detected above the reporting limit

Table C-2
Go-Backs, Trenches and Soil Vapor Locations - Equipment Blanks

			Sample Name:		EB3-061114		EB4-060414		EB4-061114		EB5-060414	
			Location:		EQUIPMENT BLANK SV		EQUIPMENT BLANK SV		EQUIPMENT BLANK SV		EQUIPMENT BLANK SV	
			Sample Date:		06/11/2014		06/04/2014		06/11/2014		06/04/2014	
			Sample Type:		EB		EB		EB		EB	
			Lab:		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	µg/L	1	U	5	U	1	U	5	U
1,1,1-Trichloroethane	8260B	µg/L	1	U	5	U	1	U	5	U
1,1,2,2-Tetrachloroethane	8260B	µg/L	1	U	5	U	1	U	5	U
1,1,2-Trichloro-1,2,2-trifluoroethane	8260B	µg/L	10	U	5	U	10	U	5	U
1,1,2-Trichloroethane	8260B	µg/L	1	U	5	U	1	U	5	U
1,1'-Biphenyl	8270D	µg/L								
1,1-Dichloroethane	8260B	µg/L	1	U	5	U	1	U	5	U
1,1-Dichloroethene	8260B	µg/L	1	U	5	U	1	U	5	U
1,1-Dichloropropene	8260B	µg/L	5	U	5	U	5	U	5	U
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	1613B	pg/L								
1,2,3,4,6,7,8-HPCDF	1613B	pg/L								
1,2,3,4,7,8,9-HPCDF	1613B	pg/L								
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L								
1,2,3,4,7,8-HXCDF	1613B	pg/L								
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L								
1,2,3,6,7,8-HXCDF	1613B	pg/L								
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	1613B	pg/L								
1,2,3,7,8,9-HXCDF	1613B	pg/L								
1,2,3,7,8-Pentachlorodibenzofuran	1613B	pg/L								
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1613B	pg/L								
1,2,3-Trichlorobenzene	8260B	µg/L	5	U	5	U	5	U	5	U
1,2,3-Trichloropropane	8260B	µg/L	5	U	5	U	5	U	5	U
1,2,4-Trichlorobenzene	8260B	µg/L	5	U	5	U	5	U	5	U
1,2,4-Trichlorobenzene	8270D	µg/L								
1,2,4-Trimethylbenzene	8260B	µg/L	5	U	5	U	5	U	5	U
1,2-Dibromo-3-chloropropane	8260B	µg/L	5	U	5	U	5	U	5	U
1,2-Dibromoethane	8260B	µg/L	1	U	5	U	1	U	5	U
1,2-Dichlorobenzene	8260B	µg/L	5	U	5	U	5	U	5	U
1,2-Dichlorobenzene	8270D	µg/L								
1,2-Dichloroethane	8260B	µg/L	1	U	5	U	1	U	5	U
1,2-Dichloropropane	8260B	µg/L	1	U	5	U	1	U	5	U
1,2-Diphenylhydrazine	8270D	µg/L								
1,3,5-Trimethylbenzene	8260B	µg/L	5	U	5	U	5	U	5	U
1,3,5-Trinitrobenzene	8330A	µg/L								
1,3-Dichlorobenzene	8260B	µg/L	5	U	5	U	5	U	5	U
1,3-Dichlorobenzene	8270D	µg/L								
1,3-Dichloropropane	8260B	µg/L	1	U	5	U	1	U	5	U
1,4-Dichlorobenzene	8260B	µg/L	5	U	5	U	5	U	5	U
1,4-Dichlorobenzene	8270D	µg/L								
1,4-Dioxane	8260B SIM	µg/L								
1-Chlorohexane	8260B	µg/L	5	U	5	U	5	U	5	U
1-Methylnaphthalene	8270D	µg/L								
1-Methylnaphthalene	8270D SIM	µg/L								
2,2-Dichloropropane	8260B	µg/L	1	U	5	U	1	U	5	U
2,2-Dichlor-Propionic Acid	8151A	µg/L								
2,3,4,6,7,8-HXCDF	1613B	pg/L								
2,3,4,7,8-PECDF	1613B	pg/L								
2,3,7,8-TCDD	1613B	pg/L								
2,3,7,8-Tetrachlorodibenzofuran	1613B	pg/L								
2,4,5-T	8151A	µg/L								
2,4,5-Trichlorophenol	8270D	µg/L								
2,4,6-Trichlorophenol	8270D	µg/L								
2,4,6-Trinitrotoluene	8330A	µg/L								
2,4-D	8151A	µg/L								
2,4-DB	8151A	µg/L								
2,4-Diamino-6-nitrotoluene	8330A	µg/L								
2,4-Dichlorophenol	8270D	µg/L								
2,4-Dimethylphenol	8270D	µg/L								
2,4-Dinitrophenol	8270D	µg/L								
2,4-Dinitrotoluene	8330A	µg/L								
2,6-Diamino-4-nitrotoluene	8330A	µg/L								
2,6-Dichlorophenol	8270D	µg/L								
2,6-Dinitrotoluene	8330A	µg/L								
2-Amino-4,6-Dinitrotoluene	8330A	µg/L								
2-Butanone (MEK)	8260B	µg/L	3	J	10	U	10	U	10	U
2-Chloro-1,1,1-trifluoroethane	8260B	µg/L	5	U	5	U	5	U	5	U
2-Chloroethyl Vinyl Ether	8260B	µg/L	10	U	10	U	10	U	10	U
2-Chloronaphthalene	8270D	µg/L								
2-Chlorophenol	8270D	µg/L								
2-Chlorotoluene	8260B	µg/L	5	U	5	U	5	U	5	U
2-Hexanone	8260B	µg/L	10	U	10	U	10	U	10	U
2-Methylnaphthalene	8270D	µg/L								
2-Methylnaphthalene	8270D SIM	µg/L								
2-Methylphenol	8270D	µg/L								
2-Nitroaniline	8270D	µg/L								
2-Nitrophenol	8270D	µg/L								
2-Nitrotoluene	8330A	µg/L								
2-Phenylbutane	8260B	µg/L	5	U	5	U	5	U	5	U
3,3'-Dichlorobenzidine	8270D	µg/L								
3,5-Dimethylphenol	8270D	µg/L								
3-Nitroaniline	8270D	µg/L								
3-Nitrotoluene	8330A	µg/L								
4,4'-DDD	8081B	µg/L								
4,4'-DDE	8081B	µg/L								
4,4'-DDT	8081B	µg/L								
4,6-Dinitro-2-methylphenol	8270D	µg/L								
4-Amino-2,6-Dinitrotoluene	8330A	µg/L								
4-Bromophenyl-phenylether	8270D	µg/L								
4-Chloro-3-methylphenol	8270D	µg/L								
4-Chloroaniline	8270D	µg/L								
4-Chlorophenyl-phenylether	8270D	µg/L								
4-Chlorotoluene	8260B	µg/L	5	U	5	U	5	U	5	U
4-Methyl-2-pentanone (MIBK)	8260B	µg/L	10	U	10	U	10	U	10	U
4-Methylphenol	8270D	µg/L								
4-Nitroaniline	8270D	µg/L								
4-Nitrophenol	8270D	µg/L								
4-Nitrotoluene	8330A	µg/L								
Acenaphthene	8270D	µg/L								
Acenaphthene	8270D SIM	µg/L								
Acenaphthylene	8270D	µg/L								
Acenaphthylene	8270D SIM	µg/L								
Acetone	8260B	µg/L	20	U	20	U	20	U	20	U
Acrolein	8260B	µg/L	100	U	100	U	100	U	100	U
Acrylonitrile	8260B	µg/L	20	U	20	U	20	U	20	U
Aldrin	8081B	µg/L								
Alpha-Bhc	8081B	µg/L								
Aluminum	6010C	mg/L								
Aniline	8270D	µg/L								
Anthracene	8270D	µg/L								
Anthracene	8270D SIM	µg/L								
Antimony	6010C	mg/L								

Table C-2
Go-Backs, Trenches and Soil Vapor Locations - Equipment Blanks

			Sample Name:		EB3-061114		EB4-060414		EB4-061114		EB5-060414	
			Location:		EQUIPMENT BLANK SV		EQUIPMENT BLANK SV		EQUIPMENT BLANK SV		EQUIPMENT BLANK SV	
			Sample Date:		06/11/2014		06/04/2014		06/11/2014		06/04/2014	
			Sample Type:		EB		EB		EB		EB	
			Lab:		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Aroclor 1016	8082A	µg/L								
Aroclor 1221	8082A	µg/L								
Aroclor 1232	8082A	µg/L								
Aroclor 1242	8082A	µg/L								
Aroclor 1248	8082A	µg/L								
Aroclor 1254	8082A	µg/L								
Aroclor 1260	8082A	µg/L								
Aroclor 1262	8082A	µg/L								
Aroclor 1268	8082A	µg/L								
Aroclor 5432	8082A	µg/L								
Aroclor 5442	8082A	µg/L								
Aroclor 5460	8082A	µg/L								
Arsenic	6010C	mg/L								
Barium	6010C	mg/L								
Benzene	8260B	µg/L	1	U	5	U	1	U	5	U
Benzidine	8270D	µg/L								
Benzo(a)anthracene	8270D	µg/L								
Benzo(a)anthracene	8270D SIM	µg/L								
Benzo(a)pyrene	8270D	µg/L								
Benzo(a)pyrene	8270D SIM	µg/L								
Benzo(b)fluoranthene	8270D	µg/L								
Benzo(b)fluoranthene	8270D SIM	µg/L								
Benzo(e)pyrene	8270D SIM	µg/L								
Benzo(g,h,i)perylene	8270D	µg/L								
Benzo(g,h,i)perylene	8270D SIM	µg/L								
Benzo(k)fluoranthene	8270D	µg/L								
Benzo(k)fluoranthene	8270D SIM	µg/L								
Benzoic Acid	8270D	µg/L								
Benzyl Alcohol	8270D	µg/L								
Beryllium	6010C	mg/L								
Beta-Bhc	8081B	µg/L								
bis(2-chloroethoxy)methane	8270D	µg/L								
bis(2-chloroethyl) ether	8270D	µg/L								
bis(2-chloroisopropyl) ether	8270D	µg/L								
Bis(2-ethylhexyl)phthalate	8270D	µg/L								
Bis(2-ethylhexyl)phthalate	8270D SIM	µg/L								
Boron	6010C	mg/L								
Bromobenzene	8260B	µg/L	5	U	5	U	5	U	5	U
Bromochloromethane	8260B	µg/L	5	U	5	U	5	U	5	U
Bromodichloromethane	8260B	µg/L	1	U	5	U	1	U	5	U
Bromoform	8260B	µg/L	4	U	5	U	4	U	5	U
Bromomethane	8260B	µg/L	1	U	5	U	1	U	5	U
Butylbenzylphthalate	8270D	µg/L								
Butylbenzylphthalate	8270D SIM	µg/L								
Cadmium	6010C	mg/L								
Calcium	6010C	mg/L								
Carbazole	8270D	µg/L								
Carbon Disulfide	8260B	µg/L	5	U	5	U	5	U	5	U
Carbon Tetrachloride	8260B	µg/L	1	U	5	U	1	U	5	U
Chlordane	8081B	µg/L								
Chlorobenzene	8260B	µg/L	1	U	5	U	1	U	5	U
Chloroethane	8260B	µg/L	1	U	5	U	1	U	5	U
Chloroform	8260B	µg/L	1	U	5	U	1	U	5	U
Chloromethane	8260B	µg/L	1	U	5	U	1	U	5	U
Chlorotrifluoroethylene	8260B	µg/L	5	U	5	U	5	U	5	U
Chromium	6010C	mg/L								
Chromium (Hexavalent Compounds)	7199	µg/L								
Chrysene	8270D	µg/L								
Chrysene	8270D SIM	µg/L								
cis-1,2-Dichloroethene	8260B	µg/L	1	U	5	U	1	U	5	U
cis-1,3-Dichloropropene	8260B	µg/L	1	U	5	U	1	U	5	U
Cobalt	6010C	mg/L								
Copper	6010C	mg/L								
Cymene	8260B	µg/L	5	U	5	U	5	U	5	U
Delta-Bhc	8081B	µg/L								
Di isopropyl Ether	8260B	µg/L	1	U	5	U	1	U	5	U
Dibenzo(a,h)anthracene	8270D	µg/L								
Dibenzo(a,h)anthracene	8270D SIM	µg/L								
Dibenzofuran	8270D	µg/L								
Dibromochloromethane	8260B	µg/L	1	U	5	U	1	U	5	U
Dibromomethane	8260B	µg/L	1	U	5	U	1	U	5	U
Dicamba	8151A	µg/L								
Dichlorodifluoromethane	8260B	µg/L	1	U	5	U	1	U	5	U
Dichlorprop	8151A	µg/L								
Dieldrin	8081B	µg/L								
Diethylene Glycol	8015C	mg/L								
Diethylphthalate	8270D	µg/L								
Diethylphthalate	8270D SIM	µg/L								
Dimethylphthalate	8270D	µg/L								
Dimethylphthalate	8270D SIM	µg/L								
Di-n-butylphthalate	8270D	µg/L								
Di-n-butylphthalate	8270D SIM	µg/L								
Dinitrobutyl Phenol	8151A	µg/L								
Di-n-octylphthalate	8270D	µg/L								
Di-n-octylphthalate	8270D SIM	µg/L								
Diphenylamine	8270D	µg/L								
EFH (C12-C14)	8015M	mg/L								
EFH (C12-C14) w/ Silica Gel	8015M	mg/L								
EFH (C15-C20)	8015M	mg/L								
EFH (C15-C20) w/ Silica Gel	8015M	mg/L								
EFH (C21-C30)	8015M	mg/L								
EFH (C21-C30) w/ Silica Gel	8015M	mg/L								
EFH (C30-C40)	8015M	mg/L								
EFH (C30-C40) w/ Silica Gel	8015M	mg/L								
EFH (C8-C11)	8015M	mg/L								
EFH (C8-C11) w/ Silica Gel	8015M	mg/L								
Endosulfan I	8081B	µg/L								
Endosulfan II	8081B	µg/L								
Endosulfan Sulfate	8081B	µg/L								
Endrin	8081B	µg/L								
Endrin Aldehyde	8081B	µg/L								
Endrin Ketone	8081B	µg/L								
Ethylbenzene	8260B	µg/L	1	U	5	U	1	U	5	U
Ethylene Glycol	8015C	mg/L								
Fluoranthene	8270D	µg/L								
Fluoranthene	8270D SIM	µg/L								
Fluorene	8270D	µg/L								
Fluorene	8270D SIM	µg/L								
Formaldehyde	8315A	µg/L								
Gamma-Bhc (Lindane)	8081B	µg/L								
Gasoline Range Organics (C5-C12)	8015M	µg/L								

Table C-2
Go-Backs, Trenches and Soil Vapor Locations - Equipment Blanks

	Sample Name:		EB3-061114		EB4-060414		EB4-061114		EB5-060414	
	Location:		EQUIPMENT BLANK SV		EQUIPMENT BLANK SV		EQUIPMENT BLANK SV		EQUIPMENT BLANK SV	
	Sample Date:		06/11/2014		06/04/2014		06/11/2014		06/04/2014	
	Sample Type:		EB		EB		EB		EB	
	Lab:		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Heptachlor	8081B	µg/L								
Heptachlor Epoxide	8081B	µg/L								
Hexachloro-1,3-butadiene	8260B	µg/L	5	U	5	U	5	U	5	U
Hexachlorobenzene	8270D	µg/L								
Hexachlorobutadiene	8270D	µg/L								
Hexachlorocyclopentadiene	8270D	µg/L								
Hexachloroethane	8270D	µg/L								
HMX	8330A	µg/L								
Indeno(1,2,3-cd)pyrene	8270D	µg/L								
Indeno(1,2,3-cd)pyrene	8270D SIM	µg/L								
Iron	6010C	mg/L								
Isophorone	8270D	µg/L								
Isopropylbenzene	8260B	µg/L	5	U	5	U	5	U	5	U
Lead	6010C	mg/L								
Lithium	6010C	mg/L								
m,p-Xylene	8260B	µg/L	1	U	5	U	1	U	5	U
Magnesium	6010C	mg/L								
Manganese	6010C	mg/L								
MCPA	8151A	µg/L								
MCPP	8151A	µg/L								
M-Dinitrobenzene	8330A	µg/L								
Mercury	7470A	mg/L								
Methoxychlor	8081B	µg/L								
Methyl Iodide	8260B	µg/L	1	U	5	U	1	U	5	U
Methyl Tert-Butyl Ether	8260B	µg/L	1	U	5	U	1	U	5	U
Methylene Chloride	8260B	µg/L	4		5	U	4		5	U
Mirex	8081B	µg/L								
Molybdenum	6010C	mg/L								
Morpholine	8270D SIM	µg/L								
m-Terphenyl	8015B	mg/L								
Naphthalene	8270D	µg/L								
Naphthalene	8270D SIM	µg/L								
n-Butylbenzene	8260B	µg/L	5	U	5	U	5	U	5	U
Nickel	6010C	mg/L								
Nitrobenzene	8270D	µg/L								
Nitrobenzene	8330A	µg/L								
Nitroglycerin	8330A	µg/kg								
N-Nitrosodimethylamine	8270D	µg/L								
N-Nitrosodimethylamine	8270D SIM	µg/L								
N-Nitroso-di-n-propylamine	8270D	µg/L								
N-Nitrosodiphenylamine	8270D	µg/L								
n-Propylbenzene	8260B	µg/L	5	U	5	U	5	U	5	U
OCDD	1613B	pg/L								
OCDF	1613B	pg/L								
o-Terphenyl	8015B	mg/L								
o-Xylene	8260B	µg/L	1	U	5	U	1	U	5	U
Pentachlorophenol	8270D	µg/L								
Perchlorate	6850	µg/L								
PETN	8330A	µg/kg								
pH	9040C	pH								
Phenanthrene	8270D	µg/L								
Phenanthrene	8270D SIM	µg/L								
Phenol	8270D	µg/L								
Phosphorus	6010C	mg/L								
Potassium	6010C	mg/L								
Propylene Glycol	8015C	mg/L								
p-Terphenyl	8015B	mg/L								
Pyrene	8270D	µg/L								
Pyrene	8270D SIM	µg/L								
Pyridine	8270D	µg/L								
RDX	8330A	µg/L								
Selenium	6020A	mg/L								
Silver	6020A	mg/L								
Silvex (2,4,5-TP)	8151A	µg/L								
Sodium	6010C	mg/L								
Strontium	6020A	mg/L								
Styrene	8260B	µg/L	5	U	5	U	5	U	5	U
Technical Toxaphene	8081B	µg/L								
tert-Butyl ethyl ether	8260B	µg/L	1	U	5	U	1	U	5	U
tert-Butylbenzene	8260B	µg/L	5	U	5	U	5	U	5	U
Tertiary amyl methyl ether	8260B	µg/L	1	U	5	U	1	U	5	U
Tertiary butyl alcohol	8260B	µg/L	50	U	50	U	50	U	50	U
Tetrachloroethene	8260B	µg/L	1	U	5	U	1	U	5	U
Tetryl	8330A	µg/L								
Thallium	6020A	mg/L								
Tin	6010C	mg/L								
Titanium	6010C	mg/L								
Toluene	8260B	µg/L	1	U	5	U	1	U	5	U
trans-1,2-Dichloroethene	8260B	µg/L	1	U	5	U	1	U	5	U
trans-1,3-Dichloropropene	8260B	µg/L	1	U	5	U	1	U	5	U
Trichloroethene	8260B	µg/L	1	U	5	U	1	U	5	U
Trichlorofluoromethane	8260B	µg/L	1	U	5	U	1	U	5	U
Triethylene Glycol	8015C	mg/L								
Vanadium	6010C	mg/L								
Vinyl Acetate	8260B	µg/L	10	U	10	U	10	U	10	U
Vinyl Chloride	8260B	µg/L	1	U	5	U	1	U	5	U
Zinc	6010C	mg/L								
Zirconium	6010C	mg/L								

Notes:
ug/L - microgram per liter
mg/L - milligram per liter
ng/L - nanogram per liter
pg/L - picogram per liter
U - Compound not detected above the reporting limit

Table C-3
Go-Backs, Trenches and Soil Vapor Locations - Field Blanks

			Sample Name:		FB-041613		FB-051314		FB-052114	
			Location:		FIELD BLANK		FIELD BLANK		FIELD BLANK	
			Sample Date:		04/16/2013		05/13/2014		05/21/2014	
			Sample Type:		FB		FB		FB	
			Lab:		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	µg/L	5	U	1	U	5	U
1,1,1-Trichloroethane	8260B	µg/L	5	U	1	U	5	U
1,1,2,2-Tetrachloroethane	8260B	µg/L	5	U	1	U	5	U
1,1,2-Trichloro-1,2,2-trifluoroethane	8260B	µg/L	5	U	10	U	5	U
1,1,2-Trichloroethane	8260B	µg/L	5	U	1	U	5	U
1,1'-Biphenyl	8270D	µg/L	1	U			1	U
1,1-Dichloroethane	8260B	µg/L	5	U	1	U	5	U
1,1-Dichloroethene	8260B	µg/L	5	U	1	U	5	U
1,1-Dichloropropene	8260B	µg/L	5	U	5	U	5	U
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	1613B	pg/L	9.71	U	9.9	U	9.9	U
1,2,3,4,6,7,8-HPCDF	1613B	pg/L	9.71	U	9.9	U	9.9	U
1,2,3,4,7,8,9-HPCDF	1613B	pg/L	9.71	U	9.9	U	9.9	U
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	9.71	U	9.9	U	9.9	U
1,2,3,4,7,8-HXCDF	1613B	pg/L	0.257	J	9.9	U	9.9	U
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	9.71	U	9.9	U	9.9	U
1,2,3,6,7,8-HXCDF	1613B	pg/L	9.71	U	9.9	U	9.9	U
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	9.71	U	9.9	U	9.9	U
1,2,3,7,8,9-HXCDF	1613B	pg/L	9.71	U	9.9	U	0.182	J
1,2,3,7,8-Pentachlorodibenzofuran	1613B	pg/L	9.71	U	9.9	U	9.9	U
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1613B	pg/L	9.71	U	9.9	U	9.9	U
1,2,3-Trichlorobenzene	8260B	µg/L	5	U	5	U	5	U
1,2,3-Trichloropropane	8260B	µg/L	5	U	5	U	5	U
1,2,4-Trichlorobenzene	8260B	µg/L	5	U	5	U	5	U
1,2,4-Trichlorobenzene	8270D	µg/L	1	U			1	U
1,2,4-Trimethylbenzene	8260B	µg/L	5	U	5	U	5	U
1,2-Dibromo-3-chloropropane	8260B	µg/L	5	U	5	U	5	U
1,2-Dibromoethane	8260B	µg/L	5	U	1	U	5	U
1,2-Dichlorobenzene	8260B	µg/L	5	U	5	U	5	U
1,2-Dichlorobenzene	8270D	µg/L	1	U			1	U
1,2-Dichloroethane	8260B	µg/L	5	U	1	U	5	U
1,2-Dichloropropane	8260B	µg/L	5	U	1	U	5	U
1,2-Diphenylhydrazine	8270D	µg/L	1	U			1	U
1,3,5-Trimethylbenzene	8260B	µg/L	5	U	5	U	5	U
1,3,5-Trinitrobenzene	8330A	µg/L	0.6	U			0.6	U
1,3-Dichlorobenzene	8260B	µg/L	5	U	5	U	5	U
1,3-Dichlorobenzene	8270D	µg/L	1	U			1	U
1,3-Dichloropropane	8260B	µg/L	5	U	1	U	5	U
1,4-Dichlorobenzene	8260B	µg/L	5	U	5	U	5	U
1,4-Dichlorobenzene	8270D	µg/L	1	U			1	U
1,4-Dioxane	8260B SIM	µg/L	2	U			2	U
1-Chlorohexane	8260B	µg/L	5	U	5	U	5	U
1-Methylnaphthalene	8270D	µg/L	0.5	U			0.5	U
1-Methylnaphthalene	8270D SIM	µg/L	0.052	U	0.048	UJ	0.022	J
2,2-Dichloropropane	8260B	µg/L	5	U	1	U	5	U
2,2-Dichlor-Propionic Acid	8151A	µg/L	1.2	UJ			1.3	U
2,3,4,6,7,8-HXCDF	1613B	pg/L	9.71	U	9.9	U	9.9	U
2,3,4,7,8-PECDF	1613B	pg/L	9.71	U	9.9	U	9.9	U
2,3,7,8-TCDD	1613B	pg/L	1.94	U	1.98	U	1.98	U
2,3,7,8-Tetrachlorodibenzofuran	1613B	pg/L	1.94	U	1.98	U	1.98	U
2,4,5-T	8151A	µg/L	0.049	UJ			0.051	U
2,4,5-Trichlorophenol	8270D	µg/L	1	U			1	U
2,4,6-Trichlorophenol	8270D	µg/L	1	U			1	U
2,4,6-Trinitrotoluene	8330A	µg/L	0.6	U			0.6	U
2,4-D	8151A	µg/L	0.49	U			0.51	U
2,4-DB	8151A	µg/L	0.98	U			1	U
2,4-Diamino-6-nitrotoluene	8330A	µg/L	0.6	U			0.6	U
2,4-Dichlorophenol	8270D	µg/L	1	U			1	U
2,4-Dimethylphenol	8270D	µg/L	1	U			1	U
2,4-Dinitrophenol	8270D	µg/L	31	U			32	U
2,4-Dinitrotoluene	8330A	µg/L	0.6	U			0.6	U
2,6-Diamino-4-nitrotoluene	8330A	µg/L	0.6	U			0.6	U
2,6-Dichlorophenol	8270D	µg/L	1	U			1	U
2,6-Dinitrotoluene	8330A	µg/L	0.6	U			0.6	U
2-Amino-4,6-Dinitrotoluene	8330A	µg/L	0.6	U			0.6	U
2-Butanone (MEK)	8260B	µg/L	10	U	10	U	10	U
2-Chloro-1,1,1-trifluoroethane	8260B	µg/L	5	U	5	U	5	U
2-Chloroethyl Vinyl Ether	8260B	µg/L	10	U	10	U	10	U
2-Chloronaphthalene	8270D	µg/L	1	U			1	U
2-Chlorophenol	8270D	µg/L	1	U			1	U
2-Chlorotoluene	8260B	µg/L	5	U	5	U	5	U
2-Hexanone	8260B	µg/L	10	U	10	U	10	U
2-Methylnaphthalene	8270D	µg/L	0.5	U			0.5	U
2-Methylnaphthalene	8270D SIM	µg/L	0.012	J	0.048	UJ	0.032	J
2-Methylphenol	8270D	µg/L	1	U			1	U
2-Nitroaniline	8270D	µg/L	1	U			1	U
2-Nitrophenol	8270D	µg/L	1	U			1	U
2-Nitrotoluene	8330A	µg/L	0.6	U			0.6	U
2-Phenylbutane	8260B	µg/L	5	U	5	U	5	U
2-Propanol	8015C	µg/L	1000	UJ				
3,3'-Dichlorobenzidine	8270D	µg/L	5	U			5	U
3,5-Dimethylphenol	8270D	µg/L	10	U			11	U
3-Nitroaniline	8270D	µg/L	1	U			1	U
3-Nitrotoluene	8330A	µg/L	1.2	U			1.2	U
4,4'-DDD	8081B	µg/L	0.017	U			0.018	U
4,4'-DDE	8081B	µg/L	0.017	U			0.018	U
4,4'-DDT	8081B	µg/L	0.017	U			0.018	U
4,6-Dinitro-2-methylphenol	8270D	µg/L	16	U			16	U
4-Amino-2,6-Dinitrotoluene	8330A	µg/L	0.6	U			0.6	U
4-Bromophenyl-phenylether	8270D	µg/L	1	U			1	U
4-Chloro-3-methylphenol	8270D	µg/L	1	U			1	U
4-Chloroaniline	8270D	µg/L	1	U			1	U
4-Chlorophenyl-phenylether	8270D	µg/L	1	U			1	U
4-Chlorotoluene	8260B	µg/L	5	U	5	U	5	U
4-Methyl-2-pentanone (MIBK)	8260B	µg/L	10	U	10	U	10	U
4-Methylphenol	8270D	µg/L	1	U			1	U
4-Nitroaniline	8270D	µg/L	1	U			1	U
4-Nitrophenol	8270D	µg/L	31	U			32	U
4-Nitrotoluene	8330A	µg/L	1.2	U			1.2	U
Acenaphthene	8270D	µg/L	0.5	U			0.5	U
Acenaphthene	8270D SIM	µg/L	0.052	U	0.048	UJ	0.053	U
Acenaphthylene	8270D	µg/L	0.5	U			0.5	U
Acenaphthylene	8270D SIM	µg/L	0.052	U	0.048	UJ	0.053	U
Acetone	8260B	µg/L	20	U	20	U	20	U
Acrolein	8260B	µg/L	100	U	100	U	100	U
Acrylonitrile	8260B	µg/L	20	U	20	U	20	U
Aldrin	8081B	µg/L	0.0086	U			0.0089	U
Alpha-Bhc	8081B	µg/L	0.0086	U			0.0089	U
Aluminum	6010C	mg/L	0.4	U	0.4	U	0.4	U
Aniline	8270D	µg/L	1	U			1	U
Anthracene	8270D	µg/L	0.5	U			0.5	U
Anthracene	8270D SIM	µg/L	0.052	U	0.048	UJ	0.053	U

Table C-3
Go-Backs, Trenches and Soil Vapor Locations - Field Blanks

			Sample Name:		FB-041613		FB-051314		FB-052114	
			Location:		FIELD BLANK		FIELD BLANK		FIELD BLANK	
			Sample Date:		04/16/2013		05/13/2014		05/21/2014	
			Sample Type:		FB		FB		FB	
			Lab:		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Antimony	6010C	mg/L	0.04	U	0.04	U	0.04	U
Aroclor 1016	8082A	µg/L	0.43	U	0.42	U	0.42	U
Aroclor 1221	8082A	µg/L	0.43	U	0.42	U	0.42	U
Aroclor 1232	8082A	µg/L	0.43	U	0.42	U	0.42	U
Aroclor 1242	8082A	µg/L	0.43	U	0.42	U	0.42	U
Aroclor 1248	8082A	µg/L	0.43	U	0.42	U	0.42	U
Aroclor 1254	8082A	µg/L	0.43	U	0.42	U	0.42	U
Aroclor 1260	8082A	µg/L	0.43	U	0.42	U	0.42	U
Aroclor 1262	8082A	µg/L	0.43	U	0.42	U	0.42	U
Aroclor 1268	8082A	µg/L	0.43	U	0.42	U	0.42	U
Aroclor 5432	8082A	µg/L	0.43	U	0.42	U	0.42	U
Aroclor 5442	8082A	µg/L	0.43	U	0.42	U	0.42	U
Aroclor 5460	8082A	µg/L	0.43	U	0.42	U	0.42	U
Arsenic	6010C	mg/L	0.04	U	0.04	U	0.04	U
Barium	6010C	mg/L	0.01	U	0.01	U	0.01	U
Benzene	8260B	µg/L	5	U	1	U	5	U
Benzidine	8270D	µg/L	62	U			63	U
Benzo(a)anthracene	8270D	µg/L	0.5	U			0.5	U
Benzo(a)anthracene	8270D SIM	µg/L	0.052	U	0.048	UJ	0.053	U
Benzo(a)pyrene	8270D	µg/L	0.5	U			0.5	U
Benzo(a)pyrene	8270D SIM	µg/L	0.052	U	0.048	UJ	0.053	U
Benzo(b)fluoranthene	8270D	µg/L	0.5	U			0.5	U
Benzo(b)fluoranthene	8270D SIM	µg/L	0.052	U	0.048	UJ	0.053	U
Benzo(e)pyrene	8270D SIM	µg/L	0.052	U	0.048	UJ	0.053	U
Benzo(g,h,i)perylene	8270D	µg/L	0.5	U			0.5	U
Benzo(g,h,i)perylene	8270D SIM	µg/L	0.052	U	0.048	UJ	0.053	U
Benzo(k)fluoranthene	8270D	µg/L	0.5	U			0.5	U
Benzo(k)fluoranthene	8270D SIM	µg/L	0.052	U	0.048	UJ	0.053	U
Benzoic Acid	8270D	µg/L	16	UJ			16	U
Benzyl Alcohol	8270D	µg/L	16	U			16	U
Beryllium	6010C	mg/L	0.01	U	0.01	U	0.01	U
Beta-Bhc	8081B	µg/L	0.0086	U			0.0089	U
bis(2-chloroethoxy)methane	8270D	µg/L	1	U			1	U
bis(2-chloroethyl) ether	8270D	µg/L	1	U			1	U
bis(2-chloroisopropyl) ether	8270D	µg/L	1	U			1	U
Bis(2-ethylhexyl)phthalate	8270D	µg/L	5	U			5	U
Bis(2-ethylhexyl)phthalate	8270D SIM	µg/L	1	U	0.97	UJ	1.1	UJ
Boron	6010C	mg/L	0.1	U	0.1	U	0.1	U
Bromide	300.0	mg/L	0.5	U			0.5	U
Bromobenzene	8260B	µg/L	5	U	5	U	5	U
Bromochloromethane	8260B	µg/L	5	U	5	U	5	U
Bromodichloromethane	8260B	µg/L	5	U	1	U	5	U
Bromoform	8260B	µg/L	5	U	4	U	5	U
Bromomethane	8260B	µg/L	5	U	1	U	5	U
Butylbenzylphthalate	8270D	µg/L	5	U			5	U
Butylbenzylphthalate	8270D SIM	µg/L	1	U	0.97	UJ	1.1	U
Cadmium	6010C	mg/L	0.01	U	0.01	U	0.01	U
Calcium	6010C	mg/L	0.4	U	0.4	U	0.4	U
Carbazole	8270D	µg/L	1	U			1	U
Carbon Disulfide	8260B	µg/L	5	U	5	U	5	U
Carbon Tetrachloride	8260B	µg/L	5	U	1	U	5	U
Chlordane	8081B	µg/L	0.43	U			0.44	U
Chloride	300.0	mg/L	0.4	U			0.4	U
Chlorobenzene	8260B	µg/L	5	U	1	U	5	U
Chloroethane	8260B	µg/L	5	U	1	U	5	U
Chloroform	8260B	µg/L	3	J	1	U	0.7	J
Chloromethane	8260B	µg/L	5	U	1	U	5	U
Chlorotrifluoroethylene	8260B	µg/L	5	U	5	UJ	5	UJ
Chromium	6010C	mg/L	0.03	U	0.03	U	0.03	U
Chromium (Hexavalent Compounds)	7199	µg/L	10	U			10	U
Chrysene	8270D	µg/L	0.5	U			0.5	U
Chrysene	8270D SIM	µg/L	0.052	U	0.048	UJ	0.053	U
cis-1,2-Dichloroethene	8260B	µg/L	5	U	1	U	5	U
cis-1,3-Dichloropropene	8260B	µg/L	5	U	1	U	5	U
Cobalt	6010C	mg/L	0.01	U	0.01	U	0.01	U
Copper	6010C	mg/L	0.02	U	0.02	U	0.02	U
Cyanide	9012B	mg/L	0.01	U				
Cymene	8260B	µg/L	5	U	5	U	5	U
Delta-Bhc	8081B	µg/L	0.0086	U			0.0089	U
Di isopropyl Ether	8260B	µg/L	5	U	1	U	5	U
Dibenzo(a,h)anthracene	8270D	µg/L	0.5	U			0.5	U
Dibenzo(a,h)anthracene	8270D SIM	µg/L	0.052	U	0.048	UJ	0.053	U
Dibenzofuran	8270D	µg/L	1	U			1	U
Dibromochloromethane	8260B	µg/L	5	U	1	U	5	U
Dibromomethane	8260B	µg/L	5	U	1	U	5	U
Dicamba	8151A	µg/L	0.29	UJ			0.31	U
Dichlorodifluoromethane	8260B	µg/L	5	U	1	U	5	U
Dichlorprop	8151A	µg/L	0.49	UJ			0.51	U
Dieldrin	8081B	µg/L	0.017	U			0.018	U
Diethylene Glycol	8015C	mg/L	10	U			10	U
Diethylphthalate	8270D	µg/L	5	U			5	U
Diethylphthalate	8270D SIM	µg/L	1	U	0.47	J	1.1	U
Dimethylphthalate	8270D	µg/L	5	U			5	U
Dimethylphthalate	8270D SIM	µg/L	1	U	0.97	UJ	1.1	U
Di-n-butylphthalate	8270D	µg/L	5	U			5	U
Di-n-butylphthalate	8270D SIM	µg/L	0.11	J	0.22	J	0.089	J
Dinitrobutyl Phenol	8151A	µg/L	0.49	UJ			0.51	U
Di-n-octylphthalate	8270D	µg/L	5	U			5	U
Di-n-octylphthalate	8270D SIM	µg/L	1	UJ	0.97	UJ	1.1	U
Diphenylamine	8270D	µg/L	5	U			5	U
EFH (C12-C14)	8015M	mg/L	0.59	U	0.098	U	0.1	U
EFH (C12-C14) w/ Silica Gel	8015M	mg/L			0.098	UJ	0.1	U
EFH (C15-C20)	8015M	mg/L	0.59	U	0.098	U	0.1	U
EFH (C15-C20) w/ Silica Gel	8015M	mg/L			0.098	U	0.1	U
EFH (C21-C30)	8015M	mg/L	0.59	U	0.098	U	0.1	U
EFH (C21-C30) w/ Silica Gel	8015M	mg/L			0.098	UJ	0.1	U
EFH (C30-C40)	8015M	mg/L	0.59	UJ	0.49	U	0.5	U
EFH (C30-C40) w/ Silica Gel	8015M	mg/L			0.49	U	0.5	U
EFH (C8-C11)	8015M	mg/L	0.59	U	0.098	U	0.1	U
EFH (C8-C11) w/ Silica Gel	8015M	mg/L			0.098	UJ	0.1	U
Endosulfan I	8081B	µg/L	0.0086	U			0.0089	U
Endosulfan II	8081B	µg/L	0.017	U			0.018	U
Endosulfan Sulfate	8081B	µg/L	0.017	U			0.018	U
Endrin	8081B	µg/L	0.017	U			0.018	U
Endrin Aldehyde	8081B	µg/L	0.086	U			0.088	U
Endrin Ketone	8081B	µg/L	0.017	U			0.018	U
Ethanol	8015C	µg/L	1000	UJ				
Ethylbenzene	8260B	µg/L	5	U	1	U	5	U
Ethylene Glycol	8015C	mg/L	10	U			10	U
Fluoranthene	8270D	µg/L	0.5	U			0.5	U
Fluoranthene	8270D SIM	µg/L	0.052	U	0.048	UJ	0.053	U

Table C-3
Go-Backs, Trenches and Soil Vapor Locations - Field Blanks

	Sample Name:		FB-041613		FB-051314		FB-052114	
	Location:		FIELD BLANK		FIELD BLANK		FIELD BLANK	
	Sample Date:		04/16/2013		05/13/2014		05/21/2014	
	Sample Type:		FB		FB		FB	
	Lab:		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Fluorene	8270D	µg/L	0.5	U			0.5	U
Fluorene	8270D SIM	µg/L	0.052	U	0.048	UJ	0.053	U
Fluoride	300.0	mg/L	0.1	U			0.1	U
Formaldehyde	8315A	µg/L	50	U			50	U
Gamma-Bhc (Lindane)	8081B	µg/L	0.0086	U			0.0089	U
Gasoline Range Organics (C5-C12)	8015M	µg/L	50	U	50	U	50	U
Heptachlor	8081B	µg/L	0.0086	U			0.0089	U
Heptachlor Epoxide	8081B	µg/L	0.0086	U			0.0089	U
Hexachloro-1,3-butadiene	8260B	µg/L	5	U	5	U	5	U
Hexachlorobenzene	8270D	µg/L	0.5	U			0.5	U
Hexachlorobutadiene	8270D	µg/L	1	U			1	U
Hexachlorocyclopentadiene	8270D	µg/L	16	U			16	U
Hexachloroethane	8270D	µg/L	5	U			5	U
HMX	8330A	µg/L	2	U			2	U
Indeno(1,2,3-cd)pyrene	8270D	µg/L	0.5	U			0.5	U
Indeno(1,2,3-cd)pyrene	8270D SIM	µg/L	0.052	U	0.048	UJ	0.053	U
Iron	6010C	mg/L	0.4	U	0.4	U	0.4	U
Isophorone	8270D	µg/L	1	U			1	U
Isopropylbenzene	8260B	µg/L	5	U	5	U	5	U
Lead	6010C	mg/L	0.03	U	0.03	U	0.03	U
Lithium	6010C	mg/L	0.04	U	0.04	U	0.04	U
m,p-Xylene	8260B	µg/L	5	U	1	U	5	U
Magnesium	6010C	mg/L	0.2	U	0.2	U	0.2	U
Manganese	6010C	mg/L	0.01	U	0.01	U	0.01	U
MCPA	8151A	µg/L	200	U			200	U
MCPP	8151A	µg/L	200	UJ			200	U
M-Dinitrobenzene	8330A	µg/L	0.6	U			0.6	U
Mercury	7470A	mg/L	0.0002	U	0.0002	U	0.0002	U
Methanol	8015C	µg/L	1000	UJ				
Methoxychlor	8081B	µg/L	0.086	U			0.088	U
Methyl Iodide	8260B	µg/L	5	U	1	U	5	U
Methyl Tert-Butyl Ether	8260B	µg/L	5	U	1	U	5	U
Methylene Chloride	8260B	µg/L	18		3	U	7	
Mirex	8081B	µg/L	0.22	U			0.05	U
Molybdenum	6010C	mg/L	0.02	U	0.02	U	0.02	U
Morpholine	8270D SIM	µg/L					21	U
m-Terphenyl	8015B	mg/L	0.0049	U			0.0051	U
Naphthalene	8270D	µg/L	0.5	U			0.2	J
Naphthalene	8270D SIM	µg/L	0.052	U	0.048	UJ	0.11	
n-Butylbenzene	8260B	µg/L	5	U	5	U	5	U
Nickel	6010C	mg/L	0.02	U	0.02	U	0.02	U
Nitrate	300.0	mg/L	0.1	U			0.1	U
Nitrite-NO2	300.0	mg/L	0.1	U			0.1	U
Nitrobenzene	8270D	µg/L	1	U			1	U
Nitrobenzene	8330A	µg/L	0.6	U			0.6	U
Nitroglycerin	8330A	µg/kg	100000000	U			100000000	U
N-Nitrosodimethylamine	8270D	µg/L	5	U			5	U
N-Nitrosodimethylamine	8270D SIM	µg/L	0.052	U	0.048	UJ	0.053	U
N-Nitroso-di-n-propylamine	8270D	µg/L	1	U			1	U
N-Nitrosodiphenylamine	8270D	µg/L	1	U			1	U
n-Propylbenzene	8260B	µg/L	5	U	5	U	5	U
OCDD	1613B	pg/L	19.4	U	19.8	U	19.8	U
OCDF	1613B	pg/L	19.4	U	19.8	U	19.8	U
Orthophosphate	300.0	mg/L	0.5	U				
o-Terphenyl	8015B	mg/L	0.0049	U			0.0051	U
o-Xylene	8260B	µg/L	5	U	1	U	5	U
Pentachlorophenol	8270D	µg/L	5	U			5	U
Perchlorate	6850	µg/L	1	U	1	U	1	U
PETN	8330A	µg/kg	100000000	U			100000000	U
pH	9040C	pH	5.7		6.5		6.4	
Phenanthrene	8270D	µg/L	0.5	U			0.5	U
Phenanthrene	8270D SIM	µg/L	0.052	U	0.048	UJ	0.053	U
Phenol	8270D	µg/L	1	U			1	U
Phosphorus	6010C	mg/L	0.2	U	0.2	U	0.2	U
Potassium	6010C	mg/L	1	U	1	U	1	U
Propylene Glycol	8015C	mg/L	10	U			10	U
p-Terphenyl	8015B	mg/L	0.0049	U			0.0051	U
Pyrene	8270D	µg/L	0.5	U			0.5	U
Pyrene	8270D SIM	µg/L	0.052	U	0.048	UJ	0.053	U
Pyridine	8270D	µg/L	5	U			5	U
RDX	8330A	µg/L	0.6	U			0.6	U
Selenium	6020A	mg/L	0.004	U	0.004	U	0.004	U
Silver	6020A	mg/L	0.001	U	0.001	U	0.001	U
Silvex (2,4,5-TP)	8151A	µg/L	0.049	U			0.051	U
Sodium	6010C	mg/L	2	U	2	U	2	U
Strontium	6020A	mg/L	0.002	U	0.002	U	0.002	U
Styrene	8260B	µg/L	5	U	5	U	5	U
Sulfate	300.0	mg/L	1	U			1	U
Technical Toxaphene	8081B	µg/L	2.6	U			0.88	U
tert-Butyl ethyl ether	8260B	µg/L	5	U	1	U	5	U
tert-Butylbenzene	8260B	µg/L	5	U	5	U	5	U
Tertiary amyl methyl ether	8260B	µg/L	5	U	1	U	5	U
Tertiary butyl alcohol	8260B	µg/L	50	U	50	U	50	U
Tetrachloroethene	8260B	µg/L	5	U	1	U	5	U
Tetryl	8330A	µg/L	0.6	U			0.6	U
Thallium	6020A	mg/L	0.001	U	0.001	U	0.001	U
Tin	6010C	mg/L	0.0029	J	0.04	U	0.04	U
Titanium	6010C	mg/L	0.02	U	0.02	U	0.02	U
Toluene	8260B	µg/L	5	U	1	U	5	U
Total Organic Carbon	SM5310C	mg/L					1	U
trans-1,2-Dichloroethene	8260B	µg/L	5	U	1	U	5	U
trans-1,3-Dichloropropene	8260B	µg/L	5	U	1	U	5	U
Trichloroethene	8260B	µg/L	5	U	1	U	5	U
Trichlorofluoromethane	8260B	µg/L	5	U	1	U	5	U
Triethylene Glycol	8015C	mg/L	10	U			10	U
Vanadium	6010C	mg/L	0.01	U	0.01	U	0.01	U
Vinyl Acetate	8260B	µg/L	10	U	10	U	10	U
Vinyl Chloride	8260B	µg/L	5	U	1	U	5	U
Zinc	6010C	mg/L	0.04	U	0.04	U	0.04	U
Zirconium	6010C	mg/L	0.1	U	0.1	U	0.1	U

Notes:
ug/L - microgram per liter
mg/L - milligram per liter
ng/L - nanogram per liter
pg/L - picogram per liter
U - Compound not detected above the reporting limit

Table C-4
Go-Backs, Trenches and Soil Vapor Locations - Trip Blanks

			Sample Name:		TB-011314		TB-011414		TB-051214		TB-051514		TB-051614		TB-060914		TB-061214		TB-061314		TB-061614		TB1-051314	
			Location:		TRIP BLANK FDG		TRIP BLANK FDG		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK FDG		TRIP BLANK FDG		TRIP BLANK FDG	
			Sample Date:		01/13/2014		01/14/2014		05/12/2014		05/15/2014		05/16/2014		06/09/2014		06/12/2014		06/13/2014		06/16/2014		05/13/2014	
			Sample Type:		TB		TB		TB		TB		TB		TB		TB		TB		TB		TB	
			Lab:		LL		LL		LL		LL		LL		LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units		Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
1,1,1-Trichloroethane	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
1,1,2,2-Tetrachloroethane	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
1,1,2-Trichloro-1,2,2-trifluoroethane	8260B	µg/L					5	U	5	U	5	U	10	U	10	U			10	U				
1,1,2-Trichloroethane	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
1,1-Dichloroethane	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
1,1-Dichloroethene	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
1,1-Dichloropropene	8260B	µg/L					5	U	5	U	5	U	5	U	5	U			5	U				
1,2,3-Trichlorobenzene	8260B	µg/L					5	U	5	U	5	U	5	U	5	U			5	U				
1,2,3-Trichloropropane	8260B	µg/L					5	U	5	U	5	U	5	U	5	U			5	U				
1,2,4-Trichlorobenzene	8260B	µg/L					5	U	5	U	5	U	5	U	5	U			5	U				
1,2,4-Trimethylbenzene	8260B	µg/L					5	U	5	U	5	U	5	U	5	U			5	U				
1,2-Dibromo-3-chloropropane	8260B	µg/L					5	U	5	U	5	U	5	U	5	U			5	U				
1,2-Dibromoethane	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
1,2-Dichlorobenzene	8260B	µg/L					5	U	5	U	5	U	5	U	5	U			5	U				
1,2-Dichloroethane	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
1,2-Dichloropropane	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
1,3,5-Trimethylbenzene	8260B	µg/L					5	U	5	U	5	U	5	U	5	U			5	U				
1,3-Dichlorobenzene	8260B	µg/L					5	U	5	U	5	U	5	U	5	U			5	U				
1,3-Dichloropropane	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
1,4-Dichlorobenzene	8260B	µg/L					5	U	5	U	5	U	5	U	5	U			5	U				
1,4-Dioxane	8260B SIM	µg/L																	2	U				
1-Chlorohexane	8260B	µg/L					5	U	5	U	5	U	5	U	5	U			5	U				
2,2-Dichloropropane	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
2-Butanone (MEK)	8260B	µg/L					10	U	10	U	10	U	10	U	10	U			10	U				
2-Chloro-1,1,1-trifluoroethane	8260B	µg/L					5	U	5	U	5	U	5	U	5	U			5	U				
2-Chloroethyl Vinyl Ether	8260B	µg/L					10	U	10	U	10	U	10	U	10	U			10	U				
2-Chlorotoluene	8260B	µg/L					5	U	5	U	5	U	5	U	5	U			5	U				
2-Hexanone	8260B	µg/L					10	U	10	U	10	U	10	U	10	U			10	U				
2-Phenylbutane	8260B	µg/L					5	U	5	U	5	U	5	U	5	U			5	U				
4-Chlorotoluene	8260B	µg/L					5	U	5	U	5	U	5	U	5	U			5	U				
4-Methyl-2-pentanone (MIBK)	8260B	µg/L					10	U	10	U	10	U	10	U	10	U			10	U				
Acetone	8260B	µg/L					20	U	20	U	20	U	20	U	20	U			20	U				
Acrolein	8260B	µg/L					100	U	100	U	100	U	100	U	100	U			100	U				
Acrylonitrile	8260B	µg/L					20	U	20	U	20	U	20	U	20	U			20	U				
Benzene	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
Bromobenzene	8260B	µg/L					5	U	5	U	5	U	5	U	5	U			5	U				
Bromochloromethane	8260B	µg/L					5	U	5	U	5	U	5	U	5	U			5	U				
Bromodichloromethane	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
Bromoform	8260B	µg/L					5	U	5	U	5	U	4	U	4	U			4	U				
Bromomethane	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
Carbon Disulfide	8260B	µg/L					5	U	5	U	5	U	5	U	5	U			5	U				
Carbon Tetrachloride	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
Chlorobenzene	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
Chloroethane	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
Chloroform	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
Chloromethane	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
Chlorotrifluoroethylene	8260B	µg/L					5	UJ	5	UJ	5	UJ	5	U	5	U			5	U				
cis-1,2-Dichloroethene	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
cis-1,3-Dichloropropene	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
Cymene	8260B	µg/L					5	U	5	U	5	U	5	U	5	U			5	U				
Di isopropyl Ether	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
Dibromochloromethane	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
Dibromomethane	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
Dichlorodifluoromethane	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
Ethylbenzene	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
Gasoline Range Organics (C5-C12)	8015M	µg/L	50	U		50	U											50	U	50	U	50	U	
Hexachloro-1,3-butadiene	8260B	µg/L					5	U	5	U	5	U	5	U	5	U			5	U				
Isopropylbenzene	8260B	µg/L					5	U	5	U	5	U	5	U	5	U			5	U				
m,p-Xylene	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
Methyl Iodide	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
Methyl Tert-Butyl Ether	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U				
Methylene Chloride	8260B	µg/L					5	U	5	U	5	U	3	U	3	U			3	U				

Table C-4
Go-Backs, Trenches and Soil Vapor Locations - Trip Blanks

	Sample Name:	TB-011314		TB-011414		TB-051214		TB-051514		TB-051614		TB-060914		TB-061214		TB-061314		TB-061614		TB1-051314	
	Location:	TRIP BLANK FDG		TRIP BLANK FDG		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK FDG		TRIP BLANK FDG		TRIP BLANK FDG	
	Sample Date:	01/13/2014		01/14/2014		05/12/2014		05/15/2014		05/16/2014		06/09/2014		06/12/2014		06/13/2014		06/16/2014		05/13/2014	
	Sample Type:	TB		TB		TB		TB		TB		TB		TB		TB		TB		TB	
	Lab:	LL		LL		LL		LL		LL		LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
n-Butylbenzene	8260B	µg/L					5	U	5	U	5	U	5	U	5	U			5	U		
n-Propylbenzene	8260B	µg/L					5	U	5	U	5	U	5	U	5	U			5	U		
o-Xylene	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U		
Styrene	8260B	µg/L					5	U	5	U	5	U	5	U	5	U			5	U		
tert-Butyl ethyl ether	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U		
tert-Butylbenzene	8260B	µg/L					5	U	5	U	5	U	5	U	5	U			5	U		
Tertiary amyl methyl ether	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U		
Tertiary butyl alcohol	8260B	µg/L					50	U	50	U	50	U	50	U	50	U			50	U		
Tetrachloroethene	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U		
Toluene	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U		
trans-1,2-Dichloroethene	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U		
trans-1,3-Dichloropropene	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U		
Trichloroethene	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U		
Trichlorofluoromethane	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U		
Vinyl Acetate	8260B	µg/L					10	U	10	U	10	U	10	U	10	U			10	UJ		
Vinyl Chloride	8260B	µg/L					5	U	5	U	5	U	1	U	1	U			1	U		

Notes:
ug/L - microgram per liter
U - Compound not detected above the reporting limit

Table C-4
Go-Backs, Trenches and Soil Vapor Locations - Trip Blanks

		Sample Name:	TB1-051414		TB1-051914		TB1-052014		TB1-052114		TB1-052214		TB1-060314		TB1-060514		TB1-060614		TB1-061014		TB1-061114	
		Location:	TRIP BLANK FDG		TRIP BLANK SV		TRIP BLANK FDG		TRIP BLANK FDG		TRIP BLANK FDG		TRIP BLANK SV		TRIP BLANK FDG		TRIP BLANK FDG		TRIP BLANK FDG		TRIP BLANK FDG	
		Sample Date:	05/14/2014		05/19/2014		05/20/2014		05/21/2014		05/22/2014		06/03/2014		06/05/2014		06/06/2014		06/10/2014		06/11/2014	
		Sample Type:	TB		TB		TB		TB		TB		TB		TB		TB		TB		TB	
		Lab:	LL		LL		LL		LL		LL		LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	µg/L			5	U							5	U								
1,1,1-Trichloroethane	8260B	µg/L			5	U							5	U								
1,1,2,2-Tetrachloroethane	8260B	µg/L			5	U							5	U								
1,1,2-Trichloro-1,2,2-trifluoroethane	8260B	µg/L			5	U							5	U								
1,1,2-Trichloroethane	8260B	µg/L			5	U							5	U								
1,1-Dichloroethane	8260B	µg/L			5	U							5	U								
1,1-Dichloroethene	8260B	µg/L			5	U							5	U								
1,1-Dichloropropene	8260B	µg/L			5	U							5	U								
1,2,3-Trichlorobenzene	8260B	µg/L			5	U							5	U								
1,2,3-Trichloropropane	8260B	µg/L			5	U							5	U								
1,2,4-Trichlorobenzene	8260B	µg/L			5	U							5	U								
1,2,4-Trimethylbenzene	8260B	µg/L			5	U							5	U								
1,2-Dibromo-3-chloropropane	8260B	µg/L			5	U							5	U								
1,2-Dibromoethane	8260B	µg/L			5	U							5	U								
1,2-Dichlorobenzene	8260B	µg/L			5	U							5	U								
1,2-Dichloroethane	8260B	µg/L			5	U							5	U								
1,2-Dichloropropane	8260B	µg/L			5	U							5	U								
1,3,5-Trimethylbenzene	8260B	µg/L			5	U							5	U								
1,3-Dichlorobenzene	8260B	µg/L			5	U							5	U								
1,3-Dichloropropane	8260B	µg/L			5	U							5	U								
1,4-Dichlorobenzene	8260B	µg/L			5	U							5	U								
1,4-Dioxane	8260B SIM	µg/L																				
1-Chlorohexane	8260B	µg/L			5	U							5	U								
2,2-Dichloropropane	8260B	µg/L			5	U							5	U								
2-Butanone (MEK)	8260B	µg/L			10	U							10	U								
2-Chloro-1,1,1-trifluoroethane	8260B	µg/L			5	U							5	U								
2-Chloroethyl Vinyl Ether	8260B	µg/L			10	U							10	U								
2-Chlorotoluene	8260B	µg/L			5	U							5	U								
2-Hexanone	8260B	µg/L			10	U							10	U								
2-Phenylbutane	8260B	µg/L			5	U							5	U								
4-Chlorotoluene	8260B	µg/L			5	U							5	U								
4-Methyl-2-pentanone (MIBK)	8260B	µg/L			10	U							10	U								
Acetone	8260B	µg/L			20	U							20	U								
Acrolein	8260B	µg/L			100	U							100	U								
Acrylonitrile	8260B	µg/L			20	U							20	U								
Benzene	8260B	µg/L			5	U							5	U								
Bromobenzene	8260B	µg/L			5	U							5	U								
Bromochloromethane	8260B	µg/L			5	U							5	U								
Bromodichloromethane	8260B	µg/L			5	U							5	U								
Bromoform	8260B	µg/L			5	U							5	U								
Bromomethane	8260B	µg/L			5	U							5	U								
Carbon Disulfide	8260B	µg/L			5	U							5	U								
Carbon Tetrachloride	8260B	µg/L			5	U							5	U								
Chlorobenzene	8260B	µg/L			5	U							5	U								
Chloroethane	8260B	µg/L			5	U							5	U								
Chloroform	8260B	µg/L			5	U							5	U								
Chloromethane	8260B	µg/L			5	U							5	U								
Chlorotrifluoroethylene	8260B	µg/L			5	UJ							5	U								
cis-1,2-Dichloroethene	8260B	µg/L			5	U							5	U								
cis-1,3-Dichloropropene	8260B	µg/L			5	U							5	U								
Cymene	8260B	µg/L			5	U							5	U								
Di isopropyl Ether	8260B	µg/L			5	U							5	U								
Dibromochloromethane	8260B	µg/L			5	U							5	U								
Dibromomethane	8260B	µg/L			5	U							5	U								
Dichlorodifluoromethane	8260B	µg/L			5	U							5	U								
Ethylbenzene	8260B	µg/L			5	U							5	U								
Gasoline Range Organics (C5-C12)	8015M	µg/L	50	U			50	U	50	U	50	U			50	U	50	U	50	U	50	U
Hexachloro-1,3-butadiene	8260B	µg/L			5	U							5	U								
Isopropylbenzene	8260B	µg/L			5	U							5	U								
m,p-Xylene	8260B	µg/L			5	U							5	U								
Methyl Iodide	8260B	µg/L			5	U							5	U								
Methyl Tert-Butyl Ether	8260B	µg/L			5	U							5	U								
Methylene Chloride	8260B	µg/L			5	U							5	U								

Table C-4
Go-Backs, Trenches and Soil Vapor Locations - Trip Blanks

	Sample Name:	TB1-051414		TB1-051914		TB1-052014		TB1-052114		TB1-052214		TB1-060314		TB1-060514		TB1-060614		TB1-061014		TB1-061114	
	Location:	TRIP BLANK FDG		TRIP BLANK SV		TRIP BLANK FDG		TRIP BLANK FDG		TRIP BLANK FDG		TRIP BLANK SV		TRIP BLANK FDG		TRIP BLANK FDG		TRIP BLANK FDG		TRIP BLANK FDG	
	Sample Date:	05/14/2014		05/19/2014		05/20/2014		05/21/2014		05/22/2014		06/03/2014		06/05/2014		06/06/2014		06/10/2014		06/11/2014	
	Sample Type:	TB		TB		TB		TB		TB		TB		TB		TB		TB		TB	
	Lab:	LL		LL		LL		LL		LL		LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
n-Butylbenzene	8260B	µg/L			5	U							5	U								
n-Propylbenzene	8260B	µg/L			5	U							5	U								
o-Xylene	8260B	µg/L			5	U							5	U								
Styrene	8260B	µg/L			5	U							5	U								
tert-Butyl ethyl ether	8260B	µg/L			5	U							5	U								
tert-Butylbenzene	8260B	µg/L			5	U							5	U								
Tertiary amyl methyl ether	8260B	µg/L			5	U							5	U								
Tertiary butyl alcohol	8260B	µg/L			50	U							50	U								
Tetrachloroethene	8260B	µg/L			5	U							5	U								
Toluene	8260B	µg/L			5	U							5	U								
trans-1,2-Dichloroethene	8260B	µg/L			5	U							5	U								
trans-1,3-Dichloropropene	8260B	µg/L			5	U							5	U								
Trichloroethene	8260B	µg/L			5	U							5	U								
Trichlorofluoromethane	8260B	µg/L			5	U							5	U								
Vinyl Acetate	8260B	µg/L			10	U							10	U								
Vinyl Chloride	8260B	µg/L			5	U							5	U								

Notes:
ug/L - microgram per liter
U - Compound not detected above the reporting limit

Table C-4
Go-Backs, Trenches and Soil Vapor Locations - Trip Blanks

			Sample Name:	TB2-051314		TB2-051414		TB2-051914		TB2-052014		TB2-052114		TB2-052214		TB2-052314		TB2-052714		TB2-052814		TB2-052914	
			Location:	TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK TRENCH		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK SV	
			Sample Date:	05/13/2014		05/14/2014		05/19/2014		05/20/2014		05/21/2014		05/22/2014		05/23/2014		05/27/2014		05/28/2014		05/29/2014	
			Sample Type:	TB		TB		TB		TB		TB		TB		TB		TB		TB		TB	
			Lab:	LL		LL		LL		LL		LL		LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
1,1,1-Trichloroethane	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
1,1,2-Trichloro-1,2,2-trifluoroethane	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	10	U	10	U	10	U
1,1,2-Trichloroethane	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
1,1-Dichloroethane	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
1,1-Dichloroethene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
1,1-Dichloropropene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2,3-Trichlorobenzene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2,3-Trichloropropane	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2,4-Trichlorobenzene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2,4-Trimethylbenzene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dibromo-3-chloropropane	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dibromoethane	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
1,2-Dichlorobenzene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dichloroethane	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
1,2-Dichloropropane	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,3-Dichlorobenzene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,3-Dichloropropane	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
1,4-Dichlorobenzene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,4-Dioxane	8260B SIM	µg/L																				
1-Chlorohexane	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U	5	U
2,2-Dichloropropane	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
2-Butanone (MEK)	8260B	µg/L	10	U	10	U			10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Chloro-1,1,1-trifluoroethane	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Chloroethyl Vinyl Ether	8260B	µg/L	10	U	10	U			10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Chlorotoluene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Hexanone	8260B	µg/L	10	U	10	U			10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Phenylbutane	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Chlorotoluene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Methyl-2-pentanone (MIBK)	8260B	µg/L	10	U	10	U			10	U	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	8260B	µg/L	20	U	20	U			20	U	20	U	20	U	20	U	20	U	20	U	20	U
Acrolein	8260B	µg/L	100	U	100	U			100	U	100	U	100	U	100	U	100	U	100	U	100	U
Acrylonitrile	8260B	µg/L	20	U	20	U			20	U	20	U	20	U	20	U	20	U	20	U	20	U
Benzene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
Bromobenzene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U	5	U
Bromochloromethane	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U	5	U
Bromodichloromethane	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
Bromoform	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	4	U	4	U	4	U
Bromomethane	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
Carbon Disulfide	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U	5	U
Carbon Tetrachloride	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
Chlorobenzene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
Chloroethane	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
Chloroform	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
Chloromethane	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
Chlorotrifluoroethylene	8260B	µg/L	5	UJ	5	UJ			5	UJ	5	UJ	5	UJ	5	UJ	5	U	5	U	5	U
cis-1,2-Dichloroethene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
cis-1,3-Dichloropropene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
Cymene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U	5	U
Di isopropyl Ether	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
Dibromochloromethane	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
Dibromomethane	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
Dichlorodifluoromethane	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
Ethylbenzene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
Gasoline Range Organics (C5-C12)	8015M	µg/L					50	U														
Hexachloro-1,3-butadiene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U	5	U
Isopropylbenzene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U	5	U
m,p-Xylene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
Methyl Iodide	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
Methyl Tert-Butyl Ether	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U
Methylene Chloride	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	3	U	3	U	3	U

Table C-4
Go-Backs, Trenches and Soil Vapor Locations - Trip Blanks

			Sample Name:		TB2-051314		TB2-051414		TB2-051914		TB2-052014		TB2-052114		TB2-052214		TB2-052314		TB2-052714		TB2-052814		TB2-052914	
			Location:		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK TRENCH		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK SV	
			Sample Date:		05/13/2014		05/14/2014		05/19/2014		05/20/2014		05/21/2014		05/22/2014		05/23/2014		05/27/2014		05/28/2014		05/29/2014	
			Sample Type:		TB		TB		TB		TB		TB		TB		TB		TB		TB		TB	
			Lab:		LL		LL		LL		LL		LL		LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
n-Butylbenzene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
n-Propylbenzene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
o-Xylene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U	1	U
Styrene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
tert-Butyl ethyl ether	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U	1	U
tert-Butylbenzene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Tertiary amyl methyl ether	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U	1	U
Tertiary butyl alcohol	8260B	µg/L	50	U	50	U			50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Tetrachloroethene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U	1	U
Toluene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U	1	U
trans-1,3-Dichloropropene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U	1	U
Trichloroethene	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U	1	U
Trichlorofluoromethane	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U	1	U
Vinyl Acetate	8260B	µg/L	10	U	10	U			10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Vinyl Chloride	8260B	µg/L	5	U	5	U			5	U	5	U	5	U	5	U	1	U	1	U	1	U	1	U

Notes:
ug/L - microgram per liter
U - Compound not detected above the reporting limit

Table C-4
Go-Backs, Trenches and Soil Vapor Locations - Trip Blanks

			Sample Name:		TB2-060414		TB2-060514		TB2-060614		TB2-061014		TB2-061114		TB3-052014		TB3-052114		TB3-052214		TB3-052314		TB3-052714	
			Location:		TRIP BLANK TRENCH		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK TRENCH		TRIP BLANK TRENCH		TRIP BLANK TRENCH		TRIP BLANK TRENCH		TRIP BLANK TRENCH	
			Sample Date:		06/04/2014		06/05/2014		06/06/2014		06/10/2014		06/11/2014		05/20/2014		05/21/2014		05/22/2014		05/23/2014		05/27/2014	
			Sample Type:		TB		TB		TB		TB		TB		TB		TB		TB		TB		TB	
			Lab:		LL		LL		LL		LL		LL		LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units		Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	µg/L				1	U	1	U	1	U	1	U												
1,1,1-Trichloroethane	8260B	µg/L				1	U	1	U	1	U	1	U												
1,1,2,2-Tetrachloroethane	8260B	µg/L				1	U	1	U	1	U	1	U												
1,1,2-Trichloro-1,2,2-trifluoroethane	8260B	µg/L				10	U	10	U	10	U	10	U												
1,1,2-Trichloroethane	8260B	µg/L				1	U	1	U	1	U	1	U												
1,1-Dichloroethane	8260B	µg/L				1	U	1	U	1	U	1	U												
1,1-Dichloroethene	8260B	µg/L				1	U	1	U	1	U	1	U												
1,1-Dichloropropene	8260B	µg/L				5	U	5	U	5	U	5	U												
1,2,3-Trichlorobenzene	8260B	µg/L				5	U	5	U	5	U	5	U												
1,2,3-Trichloropropane	8260B	µg/L				5	U	5	U	5	U	5	U												
1,2,4-Trichlorobenzene	8260B	µg/L				5	U	5	U	5	U	5	U												
1,2,4-Trimethylbenzene	8260B	µg/L				5	U	5	U	5	U	5	U												
1,2-Dibromo-3-chloropropane	8260B	µg/L				5	U	5	U	5	U	5	U												
1,2-Dibromoethane	8260B	µg/L				1	U	1	U	1	U	1	U												
1,2-Dichlorobenzene	8260B	µg/L				5	U	5	U	5	U	5	U												
1,2-Dichloroethane	8260B	µg/L				1	U	1	U	1	U	1	U												
1,2-Dichloropropane	8260B	µg/L				1	U	1	U	1	U	1	U												
1,3,5-Trimethylbenzene	8260B	µg/L				5	U	5	U	5	U	5	U												
1,3-Dichlorobenzene	8260B	µg/L				5	U	5	U	5	U	5	U												
1,3-Dichloropropane	8260B	µg/L				1	U	1	U	1	U	1	U												
1,4-Dichlorobenzene	8260B	µg/L				5	U	5	U	5	U	5	U												
1,4-Dioxane	8260B SIM	µg/L																							
1-Chlorohexane	8260B	µg/L				5	U	5	U	5	U	5	U												
2,2-Dichloropropane	8260B	µg/L				1	U	1	U	1	U	1	U												
2-Butanone (MEK)	8260B	µg/L				10	U	10	U	10	U	10	U												
2-Chloro-1,1,1-trifluoroethane	8260B	µg/L				5	U	5	U	5	U	5	U												
2-Chloroethyl Vinyl Ether	8260B	µg/L				10	U	10	U	10	U	10	U												
2-Chlorotoluene	8260B	µg/L				5	U	5	U	5	U	5	U												
2-Hexanone	8260B	µg/L				10	U	10	U	10	U	10	U												
2-Phenylbutane	8260B	µg/L				5	U	5	U	5	U	5	U												
4-Chlorotoluene	8260B	µg/L				5	U	5	U	5	U	5	U												
4-Methyl-2-pentanone (MIBK)	8260B	µg/L				10	U	10	U	10	U	10	U												
Acetone	8260B	µg/L				20	U	20	U	20	U	20	U												
Acrolein	8260B	µg/L				100	U	100	U	100	U	100	U												
Acrylonitrile	8260B	µg/L				20	U	20	U	20	U	20	U												
Benzene	8260B	µg/L				1	U	1	U	1	U	1	U												
Bromobenzene	8260B	µg/L				5	U	5	U	5	U	5	U												
Bromochloromethane	8260B	µg/L				5	U	5	U	5	U	5	U												
Bromodichloromethane	8260B	µg/L				1	U	1	U	1	U	1	U												
Bromoform	8260B	µg/L				4	U	4	U	4	U	4	U												
Bromomethane	8260B	µg/L				1	U	1	U	1	U	1	U												
Carbon Disulfide	8260B	µg/L				5	U	5	U	5	U	5	U												
Carbon Tetrachloride	8260B	µg/L				1	U	1	U	1	U	1	U												
Chlorobenzene	8260B	µg/L				1	U	1	U	1	U	1	U												
Chloroethane	8260B	µg/L				1	U	1	U	1	U	1	U												
Chloroform	8260B	µg/L				1	U	1	U	1	U	1	U												
Chloromethane	8260B	µg/L				1	U	1	U	1	U	1	U												
Chlorotrifluoroethylene	8260B	µg/L				5	U	5	U	5	U	5	U												
cis-1,2-Dichloroethene	8260B	µg/L				1	U	1	U	1	U	1	U												
cis-1,3-Dichloropropene	8260B	µg/L				1	U	1	U	1	U	1	U												
Cymene	8260B	µg/L				5	U	5	U	5	U	5	U												
Di isopropyl Ether	8260B	µg/L				1	U	1	U	1	U	1	U												
Dibromochloromethane	8260B	µg/L				1	U	1	U	1	U	1	U												
Dibromomethane	8260B	µg/L				1	U	1	U	1	U	1	U												
Dichlorodifluoromethane	8260B	µg/L				1	U	1	U	1	U	1	U												
Ethylbenzene	8260B	µg/L				1	U	1	U	1	U	1	U												
Gasoline Range Organics (C5-C12)	8015M	µg/L		50	U									50	U	50	U	50	U	50	U	50	U		
Hexachloro-1,3-butadiene	8260B	µg/L				5	U	5	U	5	U	5	U												
Isopropylbenzene	8260B	µg/L				5	U	5	U	5	U	5	U												
m,p-Xylene	8260B	µg/L				1	U	1	U	1	U	1	U												
Methyl Iodide	8260B	µg/L				1	U	1	U	1	U	1	U												
Methyl Tert-Butyl Ether	8260B	µg/L				1	U	1	U	1	U	1	U												
Methylene Chloride	8260B	µg/L				3	U	3	U	3	U	3	U												

Table C-4
Go-Backs, Trenches and Soil Vapor Locations - Trip Blanks

	Sample Name:	TB2-060414		TB2-060514		TB2-060614		TB2-061014		TB2-061114		TB3-052014		TB3-052114		TB3-052214		TB3-052314		TB3-052714	
	Location:	TRIP BLANK TRENCH		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK TRENCH		TRIP BLANK TRENCH		TRIP BLANK TRENCH		TRIP BLANK TRENCH		TRIP BLANK TRENCH	
	Sample Date:	06/04/2014		06/05/2014		06/06/2014		06/10/2014		06/11/2014		05/20/2014		05/21/2014		05/22/2014		05/23/2014		05/27/2014	
	Sample Type:	TB		TB		TB		TB		TB		TB		TB		TB		TB		TB	
	Lab:	LL		LL		LL		LL		LL		LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
n-Butylbenzene	8260B	µg/L			5	U	5	U	5	U	5	U										
n-Propylbenzene	8260B	µg/L			5	U	5	U	5	U	5	U										
o-Xylene	8260B	µg/L			1	U	1	U	1	U	1	U										
Styrene	8260B	µg/L			5	U	5	U	5	U	5	U										
tert-Butyl ethyl ether	8260B	µg/L			1	U	1	U	1	U	1	U										
tert-Butylbenzene	8260B	µg/L			5	U	5	U	5	U	5	U										
Tertiary amyl methyl ether	8260B	µg/L			1	U	1	U	1	U	1	U										
Tertiary butyl alcohol	8260B	µg/L			50	U	50	U	50	U	50	U										
Tetrachloroethene	8260B	µg/L			1	U	1	U	1	U	1	U										
Toluene	8260B	µg/L			1	U	1	U	1	U	1	U										
trans-1,2-Dichloroethene	8260B	µg/L			1	U	1	U	1	U	1	U										
trans-1,3-Dichloropropene	8260B	µg/L			1	U	1	U	1	U	1	U										
Trichloroethene	8260B	µg/L			1	U	1	U	1	U	1	U										
Trichlorofluoromethane	8260B	µg/L			1	U	1	U	1	U	1	U										
Vinyl Acetate	8260B	µg/L			10	U	10	U	10	U	10	U										
Vinyl Chloride	8260B	µg/L			1	U	1	U	1	U	1	U										

Notes:
ug/L - microgram per liter
U - Compound not detected above the reporting limit

Table C-4
Go-Backs, Trenches and Soil Vapor Locations - Trip Blanks

		Sample Name:	TB3-052814		TB3-052914		TB3-053014		TB3-060214		TB3-060414		TB4-060214	
		Location:	TRIP BLANK TRENCH		TRIP BLANK TRENCH		TRIP BLANK TRENCH		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK TRENCH	
		Sample Date:	05/28/2014		05/29/2014		05/30/2014		06/02/2014		06/04/2014		06/02/2014	
		Sample Type:	TB		TB		TB		TB		TB		TB	
		Lab:	LL		LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	µg/L							1	U	5	U		
1,1,1-Trichloroethane	8260B	µg/L							1	U	5	U		
1,1,2,2-Tetrachloroethane	8260B	µg/L							1	U	5	U		
1,1,2-Trichloro-1,2,2-trifluoroethane	8260B	µg/L							10	U	5	U		
1,1,2-Trichloroethane	8260B	µg/L							1	U	5	U		
1,1-Dichloroethane	8260B	µg/L							1	U	5	U		
1,1-Dichloroethene	8260B	µg/L							1	U	5	U		
1,1-Dichloropropene	8260B	µg/L							5	U	5	U		
1,2,3-Trichlorobenzene	8260B	µg/L							5	U	5	U		
1,2,3-Trichloropropane	8260B	µg/L							5	U	5	U		
1,2,4-Trichlorobenzene	8260B	µg/L							5	U	5	U		
1,2,4-Trimethylbenzene	8260B	µg/L							5	U	5	U		
1,2-Dibromo-3-chloropropane	8260B	µg/L							5	U	5	U		
1,2-Dibromoethane	8260B	µg/L							1	U	5	U		
1,2-Dichlorobenzene	8260B	µg/L							5	U	5	U		
1,2-Dichloroethane	8260B	µg/L							1	U	5	U		
1,2-Dichloropropane	8260B	µg/L							1	U	5	U		
1,3,5-Trimethylbenzene	8260B	µg/L							5	U	5	U		
1,3-Dichlorobenzene	8260B	µg/L							5	U	5	U		
1,3-Dichloropropane	8260B	µg/L							1	U	5	U		
1,4-Dichlorobenzene	8260B	µg/L							5	U	5	U		
1,4-Dioxane	8260B SIM	µg/L												
1-Chlorohexane	8260B	µg/L							5	U	5	U		
2,2-Dichloropropane	8260B	µg/L							1	U	5	U		
2-Butanone (MEK)	8260B	µg/L							10	U	10	U		
2-Chloro-1,1,1-trifluoroethane	8260B	µg/L							5	U	5	U		
2-Chloroethyl Vinyl Ether	8260B	µg/L							10	U	10	U		
2-Chlorotoluene	8260B	µg/L							5	U	5	U		
2-Hexanone	8260B	µg/L							10	U	10	U		
2-Phenylbutane	8260B	µg/L							5	U	5	U		
4-Chlorotoluene	8260B	µg/L							5	U	5	U		
4-Methyl-2-pentanone (MIBK)	8260B	µg/L							10	U	10	U		
Acetone	8260B	µg/L							20	U	20	U		
Acrolein	8260B	µg/L							100	U	100	U		
Acrylonitrile	8260B	µg/L							20	U	20	U		
Benzene	8260B	µg/L							1	U	5	U		
Bromobenzene	8260B	µg/L							5	U	5	U		
Bromochloromethane	8260B	µg/L							5	U	5	U		
Bromodichloromethane	8260B	µg/L							1	U	5	U		
Bromoform	8260B	µg/L							4	U	5	U		
Bromomethane	8260B	µg/L							1	U	5	U		
Carbon Disulfide	8260B	µg/L							5	U	5	U		
Carbon Tetrachloride	8260B	µg/L							1	U	5	U		
Chlorobenzene	8260B	µg/L							1	U	5	U		
Chloroethane	8260B	µg/L							1	U	5	U		
Chloroform	8260B	µg/L							1	U	5	U		
Chloromethane	8260B	µg/L							1	U	5	U		
Chlorotrifluoroethylene	8260B	µg/L							5	U	5	U		
cis-1,2-Dichloroethene	8260B	µg/L							1	U	5	U		
cis-1,3-Dichloropropene	8260B	µg/L							1	U	5	U		
Cymene	8260B	µg/L							5	U	5	U		
Di isopropyl Ether	8260B	µg/L							1	U	5	U		
Dibromochloromethane	8260B	µg/L							1	U	5	U		
Dibromomethane	8260B	µg/L							1	U	5	U		
Dichlorodifluoromethane	8260B	µg/L							1	U	5	U		
Ethylbenzene	8260B	µg/L							1	U	5	U		
Gasoline Range Organics (C5-C12)	8015M	µg/L	50	U	50	U	50	U					50	U
Hexachloro-1,3-butadiene	8260B	µg/L							5	U	5	U		
Isopropylbenzene	8260B	µg/L							5	U	5	U		
m,p-Xylene	8260B	µg/L							1	U	5	U		
Methyl Iodide	8260B	µg/L							1	U	5	U		
Methyl Tert-Butyl Ether	8260B	µg/L							1	U	5	U		
Methylene Chloride	8260B	µg/L							3	U	5	U		

Table C-4
Go-Backs, Trenches and Soil Vapor Locations - Trip Blanks

	Sample Name:	TB3-052814		TB3-052914		TB3-053014		TB3-060214		TB3-060414		TB4-060214	
	Location:	TRIP BLANK TRENCH		TRIP BLANK TRENCH		TRIP BLANK TRENCH		TRIP BLANK SV		TRIP BLANK SV		TRIP BLANK TRENCH	
	Sample Date:	05/28/2014		05/29/2014		05/30/2014		06/02/2014		06/04/2014		06/02/2014	
	Sample Type:	TB		TB		TB		TB		TB		TB	
	Lab:	LL		LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
n-Butylbenzene	8260B	µg/L							5	U	5	U		
n-Propylbenzene	8260B	µg/L							5	U	5	U		
o-Xylene	8260B	µg/L							1	U	5	U		
Styrene	8260B	µg/L							5	U	5	U		
tert-Butyl ethyl ether	8260B	µg/L							1	U	5	U		
tert-Butylbenzene	8260B	µg/L							5	U	5	U		
Tertiary amyl methyl ether	8260B	µg/L							1	U	5	U		
Tertiary butyl alcohol	8260B	µg/L							50	U	50	U		
Tetrachloroethene	8260B	µg/L							1	U	5	U		
Toluene	8260B	µg/L							1	U	5	U		
trans-1,2-Dichloroethene	8260B	µg/L							1	U	5	U		
trans-1,3-Dichloropropene	8260B	µg/L							1	U	5	U		
Trichloroethene	8260B	µg/L							1	U	5	U		
Trichlorofluoromethane	8260B	µg/L							1	U	5	U		
Vinyl Acetate	8260B	µg/L							10	U	10	U		
Vinyl Chloride	8260B	µg/L							1	U	5	U		

Notes:
ug/L - microgram per liter
U - Compound not detected above the reporting limit

Table C-5
Field Duplicates for Go-Back Samples

				Location	NBZ_DG-558		NBZ_DG-558		RPD
				Sample Name:	FDG2-SL-858-NBZ-SB-0.0-0.5		FDG2-SL-558-NBZ-SB-0.0-0.5		
				Sample Date	06/09/2014		06/09/2014		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
1,4-Dioxane	1,4-Dioxane	123-91-1	8260B SIM	µg/kg					--
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	8.57		5.59		42.09
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	1.69	J	1.05	J	46.72
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	4.92	U	5	U	--
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	0.255	J	0.164	J	43.44
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	4.92	U	5	U	--
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	0.442	J	0.359	J	20.72
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	4.92	UJ	5	UJ	--
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	0.448	J	0.248	J	57.47
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	4.92	U	5	U	--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	4.92	U	5	U	--
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	0.297	J	5	UJ	200.00
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	4.92	UJ	5	UJ	--
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	4.92	U	5	U	--
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	0.0957	J	1	UJ	200.00
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	0.135	J	0.192	J	34.86
Dioxins	OCDD	3268-87-9	1613B	ng/kg	70.2		50.1		33.42
Dioxins	OCDF	39001-02-0	1613B	ng/kg	3.67	J	2.14	J	52.67
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg	460	U	92	U	--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg	8.7	U			--
Herbicides	2,4-D	94-75-7	8151A	µg/kg	180	U			--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg	100	J			--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg	61	U	12	U	--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg	87	U			--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg	120	U			--
Herbicides	MCPA	94-74-6	8151A	µg/kg	13000	U	2500	U	--
Herbicides	MCPP	93-65-2	8151A	µg/kg	13000	UJ	2500	U	--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg	8.7	U			--
Mercury	Mercury	7439-97-6	7471B	mg/kg	0.028		0.0199		33.82
Metals	Aluminum	7429-90-5	6010C	mg/kg	15600	J	15700	J	0.64
Metals	Antimony	7440-36-0	6010C	mg/kg	3.96	UJ	4.08	UJ	--
Metals	Arsenic	7440-38-2	6010C	mg/kg	4.19		3.91	J	6.91
Metals	Barium	7440-39-3	6010C	mg/kg	111	J	106	J	4.61
Metals	Beryllium	7440-41-7	6010C	mg/kg	0.674	J	0.672	J	0.30
Metals	Boron	7440-42-8	6010C	mg/kg	9.83	J	8.75	J	11.63
Metals	Cadmium	7440-43-9	6010C	mg/kg	0.382	J	0.356	J	7.05
Metals	Calcium	7440-70-2	6010C	mg/kg	4790	J	3950	J	19.22
Metals	Chromium	7440-47-3	6010C	mg/kg	19.5		19.2		1.55
Metals	Cobalt	7440-48-4	6010C	mg/kg	5.77		5.6		2.99
Metals	Copper	7440-50-8	6010C	mg/kg	10.4		9.55		8.52
Metals	Iron	7439-89-6	6010C	mg/kg	22500		21600		4.08
Metals	Lead	7439-92-1	6010C	mg/kg	12.5		9.97		22.52
Metals	Lithium	7439-93-2	6010C	mg/kg	34		33.2		2.38
Metals	Magnesium	7439-95-4	6010C	mg/kg	4760	J	4570	J	4.07
Metals	Manganese	7439-96-5	6010C	mg/kg	403		387		4.05
Metals	Molybdenum	7439-98-7	6010C	mg/kg	0.453	J	0.661	J	37.34
Metals	Nickel	7440-02-0	6010C	mg/kg	14.8	J	14.4	J	2.74
Metals	Phosphorus	7723-14-0	6010C	mg/kg	480		421		13.10
Metals	Potassium	7440-09-7	6010C	mg/kg	4500	J	4310	J	4.31
Metals	Selenium	7782-49-2	6020A	mg/kg	0.361	J	0.351	J	2.81
Metals	Silver	7440-22-4	6020A	mg/kg	0.0691	J	0.0524	J	27.49
Metals	Sodium	7440-23-5	6010C	mg/kg	81.5	J	80.3	J	1.48
Metals	Strontium	7440-24-6	6020A	mg/kg	32.9	J	27.2	J	18.97
Metals	Thallium	7440-28-0	6020A	mg/kg	0.297	J	0.277	J	6.97
Metals	Tin	7440-31-5	6010C	mg/kg	9.91	U	10.2	U	--
Metals	Titanium	7440-32-6	6010C	mg/kg	1060		1030		2.87
Metals	Vanadium	7440-62-2	6010C	mg/kg	37.1		36.3		2.18
Metals	Zinc	7440-66-6	6010C	mg/kg	70.8		62.2		12.93
Metals	Zirconium	7440-67-7	6010C	mg/kg	4.95	U	5.1	U	--
Moisture Content	Moisture	MOIST	160.3M	%	2		1.9		5.13
PAHs	1-Methylnaphthalene	90-12-0	8270D SIM	µg/kg	1.8	J	0.77	J	80.16
PAHs	2-Methylnaphthalene	91-57-6	8270D SIM	µg/kg	2.5	J	0.83	J	100.30
PAHs	Acenaphthene	83-32-9	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Acenaphthylene	208-96-8	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Anthracene	120-12-7	8270D SIM	µg/kg	0.65	J	1.7	UJ	200.00
PAHs	Benzo(a)anthracene	56-55-3	8270D SIM	µg/kg	0.97	J	1.7	UJ	200.00
PAHs	Benzo(a)pyrene	50-32-8	8270D SIM	µg/kg	1.5	J	0.76	J	65.49
PAHs	Benzo(b)fluoranthene	205-99-2	8270D SIM	µg/kg	3	J	1.5	J	66.67
PAHs	Benzo(e)pyrene	192-97-2	8270D SIM	µg/kg	17	U	17	U	--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270D SIM	µg/kg	0.84	J	1.7	UJ	200.00
PAHs	Benzo(k)fluoranthene	207-08-9	8270D SIM	µg/kg	15	J	7.3	J	69.06
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	8270D SIM	µg/kg	20		21		4.88
PAHs	Butylbenzylphthalate	85-68-7	8270D SIM	µg/kg	32	J	8.2	J	118.41
PAHs	Chrysene	218-01-9	8270D SIM	µg/kg	3.1	J	1.5	J	69.57
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Diethylphthalate	84-66-2	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Dimethylphthalate	131-11-3	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Di-n-butylphthalate	84-74-2	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Di-n-octylphthalate	117-84-0	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Fluoranthene	206-44-0	8270D SIM	µg/kg	3.4	J	1.7	J	66.67
PAHs	Fluorene	86-73-7	8270D SIM	µg/kg	1.5	J	1.7	UJ	200.00
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270D SIM	µg/kg	0.76	J	1.7	UJ	200.00
PAHs	Naphthalene	91-20-3	8270D SIM	µg/kg	5.9	J	1.4	J	123.29
PAHs	N-Nitrosodimethylamine	62-75-9	8270D SIM	µg/kg	1.7	UJ	1.7	UJ	--
PAHs	Phenanthrene	85-01-8	8270D SIM	µg/kg	2.8	J	1.4	J	66.67
PAHs	Pyrene	129-00-0	8270D SIM	µg/kg	3.1	J	1.4	J	75.56
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg	17	U	17	U	--

Table C-5
Field Duplicates for Go-Back Samples

				Location	NBZ_DG-558		NBZ_DG-558		RPD
				Sample Name:	FDG2-SL-858-NBZ-SB-0.0-0.5		FDG2-SL-558-NBZ-SB-0.0-0.5		
				Sample Date	06/09/2014		06/09/2014		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg	33	U	33	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg	33	U	33	U	--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg	33	U	33	U	--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg	0.58	J	1.7	UJ	200.00
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg	1.2	J	0.99	J	19.18
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg	1.9		1.6	J	17.14
Pesticides	Aldrin	309-00-2	8081B	µg/kg	0.84	U	0.83	U	--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg	0.84	U	0.83	U	--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg	1.9	U	1.9	U	--
Pesticides	Chlordane	57-74-9	8081B	µg/kg	17	U	17	U	--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg	0.84	U	0.83	U	--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg	1.7	U	1.7	U	--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg	0.84	U	0.83	U	--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg	1.7	U	1.7	U	--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg	1.7	U	1.7	U	--
Pesticides	Endrin	72-20-8	8081B	µg/kg	1.7	U	1.7	U	--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg	0.87	J	0.79	J	9.64
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg	1.8	U	1.8	U	--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg	0.84	U	0.83	U	--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg	0.84	U	0.83	U	--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg	0.84	U	0.83	U	--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg	6.8	U	6.7	U	--
Pesticides	Mirex	2385-85-5	8081B	µg/kg	0.53	J	1.7	UJ	200.00
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg	34	U	33	U	--
pH	pH	pH	9045M	pH	6.26		6.29		0.48
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015M	mg/kg	5.1	U	5.1	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015M	mg/kg	5.1	U	5.1	U	--
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015M	mg/kg	5.3		3.4	J	43.68
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015M	mg/kg	42		28	J	40.00
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015M	mg/kg	66		47	J	33.63
TPH-EFH w/ Silica Gel	EFH (C8-C11) w/ Silica Gel	PHCC8C11SILICA	8015M	mg/kg	5.1	UJ	5.1	UJ	--
TPH-EFH w/ Silica Gel	EFH (C12-C14) w/ Silica Gel	PHCC12C14SILIC/	8015M	mg/kg	5.1	UJ	5.1	UJ	--
TPH-EFH w/ Silica Gel	EFH (C15-C20) w/ Silica Gel	PHCC15C20SILIC/	8015M	mg/kg	5.1	UJ	5.1	UJ	--
TPH-EFH w/ Silica Gel	EFH (C21-C30) w/ Silica Gel	PHCC21C30SILIC/	8015M	mg/kg	5	J	4.1	J	19.78
TPH-EFH w/ Silica Gel	EFH (C30-C40) w/ Silica Gel	PHCC30C40SILIC/	8015M	mg/kg	5.4	J	10	UJ	200.00
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015M	mg/kg					--
VOC	1,1,1,2-Tetrachloroethane	630-20-6	8260B	µg/kg					--
VOC	1,1,1-Trichloroethane	71-55-6	8260B	µg/kg					--
VOC	1,1,2,2-Tetrachloroethane	79-34-5	8260B	µg/kg					--
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260B	µg/kg					--
VOC	1,1,2-Trichloroethane	79-00-5	8260B	µg/kg					--
VOC	1,1-Dichloroethane	75-34-3	8260B	µg/kg					--
VOC	1,1-Dichloroethene	75-35-4	8260B	µg/kg					--
VOC	1,1-Dichloropropene	563-58-6	8260B	µg/kg					--
VOC	1,2,3-Trichlorobenzene	87-61-6	8260B	µg/kg					--
VOC	1,2,3-Trichloropropane	96-18-4	8260B	µg/kg					--
VOC	1,2,4-Trichlorobenzene	120-82-1	8260B	µg/kg					--
VOC	1,2,4-Trimethylbenzene	95-63-6	8260B	µg/kg					--
VOC	1,2-Dibromo-3-chloropropane	96-12-8	8260B	µg/kg					--
VOC	1,2-Dibromoethane	106-93-4	8260B	µg/kg					--
VOC	1,2-Dichlorobenzene	95-50-1	8260B	µg/kg					--
VOC	1,2-Dichloroethane	107-06-2	8260B	µg/kg					--
VOC	1,2-Dichloropropane	78-87-5	8260B	µg/kg					--
VOC	1,3,5-Trimethylbenzene	108-67-8	8260B	µg/kg					--
VOC	1,3-Dichlorobenzene	541-73-1	8260B	µg/kg					--
VOC	1,3-Dichloropropane	142-28-9	8260B	µg/kg					--
VOC	1,4-Dichlorobenzene	106-46-7	8260B	µg/kg					--
VOC	1-Chlorohexane	544-10-5	8260B	µg/kg					--
VOC	2,2-Dichloropropane	594-20-7	8260B	µg/kg					--
VOC	2-Butanone (MEK)	78-93-3	8260B	µg/kg					--
VOC	2-Chloro-1,1,1-trifluoroethane	75-88-7	8260B	µg/kg					--
VOC	2-Chloroethyl Vinyl Ether	110-75-8	8260B	µg/kg					--
VOC	2-Chlorotoluene	95-49-8	8260B	µg/kg					--
VOC	2-Hexanone	591-78-6	8260B	µg/kg					--
VOC	2-Phenylbutane	135-98-8	8260B	µg/kg					--
VOC	4-Chlorotoluene	106-43-4	8260B	µg/kg					--
VOC	4-Methyl-2-pentanone (MIBK)	108-10-1	8260B	µg/kg					--
VOC	Acetone	67-64-1	8260B	µg/kg					--
VOC	Acrolein	107-02-8	8260B	µg/kg					--
VOC	Acrylonitrile	107-13-1	8260B	µg/kg					--
VOC	Benzene	71-43-2	8260B	µg/kg					--
VOC	Bromobenzene	108-86-1	8260B	µg/kg					--
VOC	Bromochloromethane	74-97-5	8260B	µg/kg					--
VOC	Bromodichloromethane	75-27-4	8260B	µg/kg					--
VOC	Bromoform	75-25-2	8260B	µg/kg					--
VOC	Bromomethane	74-83-9	8260B	µg/kg					--
VOC	Carbon Disulfide	75-15-0	8260B	µg/kg					--
VOC	Carbon Tetrachloride	56-23-5	8260B	µg/kg					--
VOC	Chlorobenzene	108-90-7	8260B	µg/kg					--
VOC	Chloroethane	75-00-3	8260B	µg/kg					--
VOC	Chloroform	67-66-3	8260B	µg/kg					--
VOC	Chloromethane	74-87-3	8260B	µg/kg					--
VOC	Chlorotrifluoroethylene	79-38-9	8260B	µg/kg					--
VOC	cis-1,2-Dichloroethene	156-59-2	8260B	µg/kg					--
VOC	cis-1,3-Dichloropropene	10061-01-5	8260B	µg/kg					--
VOC	Cymene	99-87-6	8260B	µg/kg					--
VOC	Di isopropyl Ether	108-20-3	8260B	µg/kg					--
VOC	Dibromochloromethane	124-48-1	8260B	µg/kg					--
VOC	Dibromomethane	74-95-3	8260B	µg/kg					--
VOC	Dichlorodifluoromethane	75-71-8	8260B	µg/kg					--

Table C-5
Field Duplicates for Go-Back Samples

				Location	NBZ_DG-558		NBZ_DG-558		RPD
				Sample Name:	FDG2-SL-858-NBZ-SB-0.0-0.5		FDG2-SL-558-NBZ-SB-0.0-0.5		
				Sample Date	06/09/2014		06/09/2014		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
VOC	Ethylbenzene	100-41-4	8260B	µg/kg					--
VOC	Hexachloro-1,3-butadiene	87-68-3	8260B	µg/kg					--
VOC	Isopropylbenzene	98-82-8	8260B	µg/kg					--
VOC	m,p-Xylene	179601-23-1	8260B	µg/kg					--
VOC	Methyl Iodide	74-88-4	8260B	µg/kg					--
VOC	Methyl Tert-Butyl Ether	1634-04-4	8260B	µg/kg					--
VOC	Methylene Chloride	75-09-2	8260B	µg/kg					--
VOC	n-Butylbenzene	104-51-8	8260B	µg/kg					--
VOC	n-Propylbenzene	103-65-1	8260B	µg/kg					--
VOC	o-Xylene	95-47-6	8260B	µg/kg					--
VOC	Styrene	100-42-5	8260B	µg/kg					--
VOC	tert-Butyl ethyl ether	637-92-3	8260B	µg/kg					--
VOC	tert-Butylbenzene	98-06-6	8260B	µg/kg					--
VOC	Tertiary amyl methyl ether	994-05-8	8260B	µg/kg					--
VOC	Tertiary butyl alcohol	75-65-0	8260B	µg/kg					--
VOC	Tetrachloroethene	127-18-4	8260B	µg/kg					--
VOC	Toluene	108-88-3	8260B	µg/kg					--
VOC	trans-1,2-Dichloroethene	156-60-5	8260B	µg/kg					--
VOC	trans-1,3-Dichloropropene	10061-02-6	8260B	µg/kg					--
VOC	Trichloroethene	79-01-6	8260B	µg/kg					--
VOC	Trichlorofluoromethane	75-69-4	8260B	µg/kg					--
VOC	Vinyl Acetate	108-05-4	8260B	µg/kg					--
VOC	Vinyl Chloride	75-01-4	8260B	µg/kg					--

ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not caluculated when both field duplicate and normal samples are nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C-5
Field Duplicates for Go-Back Samples

				Location	5D_DG-585		5D_DG-585		RPD
				Sample Name:	FDG2-SL-885-SA5D-SB-0.0-0.5		FDG2-SL-585-SA5D-SB-0.0-0.5		
				Sample Date	05/21/2014		05/21/2014		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
1,4-Dioxane	1,4-Dioxane	123-91-1	8260B SIM	µg/kg					--
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	197		144	J	31.09
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	32.8	J	17.1	J	62.93
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	3.43	J	1.95	J	55.02
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	2.1	J	1.51	J	32.69
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	1.95	J	0.95	J	68.97
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	8.66		6.21		32.95
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	1.64	J	0.955	J	52.79
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	4.3	J	3.64	J	16.62
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	1.04	J	0.762	J	30.85
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	1.81	J	1.73	J	4.52
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	1.11	J	0.99	J	11.43
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	2.15	J	1.24	J	53.69
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	1.15	J	1.02	J	11.98
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.02	UJ	1.06	UJ	--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	0.69	J	0.835	J	19.02
Dioxins	OCDD	3268-87-9	1613B	ng/kg	2050		1670		20.43
Dioxins	OCDF	39001-02-0	1613B	ng/kg	104	J	50	J	70.13
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg	21000	U	21000	U	--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--
Mercury	Mercury	7439-97-6	7471B	mg/kg	0.0627		0.0591		5.91
Metals	Aluminum	7429-90-5	6010C	mg/kg	17900	J	16300	J	9.36
Metals	Antimony	7440-36-0	6010C	mg/kg	4.11	UJ	4.23	UJ	--
Metals	Arsenic	7440-38-2	6010C	mg/kg	8.49		6.33		29.15
Metals	Barium	7440-39-3	6010C	mg/kg	112	J	93.9	J	17.58
Metals	Beryllium	7440-41-7	6010C	mg/kg	0.652	J	0.593	J	9.48
Metals	Boron	7440-42-8	6010C	mg/kg	10.3	U	10.6	U	--
Metals	Cadmium	7440-43-9	6010C	mg/kg	0.969	J	0.59	J	48.62
Metals	Calcium	7440-70-2	6010C	mg/kg	3770		3210		16.05
Metals	Chromium	7440-47-3	6010C	mg/kg	26.8	J	23.5	J	13.12
Metals	Cobalt	7440-48-4	6010C	mg/kg	6.64		5.16		25.08
Metals	Copper	7440-50-8	6010C	mg/kg	26.7		16.1		49.53
Metals	Iron	7439-89-6	6010C	mg/kg	23000	J	20100	J	13.46
Metals	Lead	7439-92-1	6010C	mg/kg	15	J	12	J	22.22
Metals	Lithium	7439-93-2	6010C	mg/kg	25.1		22.1		12.71
Metals	Magnesium	7439-95-4	6010C	mg/kg	5130		4300		17.60
Metals	Manganese	7439-96-5	6010C	mg/kg	290	J	218	J	28.35
Metals	Molybdenum	7439-98-7	6010C	mg/kg	0.331	J	0.424	J	24.64
Metals	Nickel	7440-02-0	6010C	mg/kg	17.3	J	14	J	21.09
Metals	Phosphorus	7723-14-0	6010C	mg/kg	448	J	350	J	24.56
Metals	Potassium	7440-09-7	6010C	mg/kg	4090	J	3600	J	12.74
Metals	Selenium	7782-49-2	6020A	mg/kg	0.189	J	0.183	J	3.23
Metals	Silver	7440-22-4	6020A	mg/kg	0.714	J	0.372	J	62.98
Metals	Sodium	7440-23-5	6010C	mg/kg	96.9	J	91.2	J	6.06
Metals	Strontium	7440-24-6	6020A	mg/kg	27	J	24.4	J	10.12
Metals	Thallium	7440-28-0	6020A	mg/kg	0.318		0.3		5.83
Metals	Tin	7440-31-5	6010C	mg/kg	10.3	U	10.6	U	--
Metals	Titanium	7440-32-6	6010C	mg/kg	1140		1030		10.14
Metals	Vanadium	7440-62-2	6010C	mg/kg	42.1	J	37.1	J	12.63
Metals	Zinc	7440-66-6	6010C	mg/kg	111	J	88.2	J	22.89
Metals	Zirconium	7440-67-7	6010C	mg/kg	5.14	U	5.29	U	--
Moisture Content	Moisture	MOIST	160.3M	%	4.6		5.4		16.00
PAHs	1-Methylnaphthalene	90-12-0	8270D SIM	µg/kg	1.3	J	1.6	J	20.69
PAHs	2-Methylnaphthalene	91-57-6	8270D SIM	µg/kg	2.4		2.5		4.08
PAHs	Acenaphthene	83-32-9	8270D SIM	µg/kg	1.7	U	1.8	U	--
PAHs	Acenaphthylene	208-96-8	8270D SIM	µg/kg	0.49	J	0.35	J	33.33
PAHs	Anthracene	120-12-7	8270D SIM	µg/kg	2.5		1.7	J	38.10
PAHs	Benzo(a)anthracene	56-55-3	8270D SIM	µg/kg	7.4		5.7		25.95
PAHs	Benzo(a)pyrene	50-32-8	8270D SIM	µg/kg	9.1		7.5		19.28
PAHs	Benzo(b)fluoranthene	205-99-2	8270D SIM	µg/kg	24		18	J	28.57
PAHs	Benzo(e)pyrene	192-97-2	8270D SIM	µg/kg	18		13	J	32.26
PAHs	Benzo(g,h,i)perylene	191-24-2	8270D SIM	µg/kg	20	J	11	J	58.06
PAHs	Benzo(k)fluoranthene	207-08-9	8270D SIM	µg/kg	6.2		4.8		25.45
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	8270D SIM	µg/kg	22		34		42.86
PAHs	Butylbenzylphthalate	85-68-7	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Chrysene	218-01-9	8270D SIM	µg/kg	20		14	J	35.29
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270D SIM	µg/kg	3		2.1		35.29
PAHs	Diethylphthalate	84-66-2	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Dimethylphthalate	131-11-3	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Di-n-butylphthalate	84-74-2	8270D SIM	µg/kg	19	UJ	7.1	J	200.00
PAHs	Di-n-octylphthalate	117-84-0	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Fluoranthene	206-44-0	8270D SIM	µg/kg	15		11	J	30.77
PAHs	Fluorene	86-73-7	8270D SIM	µg/kg	1.7	U	1.8	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270D SIM	µg/kg	22	J	13	J	51.43
PAHs	Naphthalene	91-20-3	8270D SIM	µg/kg	2.6		2		26.09
PAHs	N-Nitrosodimethylamine	62-75-9	8270D SIM	µg/kg	1.7	U	1.8	U	--
PAHs	Phenanthrene	85-01-8	8270D SIM	µg/kg	12		8.4	J	35.29
PAHs	Pyrene	129-00-0	8270D SIM	µg/kg	11		8.7		23.35
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg	30		28		6.90

Table C-5
Field Duplicates for Go-Back Samples

				Location	5D_DG-585		5D_DG-585		RPD
				Sample Name:	FDG2-SL-885-SA5D-SB-0.0-0.5		FDG2-SL-585-SA5D-SB-0.0-0.5		
				Sample Date	05/21/2014		05/21/2014		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg	34	U	34	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg	34	U	34	U	--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg	22	J	26	J	16.67
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg	1.8	U	1.8	U	--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg	1.6	J	2.4		40.00
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg	6.1		7.8	J	24.46
Pesticides	Aldrin	309-00-2	8081B	µg/kg	0.86	U	0.86	U	--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg	0.86	U	0.86	U	--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg	2	U	2	U	--
Pesticides	Chlordane	57-74-9	8081B	µg/kg	18	U	18	U	--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg	0.86	U	0.86	U	--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg	1.2	J	1.8	UJ	200.00
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg	0.86	U	0.86	U	--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg	1.8	U	1.8	U	--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg	1.8	U	1.8	U	--
Pesticides	Endrin	72-20-8	8081B	µg/kg	1.8	U	1.8	U	--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg	1.8	U	1.8	U	--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg	1.9	U	1.9	U	--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg	0.86	U	0.86	U	--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg	0.86	U	0.86	U	--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg	0.86	U	0.86	U	--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg	6.9	U	7	U	--
Pesticides	Mirex	2385-85-5	8081B	µg/kg	1.8	U	1.8	U	--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg	34	U	34	U	--
pH	pH	pH	9045M	pH	7.29		7.24		0.69
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015M	mg/kg	26	U	5.3	UJ	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015M	mg/kg	26	U	5.3	UJ	--
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015M	mg/kg	13	J	5.3	UJ	200.00
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015M	mg/kg	150	J	7.3	J	181.44
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015M	mg/kg	350	J	18	J	180.43
TPH-EFH w/ Silica Gel	EFH (C8-C11) w/ Silica Gel	PHCC8C11SILICA	8015M	mg/kg	10	U	5.3	U	--
TPH-EFH w/ Silica Gel	EFH (C12-C14) w/ Silica Gel	PHCC12C14SILIC/	8015M	mg/kg	10	U	5.3	U	--
TPH-EFH w/ Silica Gel	EFH (C15-C20) w/ Silica Gel	PHCC15C20SILIC/	8015M	mg/kg	10	U	5.3	U	--
TPH-EFH w/ Silica Gel	EFH (C21-C30) w/ Silica Gel	PHCC21C30SILIC/	8015M	mg/kg	55	J	2.7	J	181.28
TPH-EFH w/ Silica Gel	EFH (C30-C40) w/ Silica Gel	PHCC30C40SILIC/	8015M	mg/kg	100	J	5.7	J	178.43
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015M	mg/kg					--
VOC	1,1,1,2-Tetrachloroethane	630-20-6	8260B	µg/kg					--
VOC	1,1,1-Trichloroethane	71-55-6	8260B	µg/kg					--
VOC	1,1,2,2-Tetrachloroethane	79-34-5	8260B	µg/kg					--
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260B	µg/kg					--
VOC	1,1,2-Trichloroethane	79-00-5	8260B	µg/kg					--
VOC	1,1-Dichloroethane	75-34-3	8260B	µg/kg					--
VOC	1,1-Dichloroethene	75-35-4	8260B	µg/kg					--
VOC	1,1-Dichloropropene	563-58-6	8260B	µg/kg					--
VOC	1,2,3-Trichlorobenzene	87-61-6	8260B	µg/kg					--
VOC	1,2,3-Trichloropropane	96-18-4	8260B	µg/kg					--
VOC	1,2,4-Trichlorobenzene	120-82-1	8260B	µg/kg					--
VOC	1,2,4-Trimethylbenzene	95-63-6	8260B	µg/kg					--
VOC	1,2-Dibromo-3-chloropropane	96-12-8	8260B	µg/kg					--
VOC	1,2-Dibromoethane	106-93-4	8260B	µg/kg					--
VOC	1,2-Dichlorobenzene	95-50-1	8260B	µg/kg					--
VOC	1,2-Dichloroethane	107-06-2	8260B	µg/kg					--
VOC	1,2-Dichloropropane	78-87-5	8260B	µg/kg					--
VOC	1,3,5-Trimethylbenzene	108-67-8	8260B	µg/kg					--
VOC	1,3-Dichlorobenzene	541-73-1	8260B	µg/kg					--
VOC	1,3-Dichloropropane	142-28-9	8260B	µg/kg					--
VOC	1,4-Dichlorobenzene	106-46-7	8260B	µg/kg					--
VOC	1-Chlorohexane	544-10-5	8260B	µg/kg					--
VOC	2,2-Dichloropropane	594-20-7	8260B	µg/kg					--
VOC	2-Butanone (MEK)	78-93-3	8260B	µg/kg					--
VOC	2-Chloro-1,1,1-trifluoroethane	75-88-7	8260B	µg/kg					--
VOC	2-Chloroethyl Vinyl Ether	110-75-8	8260B	µg/kg					--
VOC	2-Chlorotoluene	95-49-8	8260B	µg/kg					--
VOC	2-Hexanone	591-78-6	8260B	µg/kg					--
VOC	2-Phenylbutane	135-98-8	8260B	µg/kg					--
VOC	4-Chlorotoluene	106-43-4	8260B	µg/kg					--
VOC	4-Methyl-2-pentanone (MIBK)	108-10-1	8260B	µg/kg					--
VOC	Acetone	67-64-1	8260B	µg/kg					--
VOC	Acrolein	107-02-8	8260B	µg/kg					--
VOC	Acrylonitrile	107-13-1	8260B	µg/kg					--
VOC	Benzene	71-43-2	8260B	µg/kg					--
VOC	Bromobenzene	108-86-1	8260B	µg/kg					--
VOC	Bromochloromethane	74-97-5	8260B	µg/kg					--
VOC	Bromodichloromethane	75-27-4	8260B	µg/kg					--
VOC	Bromoform	75-25-2	8260B	µg/kg					--
VOC	Bromomethane	74-83-9	8260B	µg/kg					--
VOC	Carbon Disulfide	75-15-0	8260B	µg/kg					--
VOC	Carbon Tetrachloride	56-23-5	8260B	µg/kg					--
VOC	Chlorobenzene	108-90-7	8260B	µg/kg					--
VOC	Chloroethane	75-00-3	8260B	µg/kg					--
VOC	Chloroform	67-66-3	8260B	µg/kg					--
VOC	Chloromethane	74-87-3	8260B	µg/kg					--
VOC	Chlorotrifluoroethylene	79-38-9	8260B	µg/kg					--
VOC	cis-1,2-Dichloroethene	156-59-2	8260B	µg/kg					--
VOC	cis-1,3-Dichloropropene	10061-01-5	8260B	µg/kg					--
VOC	Cymene	99-87-6	8260B	µg/kg					--
VOC	Di isopropyl Ether	108-20-3	8260B	µg/kg					--
VOC	Dibromochloromethane	124-48-1	8260B	µg/kg					--
VOC	Dibromomethane	74-95-3	8260B	µg/kg					--
VOC	Dichlorodifluoromethane	75-71-8	8260B	µg/kg					--

Table C-5
Field Duplicates for Go-Back Samples

				Location	5D_DG-585		5D_DG-585		RPD
				Sample Name:	FDG2-SL-885-SA5D-SB-0.0-0.5		FDG2-SL-585-SA5D-SB-0.0-0.5		
				Sample Date	05/21/2014		05/21/2014		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
VOC	Ethylbenzene	100-41-4	8260B	µg/kg					--
VOC	Hexachloro-1,3-butadiene	87-68-3	8260B	µg/kg					--
VOC	Isopropylbenzene	98-82-8	8260B	µg/kg					--
VOC	m,p-Xylene	179601-23-1	8260B	µg/kg					--
VOC	Methyl Iodide	74-88-4	8260B	µg/kg					--
VOC	Methyl Tert-Butyl Ether	1634-04-4	8260B	µg/kg					--
VOC	Methylene Chloride	75-09-2	8260B	µg/kg					--
VOC	n-Butylbenzene	104-51-8	8260B	µg/kg					--
VOC	n-Propylbenzene	103-65-1	8260B	µg/kg					--
VOC	o-Xylene	95-47-6	8260B	µg/kg					--
VOC	Styrene	100-42-5	8260B	µg/kg					--
VOC	tert-Butyl ethyl ether	637-92-3	8260B	µg/kg					--
VOC	tert-Butylbenzene	98-06-6	8260B	µg/kg					--
VOC	Tertiary amyl methyl ether	994-05-8	8260B	µg/kg					--
VOC	Tertiary butyl alcohol	75-65-0	8260B	µg/kg					--
VOC	Tetrachloroethene	127-18-4	8260B	µg/kg					--
VOC	Toluene	108-88-3	8260B	µg/kg					--
VOC	trans-1,2-Dichloroethene	156-60-5	8260B	µg/kg					--
VOC	trans-1,3-Dichloropropene	10061-02-6	8260B	µg/kg					--
VOC	Trichloroethene	79-01-6	8260B	µg/kg					--
VOC	Trichlorofluoromethane	75-69-4	8260B	µg/kg					--
VOC	Vinyl Acetate	108-05-4	8260B	µg/kg					--
VOC	Vinyl Chloride	75-01-4	8260B	µg/kg					--

ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not caluculated when both field duplicate and normal samples are nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C-5
Field Duplicates for Go-Back Samples

				Location	8_DG-630		8_DG-630		RPD
				Sample Name:	FDG2-SL-930-SA8-SB-4.0-5.0		FDG2-SL-630-SA8-SB-4.0-5.0		
				Sample Date	06/10/2014		06/10/2014		
				Start Depth:	4		4		
				End Depth:	5		5		
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
1,4-Dioxane	1,4-Dioxane	123-91-1	8260B SIM	µg/kg					--
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg					--
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg					--
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg					--
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg					--
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg					--
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg					--
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg					--
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg					--
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg					--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg					--
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg					--
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg					--
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg					--
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg					--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg					--
Dioxins	OCDD	3268-87-9	1613B	ng/kg					--
Dioxins	OCDF	39001-02-0	1613B	ng/kg					--
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--
Mercury	Mercury	7439-97-6	7471B	mg/kg					--
Metals	Aluminum	7429-90-5	6010C	mg/kg					--
Metals	Antimony	7440-36-0	6010C	mg/kg					--
Metals	Arsenic	7440-38-2	6010C	mg/kg					--
Metals	Barium	7440-39-3	6010C	mg/kg					--
Metals	Beryllium	7440-41-7	6010C	mg/kg					--
Metals	Boron	7440-42-8	6010C	mg/kg					--
Metals	Cadmium	7440-43-9	6010C	mg/kg					--
Metals	Calcium	7440-70-2	6010C	mg/kg					--
Metals	Chromium	7440-47-3	6010C	mg/kg					--
Metals	Cobalt	7440-48-4	6010C	mg/kg					--
Metals	Copper	7440-50-8	6010C	mg/kg					--
Metals	Iron	7439-89-6	6010C	mg/kg					--
Metals	Lead	7439-92-1	6010C	mg/kg					--
Metals	Lithium	7439-93-2	6010C	mg/kg					--
Metals	Magnesium	7439-95-4	6010C	mg/kg					--
Metals	Manganese	7439-96-5	6010C	mg/kg					--
Metals	Molybdenum	7439-98-7	6010C	mg/kg					--
Metals	Nickel	7440-02-0	6010C	mg/kg					--
Metals	Phosphorus	7723-14-0	6010C	mg/kg					--
Metals	Potassium	7440-09-7	6010C	mg/kg					--
Metals	Selenium	7782-49-2	6020A	mg/kg					--
Metals	Silver	7440-22-4	6020A	mg/kg					--
Metals	Sodium	7440-23-5	6010C	mg/kg					--
Metals	Strontium	7440-24-6	6020A	mg/kg					--
Metals	Thallium	7440-28-0	6020A	mg/kg					--
Metals	Tin	7440-31-5	6010C	mg/kg					--
Metals	Titanium	7440-32-6	6010C	mg/kg					--
Metals	Vanadium	7440-62-2	6010C	mg/kg					--
Metals	Zinc	7440-66-6	6010C	mg/kg					--
Metals	Zirconium	7440-67-7	6010C	mg/kg					--
Moisture Content	Moisture	MOIST	160.3M	%	8.8		8.5		3.47
PAHs	1-Methylnaphthalene	90-12-0	8270D SIM	µg/kg					--
PAHs	2-Methylnaphthalene	91-57-6	8270D SIM	µg/kg					--
PAHs	Acenaphthene	83-32-9	8270D SIM	µg/kg					--
PAHs	Acenaphthylene	208-96-8	8270D SIM	µg/kg					--
PAHs	Anthracene	120-12-7	8270D SIM	µg/kg					--
PAHs	Benzo(a)anthracene	56-55-3	8270D SIM	µg/kg					--
PAHs	Benzo(a)pyrene	50-32-8	8270D SIM	µg/kg					--
PAHs	Benzo(b)fluoranthene	205-99-2	8270D SIM	µg/kg					--
PAHs	Benzo(e)pyrene	192-97-2	8270D SIM	µg/kg					--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270D SIM	µg/kg					--
PAHs	Benzo(k)fluoranthene	207-08-9	8270D SIM	µg/kg					--
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	8270D SIM	µg/kg					--
PAHs	Butylbenzylphthalate	85-68-7	8270D SIM	µg/kg					--
PAHs	Chrysene	218-01-9	8270D SIM	µg/kg					--
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270D SIM	µg/kg					--
PAHs	Diethylphthalate	84-66-2	8270D SIM	µg/kg					--
PAHs	Dimethylphthalate	131-11-3	8270D SIM	µg/kg					--
PAHs	Di-n-butylphthalate	84-74-2	8270D SIM	µg/kg					--
PAHs	Di-n-octylphthalate	117-84-0	8270D SIM	µg/kg					--
PAHs	Fluoranthene	206-44-0	8270D SIM	µg/kg					--
PAHs	Fluorene	86-73-7	8270D SIM	µg/kg					--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270D SIM	µg/kg					--
PAHs	Naphthalene	91-20-3	8270D SIM	µg/kg					--
PAHs	N-Nitrosodimethylamine	62-75-9	8270D SIM	µg/kg					--
PAHs	Phenanthrene	85-01-8	8270D SIM	µg/kg					--
PAHs	Pyrene	129-00-0	8270D SIM	µg/kg					--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg					--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg					--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg					--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg					--

Table C-5
Field Duplicates for Go-Back Samples

				Location	8_DG-630		8_DG-630		RPD
				Sample Name:	FDG2-SL-930-SA8-SB-4.0-5.0		FDG2-SL-630-SA8-SB-4.0-5.0		
				Sample Date	06/10/2014		06/10/2014		
				Start Depth:	4		4		
				End Depth:	5		5		
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg					--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg					--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg					--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg					--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg					--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane	57-74-9	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045M	pH					--
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015M	mg/kg	5.5	U	5.5	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015M	mg/kg	5.5	U	5.5	U	--
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015M	mg/kg	4.8	J	3.7	J	25.88
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015M	mg/kg	35		26	J	29.51
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015M	mg/kg	61		42	J	36.89
TPH-EFH w/ Silica Gel	EFH (C8-C11) w/ Silica Gel	PHCC8C11SILICA	8015M	mg/kg	5.5	UJ	5.5	UJ	--
TPH-EFH w/ Silica Gel	EFH (C12-C14) w/ Silica Gel	PHCC12C14SILIC	8015M	mg/kg	5.5	UJ	5.5	UJ	--
TPH-EFH w/ Silica Gel	EFH (C15-C20) w/ Silica Gel	PHCC15C20SILIC	8015M	mg/kg	5.5	UJ	5.5	UJ	--
TPH-EFH w/ Silica Gel	EFH (C21-C30) w/ Silica Gel	PHCC21C30SILIC	8015M	mg/kg	19	J	14	J	30.30
TPH-EFH w/ Silica Gel	EFH (C30-C40) w/ Silica Gel	PHCC30C40SILIC	8015M	mg/kg	21		14	J	40.00
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015M	mg/kg	1.2	U	1.2	U	--
VOC	1,1,1,2-Tetrachloroethane	630-20-6	8260B	µg/kg					--
VOC	1,1,1-Trichloroethane	71-55-6	8260B	µg/kg					--
VOC	1,1,2,2-Tetrachloroethane	79-34-5	8260B	µg/kg					--
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260B	µg/kg					--
VOC	1,1,2-Trichloroethane	79-00-5	8260B	µg/kg					--
VOC	1,1-Dichloroethane	75-34-3	8260B	µg/kg					--
VOC	1,1-Dichloroethene	75-35-4	8260B	µg/kg					--
VOC	1,1-Dichloropropene	563-58-6	8260B	µg/kg					--
VOC	1,2,3-Trichlorobenzene	87-61-6	8260B	µg/kg					--
VOC	1,2,3-Trichloropropane	96-18-4	8260B	µg/kg					--
VOC	1,2,4-Trichlorobenzene	120-82-1	8260B	µg/kg					--
VOC	1,2,4-Trimethylbenzene	95-63-6	8260B	µg/kg					--
VOC	1,2-Dibromo-3-chloropropane	96-12-8	8260B	µg/kg					--
VOC	1,2-Dibromoethane	106-93-4	8260B	µg/kg					--
VOC	1,2-Dichlorobenzene	95-50-1	8260B	µg/kg					--
VOC	1,2-Dichloroethane	107-06-2	8260B	µg/kg					--
VOC	1,2-Dichloropropane	78-87-5	8260B	µg/kg					--
VOC	1,3,5-Trimethylbenzene	108-67-8	8260B	µg/kg					--
VOC	1,3-Dichlorobenzene	541-73-1	8260B	µg/kg					--
VOC	1,3-Dichloropropane	142-28-9	8260B	µg/kg					--
VOC	1,4-Dichlorobenzene	106-46-7	8260B	µg/kg					--
VOC	1-Chlorohexane	544-10-5	8260B	µg/kg					--
VOC	2,2-Dichloropropane	594-20-7	8260B	µg/kg					--
VOC	2-Butanone (MEK)	78-93-3	8260B	µg/kg					--
VOC	2-Chloro-1,1,1-trifluoroethane	75-88-7	8260B	µg/kg					--
VOC	2-Chloroethyl Vinyl Ether	110-75-8	8260B	µg/kg					--
VOC	2-Chlorotoluene	95-49-8	8260B	µg/kg					--
VOC	2-Hexanone	591-78-6	8260B	µg/kg					--
VOC	2-Phenylbutane	135-98-8	8260B	µg/kg					--
VOC	4-Chlorotoluene	106-43-4	8260B	µg/kg					--
VOC	4-Methyl-2-pentanone (MIBK)	108-10-1	8260B	µg/kg					--
VOC	Acetone	67-64-1	8260B	µg/kg					--
VOC	Acrolein	107-02-8	8260B	µg/kg					--
VOC	Acrylonitrile	107-13-1	8260B	µg/kg					--
VOC	Benzene	71-43-2	8260B	µg/kg					--
VOC	Bromobenzene	108-86-1	8260B	µg/kg					--
VOC	Bromochloromethane	74-97-5	8260B	µg/kg					--
VOC	Bromodichloromethane	75-27-4	8260B	µg/kg					--
VOC	Bromoform	75-25-2	8260B	µg/kg					--
VOC	Bromomethane	74-83-9	8260B	µg/kg					--
VOC	Carbon Disulfide	75-15-0	8260B	µg/kg					--
VOC	Carbon Tetrachloride	56-23-5	8260B	µg/kg					--
VOC	Chlorobenzene	108-90-7	8260B	µg/kg					--
VOC	Chloroethane	75-00-3	8260B	µg/kg					--
VOC	Chloroform	67-66-3	8260B	µg/kg					--
VOC	Chloromethane	74-87-3	8260B	µg/kg					--
VOC	Chlorotrifluoroethylene	79-38-9	8260B	µg/kg					--
VOC	cis-1,2-Dichloroethene	156-59-2	8260B	µg/kg					--
VOC	cis-1,3-Dichloropropene	10061-01-5	8260B	µg/kg					--
VOC	Cymene	99-87-6	8260B	µg/kg					--
VOC	Di isopropyl Ether	108-20-3	8260B	µg/kg					--
VOC	Dibromochloromethane	124-48-1	8260B	µg/kg					--
VOC	Dibromomethane	74-95-3	8260B	µg/kg					--
VOC	Dichlorodifluoromethane	75-71-8	8260B	µg/kg					--

Table C-5
Field Duplicates for Go-Back Samples

				Location	8_DG-630		8_DG-630		RPD
				Sample Name:	FDG2-SL-930-SA8-SB-4.0-5.0		FDG2-SL-630-SA8-SB-4.0-5.0		
				Sample Date	06/10/2014		06/10/2014		
				Start Depth:	4		4		
				End Depth:	5		5		
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
VOC	Ethylbenzene	100-41-4	8260B	µg/kg					--
VOC	Hexachloro-1,3-butadiene	87-68-3	8260B	µg/kg					--
VOC	Isopropylbenzene	98-82-8	8260B	µg/kg					--
VOC	m,p-Xylene	179601-23-1	8260B	µg/kg					--
VOC	Methyl Iodide	74-88-4	8260B	µg/kg					--
VOC	Methyl Tert-Butyl Ether	1634-04-4	8260B	µg/kg					--
VOC	Methylene Chloride	75-09-2	8260B	µg/kg					--
VOC	n-Butylbenzene	104-51-8	8260B	µg/kg					--
VOC	n-Propylbenzene	103-65-1	8260B	µg/kg					--
VOC	o-Xylene	95-47-6	8260B	µg/kg					--
VOC	Styrene	100-42-5	8260B	µg/kg					--
VOC	tert-Butyl ethyl ether	637-92-3	8260B	µg/kg					--
VOC	tert-Butylbenzene	98-06-6	8260B	µg/kg					--
VOC	Tertiary amyl methyl ether	994-05-8	8260B	µg/kg					--
VOC	Tertiary butyl alcohol	75-65-0	8260B	µg/kg					--
VOC	Tetrachloroethene	127-18-4	8260B	µg/kg					--
VOC	Toluene	108-88-3	8260B	µg/kg					--
VOC	trans-1,2-Dichloroethene	156-60-5	8260B	µg/kg					--
VOC	trans-1,3-Dichloropropene	10061-02-6	8260B	µg/kg					--
VOC	Trichloroethene	79-01-6	8260B	µg/kg					--
VOC	Trichlorofluoromethane	75-69-4	8260B	µg/kg					--
VOC	Vinyl Acetate	108-05-4	8260B	µg/kg					--
VOC	Vinyl Chloride	75-01-4	8260B	µg/kg					--

ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not caluculated when both field duplicate and normal samples are nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C-5
Field Duplicates for Go-Back Samples

				Location	5C_DG-749		5C_DG-749		RPD
				Sample Name:	FDG-SL-1049-SA5C-SB-0.0-0.5		FDG-SL-749-SA5C-SB-0.0-0.5		
				Sample Date	05/08/2014		05/08/2014		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
1,4-Dioxane	1,4-Dioxane	123-91-1	8260B SIM	µg/kg					--
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	24.2	J	572	J	183.76
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	2.75	J	29.6	J	166.00
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	0.483	J	2.47	J	134.58
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	0.202	J	3.04	J	175.08
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	0.133	J	0.945	J	150.65
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	0.758	J	22.1	J	186.74
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	0.272	J	1.11	J	121.27
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	0.567	J	8.42	J	174.76
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	5.22	UJ	5.2	UJ	--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	5.22	UJ	0.388	J	200.00
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	5.22	UJ	1.87	J	200.00
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	0.363	J	1.84	J	134.09
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	0.241	J	0.46	J	62.48
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.04	UJ	1.04	UJ	--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	1.04	UJ	0.15	J	200.00
Dioxins	OCDD	3268-87-9	1613B	ng/kg	161	J	3460	J	182.21
Dioxins	OCDF	39001-02-0	1613B	ng/kg	6.53	J	66.6	J	164.28
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--
Mercury	Mercury	7439-97-6	7471B	mg/kg	0.017	UJ	0.0139	J	200.00
Metals	Aluminum	7429-90-5	6010C	mg/kg	13800		13700		0.73
Metals	Antimony	7440-36-0	6010C	mg/kg	4.15	UJ	4.05	UJ	--
Metals	Arsenic	7440-38-2	6010C	mg/kg	4.95		5.7		14.08
Metals	Barium	7440-39-3	6010C	mg/kg	70.2		74.6		6.08
Metals	Beryllium	7440-41-7	6010C	mg/kg	0.562	J	0.572	J	1.76
Metals	Boron	7440-42-8	6010C	mg/kg	10.4	U	10.1	U	--
Metals	Cadmium	7440-43-9	6010C	mg/kg	1.04	U	1.01	U	--
Metals	Calcium	7440-70-2	6010C	mg/kg	5940	J	3330	J	56.31
Metals	Chromium	7440-47-3	6010C	mg/kg	17.1	J	16.7	J	2.37
Metals	Cobalt	7440-48-4	6010C	mg/kg	4.87		4.98		2.23
Metals	Copper	7440-50-8	6010C	mg/kg	10.6	J	11.8	J	10.71
Metals	Iron	7439-89-6	6010C	mg/kg	18100		19700		8.47
Metals	Lead	7439-92-1	6010C	mg/kg	7.07		8.82		22.03
Metals	Lithium	7439-93-2	6010C	mg/kg	20.9		22.7		8.26
Metals	Magnesium	7439-95-4	6010C	mg/kg	3830		4070		6.08
Metals	Manganese	7439-96-5	6010C	mg/kg	256	J	304	J	17.14
Metals	Molybdenum	7439-98-7	6010C	mg/kg	2.07	UJ	0.442	J	200.00
Metals	Nickel	7440-02-0	6010C	mg/kg	12.4		13.4		7.75
Metals	Phosphorus	7723-14-0	6010C	mg/kg	259	J	274	J	5.63
Metals	Potassium	7440-09-7	6010C	mg/kg	2160	J	2330	J	7.57
Metals	Selenium	7782-49-2	6020A	mg/kg	0.16	J	0.152	J	5.13
Metals	Silver	7440-22-4	6020A	mg/kg	0.0444	J	0.03	J	38.71
Metals	Sodium	7440-23-5	6010C	mg/kg	76.4	J	88.5	J	14.68
Metals	Strontium	7440-24-6	6020A	mg/kg	27.3	J	28.7	J	5.00
Metals	Thallium	7440-28-0	6020A	mg/kg	0.248		0.276		10.69
Metals	Tin	7440-31-5	6010C	mg/kg	10.4	U	10.1	U	--
Metals	Titanium	7440-32-6	6010C	mg/kg	925		972		4.96
Metals	Vanadium	7440-62-2	6010C	mg/kg	35.9		36.3		1.11
Metals	Zinc	7440-66-6	6010C	mg/kg	49.7	J	75.8	J	41.59
Metals	Zirconium	7440-67-7	6010C	mg/kg	3.13	J	3.11	J	0.64
Moisture Content	Moisture	MOIST	160.3M	%	5.5		5		9.52
PAHs	1-Methylnaphthalene	90-12-0	8270D SIM	µg/kg	1.1	J	4.1	J	115.38
PAHs	2-Methylnaphthalene	91-57-6	8270D SIM	µg/kg	1.7	UJ	3.4	J	200.00
PAHs	Acenaphthene	83-32-9	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Acenaphthylene	208-96-8	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Anthracene	120-12-7	8270D SIM	µg/kg	1.1	J	2	J	58.06
PAHs	Benzo(a)anthracene	56-55-3	8270D SIM	µg/kg	0.95	J	1.2	J	23.26
PAHs	Benzo(a)pyrene	50-32-8	8270D SIM	µg/kg	1.7	UJ	0.89	J	200.00
PAHs	Benzo(b)fluoranthene	205-99-2	8270D SIM	µg/kg	1.7	UJ	1	J	200.00
PAHs	Benzo(e)pyrene	192-97-2	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Benzo(k)fluoranthene	207-08-9	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	8270D SIM	µg/kg	9.8	J	12	J	20.18
PAHs	Butylbenzylphthalate	85-68-7	8270D SIM	µg/kg	7.1	J	6.8	J	4.32
PAHs	Chrysene	218-01-9	8270D SIM	µg/kg	0.46	J	1.3	J	95.45
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Diethylphthalate	84-66-2	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Dimethylphthalate	131-11-3	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Di-n-butylphthalate	84-74-2	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Di-n-octylphthalate	117-84-0	8270D SIM	µg/kg	19	UJ	9.3	J	200.00
PAHs	Fluoranthene	206-44-0	8270D SIM	µg/kg	0.8	J	1.9	J	81.48
PAHs	Fluorene	86-73-7	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Naphthalene	91-20-3	8270D SIM	µg/kg	1.7	UJ	1.1	J	200.00
PAHs	N-Nitrosodimethylamine	62-75-9	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Phenanthrene	85-01-8	8270D SIM	µg/kg	9.7		8.6	J	12.02
PAHs	Pyrene	129-00-0	8270D SIM	µg/kg	1.2	J	2.1	J	54.55
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg	18	U	18	U	--

Table C-5
Field Duplicates for Go-Back Samples

				Location	5C_DG-749		5C_DG-749		RPD
				Sample Name:	FDG-SL-1049-SA5C-SB-0.0-0.5		FDG-SL-749-SA5C-SB-0.0-0.5		
				Sample Date	05/08/2014		05/08/2014		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg	35	U	35	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg	35	U	35	U	--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg	35	U	35	U	--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg	5.3	U	5.3	U	--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane	57-74-9	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045M	pH	8.15		8.17		0.25
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015M	mg/kg					--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015M	mg/kg					--
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015M	mg/kg					--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015M	mg/kg					--
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015M	mg/kg					--
TPH-EFH w/ Silica Gel	EFH (C8-C11) w/ Silica Gel	PHCC8C11SILICA	8015M	mg/kg					--
TPH-EFH w/ Silica Gel	EFH (C12-C14) w/ Silica Gel	PHCC12C14SILIC/	8015M	mg/kg					--
TPH-EFH w/ Silica Gel	EFH (C15-C20) w/ Silica Gel	PHCC15C20SILIC/	8015M	mg/kg					--
TPH-EFH w/ Silica Gel	EFH (C21-C30) w/ Silica Gel	PHCC21C30SILIC/	8015M	mg/kg					--
TPH-EFH w/ Silica Gel	EFH (C30-C40) w/ Silica Gel	PHCC30C40SILIC/	8015M	mg/kg					--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015M	mg/kg					--
VOC	1,1,1,2-Tetrachloroethane	630-20-6	8260B	µg/kg					--
VOC	1,1,1-Trichloroethane	71-55-6	8260B	µg/kg					--
VOC	1,1,2,2-Tetrachloroethane	79-34-5	8260B	µg/kg					--
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260B	µg/kg					--
VOC	1,1,2-Trichloroethane	79-00-5	8260B	µg/kg					--
VOC	1,1-Dichloroethane	75-34-3	8260B	µg/kg					--
VOC	1,1-Dichloroethene	75-35-4	8260B	µg/kg					--
VOC	1,1-Dichloropropene	563-58-6	8260B	µg/kg					--
VOC	1,2,3-Trichlorobenzene	87-61-6	8260B	µg/kg					--
VOC	1,2,3-Trichloropropane	96-18-4	8260B	µg/kg					--
VOC	1,2,4-Trichlorobenzene	120-82-1	8260B	µg/kg					--
VOC	1,2,4-Trimethylbenzene	95-63-6	8260B	µg/kg					--
VOC	1,2-Dibromo-3-chloropropane	96-12-8	8260B	µg/kg					--
VOC	1,2-Dibromoethane	106-93-4	8260B	µg/kg					--
VOC	1,2-Dichlorobenzene	95-50-1	8260B	µg/kg					--
VOC	1,2-Dichloroethane	107-06-2	8260B	µg/kg					--
VOC	1,2-Dichloropropane	78-87-5	8260B	µg/kg					--
VOC	1,3,5-Trimethylbenzene	108-67-8	8260B	µg/kg					--
VOC	1,3-Dichlorobenzene	541-73-1	8260B	µg/kg					--
VOC	1,3-Dichloropropane	142-28-9	8260B	µg/kg					--
VOC	1,4-Dichlorobenzene	106-46-7	8260B	µg/kg					--
VOC	1-Chlorohexane	544-10-5	8260B	µg/kg					--
VOC	2,2-Dichloropropane	594-20-7	8260B	µg/kg					--
VOC	2-Butanone (MEK)	78-93-3	8260B	µg/kg					--
VOC	2-Chloro-1,1,1-trifluoroethane	75-88-7	8260B	µg/kg					--
VOC	2-Chloroethyl Vinyl Ether	110-75-8	8260B	µg/kg					--
VOC	2-Chlorotoluene	95-49-8	8260B	µg/kg					--
VOC	2-Hexanone	591-78-6	8260B	µg/kg					--
VOC	2-Phenylbutane	135-98-8	8260B	µg/kg					--
VOC	4-Chlorotoluene	106-43-4	8260B	µg/kg					--
VOC	4-Methyl-2-pentanone (MIBK)	108-10-1	8260B	µg/kg					--
VOC	Acetone	67-64-1	8260B	µg/kg					--
VOC	Acrolein	107-02-8	8260B	µg/kg					--
VOC	Acrylonitrile	107-13-1	8260B	µg/kg					--
VOC	Benzene	71-43-2	8260B	µg/kg					--
VOC	Bromobenzene	108-86-1	8260B	µg/kg					--
VOC	Bromochloromethane	74-97-5	8260B	µg/kg					--
VOC	Bromodichloromethane	75-27-4	8260B	µg/kg					--
VOC	Bromoform	75-25-2	8260B	µg/kg					--
VOC	Bromomethane	74-83-9	8260B	µg/kg					--
VOC	Carbon Disulfide	75-15-0	8260B	µg/kg					--
VOC	Carbon Tetrachloride	56-23-5	8260B	µg/kg					--
VOC	Chlorobenzene	108-90-7	8260B	µg/kg					--
VOC	Chloroethane	75-00-3	8260B	µg/kg					--
VOC	Chloroform	67-66-3	8260B	µg/kg					--
VOC	Chloromethane	74-87-3	8260B	µg/kg					--
VOC	Chlorotrifluoroethylene	79-38-9	8260B	µg/kg					--
VOC	cis-1,2-Dichloroethene	156-59-2	8260B	µg/kg					--
VOC	cis-1,3-Dichloropropene	10061-01-5	8260B	µg/kg					--
VOC	Cymene	99-87-6	8260B	µg/kg					--
VOC	Di isopropyl Ether	108-20-3	8260B	µg/kg					--
VOC	Dibromochloromethane	124-48-1	8260B	µg/kg					--
VOC	Dibromomethane	74-95-3	8260B	µg/kg					--
VOC	Dichlorodifluoromethane	75-71-8	8260B	µg/kg					--

Table C-5
Field Duplicates for Go-Back Samples

				Location	5C_DG-749		5C_DG-749		RPD
				Sample Name:	FDG-SL-1049-SA5C-SB-0.0-0.5		FDG-SL-749-SA5C-SB-0.0-0.5		
				Sample Date	05/08/2014		05/08/2014		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
VOC	Ethylbenzene	100-41-4	8260B	µg/kg					--
VOC	Hexachloro-1,3-butadiene	87-68-3	8260B	µg/kg					--
VOC	Isopropylbenzene	98-82-8	8260B	µg/kg					--
VOC	m,p-Xylene	179601-23-1	8260B	µg/kg					--
VOC	Methyl Iodide	74-88-4	8260B	µg/kg					--
VOC	Methyl Tert-Butyl Ether	1634-04-4	8260B	µg/kg					--
VOC	Methylene Chloride	75-09-2	8260B	µg/kg					--
VOC	n-Butylbenzene	104-51-8	8260B	µg/kg					--
VOC	n-Propylbenzene	103-65-1	8260B	µg/kg					--
VOC	o-Xylene	95-47-6	8260B	µg/kg					--
VOC	Styrene	100-42-5	8260B	µg/kg					--
VOC	tert-Butyl ethyl ether	637-92-3	8260B	µg/kg					--
VOC	tert-Butylbenzene	98-06-6	8260B	µg/kg					--
VOC	Tertiary amyl methyl ether	994-05-8	8260B	µg/kg					--
VOC	Tertiary butyl alcohol	75-65-0	8260B	µg/kg					--
VOC	Tetrachloroethene	127-18-4	8260B	µg/kg					--
VOC	Toluene	108-88-3	8260B	µg/kg					--
VOC	trans-1,2-Dichloroethene	156-60-5	8260B	µg/kg					--
VOC	trans-1,3-Dichloropropene	10061-02-6	8260B	µg/kg					--
VOC	Trichloroethene	79-01-6	8260B	µg/kg					--
VOC	Trichlorofluoromethane	75-69-4	8260B	µg/kg					--
VOC	Vinyl Acetate	108-05-4	8260B	µg/kg					--
VOC	Vinyl Chloride	75-01-4	8260B	µg/kg					--

ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not caluculated when both field duplicate and normal samples are nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C-5
Field Duplicates for Go-Back Samples

				Location	5A_DG-874		5A_DG-874		RPD
				Sample Name:	FDG2-SL-1174-SA5A-SB-4.0-5.0		FDG2-SL-874-SA5A-SB-4.0-5.0		
				Sample Date	05/20/2014		05/20/2014		
				Start Depth:	4		4		
				End Depth:	5		5		
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
1,4-Dioxane	1,4-Dioxane	123-91-1	8260B SIM	µg/kg					--
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	0.842	J	1.76	J	70.56
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	5.38	UJ	0.386	J	200.00
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	5.38	U	5.27	U	--
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	5.38	UJ	0.0535	J	200.00
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	5.38	U	5.27	U	--
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	0.297	J	0.394	J	28.08
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	5.38	U	5.27	U	--
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	0.392	J	0.447	J	13.11
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	0.37	J	0.422	J	13.13
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	5.38	U	5.27	U	--
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	5.38	U	5.27	U	--
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	5.38	U	5.27	U	--
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	5.38	U	5.27	U	--
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.08	U	1.05	U	--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	0.122	J	1.05	UJ	200.00
Dioxins	OCDD	3268-87-9	1613B	ng/kg	6.72	J	14	J	70.27
Dioxins	OCDF	39001-02-0	1613B	ng/kg	0.5	J	0.953	J	62.35
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--
Mercury	Mercury	7439-97-6	7471B	mg/kg	0.0124	J	0.0118	J	4.96
Metals	Aluminum	7429-90-5	6010C	mg/kg	14900		16200		8.36
Metals	Antimony	7440-36-0	6010C	mg/kg	4.18	UJ	4.3	UJ	--
Metals	Arsenic	7440-38-2	6010C	mg/kg	3.84	J	4.42		14.04
Metals	Barium	7440-39-3	6010C	mg/kg	106	J	247	J	79.89
Metals	Beryllium	7440-41-7	6010C	mg/kg	0.529	J	0.604	J	13.24
Metals	Boron	7440-42-8	6010C	mg/kg	4.55	J	7.29	J	46.28
Metals	Cadmium	7440-43-9	6010C	mg/kg	0.565	J	0.59	J	4.33
Metals	Calcium	7440-70-2	6010C	mg/kg	3440		3140		9.12
Metals	Chromium	7440-47-3	6010C	mg/kg	18.4	J	22	J	17.82
Metals	Cobalt	7440-48-4	6010C	mg/kg	5.58	J	5.61	J	0.54
Metals	Copper	7440-50-8	6010C	mg/kg	10		11		9.52
Metals	Iron	7439-89-6	6010C	mg/kg	20100		20000		0.50
Metals	Lead	7439-92-1	6010C	mg/kg	5.67		7.41		26.61
Metals	Lithium	7439-93-2	6010C	mg/kg	23.1		23.3		0.86
Metals	Magnesium	7439-95-4	6010C	mg/kg	4420		4540		2.68
Metals	Manganese	7439-96-5	6010C	mg/kg	367		313		15.88
Metals	Molybdenum	7439-98-7	6010C	mg/kg	0.277	J	0.474	J	52.46
Metals	Nickel	7440-02-0	6010C	mg/kg	11		11.9		7.86
Metals	Phosphorus	7723-14-0	6010C	mg/kg	412	J	400	J	2.96
Metals	Potassium	7440-09-7	6010C	mg/kg	3450		3470		0.58
Metals	Selenium	7782-49-2	6020A	mg/kg	0.161	J	0.148	J	8.41
Metals	Silver	7440-22-4	6020A	mg/kg	0.209	UJ	0.0297	J	200.00
Metals	Sodium	7440-23-5	6010C	mg/kg	104		119		13.45
Metals	Strontium	7440-24-6	6020A	mg/kg	21.4		24.5		13.51
Metals	Thallium	7440-28-0	6020A	mg/kg	0.289		0.275		4.96
Metals	Tin	7440-31-5	6010C	mg/kg	10.4	U	10.8	U	--
Metals	Titanium	7440-32-6	6010C	mg/kg	1100		1160		5.31
Metals	Vanadium	7440-62-2	6010C	mg/kg	34.8		37.5		7.47
Metals	Zinc	7440-66-6	6010C	mg/kg	57.4		60.5		5.26
Metals	Zirconium	7440-67-7	6010C	mg/kg	5.22	U	5.38	U	--
Moisture Content	Moisture	MOIST	160.3M	%	7.9		7		12.08
PAHs	1-Methylnaphthalene	90-12-0	8270D SIM	µg/kg	1.8	U	1.8	U	--
PAHs	2-Methylnaphthalene	91-57-6	8270D SIM	µg/kg	1.8	UJ	1	J	200.00
PAHs	Acenaphthene	83-32-9	8270D SIM	µg/kg	1.8	U	1.8	U	--
PAHs	Acenaphthylene	208-96-8	8270D SIM	µg/kg	1.8	U	1.8	U	--
PAHs	Anthracene	120-12-7	8270D SIM	µg/kg	1.8	U	1.8	U	--
PAHs	Benzo(a)anthracene	56-55-3	8270D SIM	µg/kg	1.8	U	1.8	U	--
PAHs	Benzo(a)pyrene	50-32-8	8270D SIM	µg/kg	1.8	U	1.8	U	--
PAHs	Benzo(b)fluoranthene	205-99-2	8270D SIM	µg/kg	0.93	J	1.2	J	25.35
PAHs	Benzo(e)pyrene	192-97-2	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270D SIM	µg/kg	1.8	U	1.8	U	--
PAHs	Benzo(k)fluoranthene	207-08-9	8270D SIM	µg/kg	1.8	U	1.8	U	--
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Butylbenzylphthalate	85-68-7	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Chrysene	218-01-9	8270D SIM	µg/kg	1.2	J	1.4	J	15.38
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270D SIM	µg/kg	1.8	U	1.8	U	--
PAHs	Diethylphthalate	84-66-2	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Dimethylphthalate	131-11-3	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Di-n-butylphthalate	84-74-2	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Di-n-octylphthalate	117-84-0	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Fluoranthene	206-44-0	8270D SIM	µg/kg	1.7	J	1.8		5.71
PAHs	Fluorene	86-73-7	8270D SIM	µg/kg	1.8	U	1.8	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270D SIM	µg/kg	1.8	U	1.8	U	--
PAHs	Naphthalene	91-20-3	8270D SIM	µg/kg	1.8	U	1.8	U	--
PAHs	N-Nitrosodimethylamine	62-75-9	8270D SIM	µg/kg	1.8	U	1.8	U	--
PAHs	Phenanthrene	85-01-8	8270D SIM	µg/kg	1.7	J	2.9	J	52.17
PAHs	Pyrene	129-00-0	8270D SIM	µg/kg	0.89	J	0.91	J	2.22
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg	18	U	18	U	--

Table C-5
Field Duplicates for Go-Back Samples

				Location	5A_DG-874		5A_DG-874		RPD
				Sample Name:	FDG2-SL-1174-SA5A-SB-4.0-5.0		FDG2-SL-874-SA5A-SB-4.0-5.0		
				Sample Date	05/20/2014		05/20/2014		
				Start Depth:	4		4		
				End Depth:	5		5		
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg	35	U	35	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg	35	U	35	U	--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg	35	U	35	U	--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane	57-74-9	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045M	pH	7.24		7		3.37
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015M	mg/kg	5.4	U	5.4	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015M	mg/kg	5.4	U	5.4	U	--
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015M	mg/kg	5.4	U	5.4	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015M	mg/kg	11		16	J	37.04
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015M	mg/kg	21		31	J	38.46
TPH-EFH w/ Silica Gel	EFH (C8-C11) w/ Silica Gel	PHCC8C11SILICA	8015M	mg/kg	5.4	U	5.4	U	--
TPH-EFH w/ Silica Gel	EFH (C12-C14) w/ Silica Gel	PHCC12C14SILIC/	8015M	mg/kg	5.4	U	5.4	U	--
TPH-EFH w/ Silica Gel	EFH (C15-C20) w/ Silica Gel	PHCC15C20SILIC/	8015M	mg/kg	5.4	U	5.4	U	--
TPH-EFH w/ Silica Gel	EFH (C21-C30) w/ Silica Gel	PHCC21C30SILIC/	8015M	mg/kg	5.4	U	5.4	U	--
TPH-EFH w/ Silica Gel	EFH (C30-C40) w/ Silica Gel	PHCC30C40SILIC/	8015M	mg/kg	11	U	11	U	--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015M	mg/kg	1	U	1	U	--
VOC	1,1,1,2-Tetrachloroethane	630-20-6	8260B	µg/kg					--
VOC	1,1,1-Trichloroethane	71-55-6	8260B	µg/kg					--
VOC	1,1,2,2-Tetrachloroethane	79-34-5	8260B	µg/kg					--
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260B	µg/kg					--
VOC	1,1,2-Trichloroethane	79-00-5	8260B	µg/kg					--
VOC	1,1-Dichloroethane	75-34-3	8260B	µg/kg					--
VOC	1,1-Dichloroethene	75-35-4	8260B	µg/kg					--
VOC	1,1-Dichloropropene	563-58-6	8260B	µg/kg					--
VOC	1,2,3-Trichlorobenzene	87-61-6	8260B	µg/kg					--
VOC	1,2,3-Trichloropropane	96-18-4	8260B	µg/kg					--
VOC	1,2,4-Trichlorobenzene	120-82-1	8260B	µg/kg					--
VOC	1,2,4-Trimethylbenzene	95-63-6	8260B	µg/kg					--
VOC	1,2-Dibromo-3-chloropropane	96-12-8	8260B	µg/kg					--
VOC	1,2-Dibromoethane	106-93-4	8260B	µg/kg					--
VOC	1,2-Dichlorobenzene	95-50-1	8260B	µg/kg					--
VOC	1,2-Dichloroethane	107-06-2	8260B	µg/kg					--
VOC	1,2-Dichloropropane	78-87-5	8260B	µg/kg					--
VOC	1,3,5-Trimethylbenzene	108-67-8	8260B	µg/kg					--
VOC	1,3-Dichlorobenzene	541-73-1	8260B	µg/kg					--
VOC	1,3-Dichloropropane	142-28-9	8260B	µg/kg					--
VOC	1,4-Dichlorobenzene	106-46-7	8260B	µg/kg					--
VOC	1-Chlorohexane	544-10-5	8260B	µg/kg					--
VOC	2,2-Dichloropropane	594-20-7	8260B	µg/kg					--
VOC	2-Butanone (MEK)	78-93-3	8260B	µg/kg					--
VOC	2-Chloro-1,1,1-trifluoroethane	75-88-7	8260B	µg/kg					--
VOC	2-Chloroethyl Vinyl Ether	110-75-8	8260B	µg/kg					--
VOC	2-Chlorotoluene	95-49-8	8260B	µg/kg					--
VOC	2-Hexanone	591-78-6	8260B	µg/kg					--
VOC	2-Phenylbutane	135-98-8	8260B	µg/kg					--
VOC	4-Chlorotoluene	106-43-4	8260B	µg/kg					--
VOC	4-Methyl-2-pentanone (MIBK)	108-10-1	8260B	µg/kg					--
VOC	Acetone	67-64-1	8260B	µg/kg					--
VOC	Acrolein	107-02-8	8260B	µg/kg					--
VOC	Acrylonitrile	107-13-1	8260B	µg/kg					--
VOC	Benzene	71-43-2	8260B	µg/kg					--
VOC	Bromobenzene	108-86-1	8260B	µg/kg					--
VOC	Bromochloromethane	74-97-5	8260B	µg/kg					--
VOC	Bromodichloromethane	75-27-4	8260B	µg/kg					--
VOC	Bromoform	75-25-2	8260B	µg/kg					--
VOC	Bromomethane	74-83-9	8260B	µg/kg					--
VOC	Carbon Disulfide	75-15-0	8260B	µg/kg					--
VOC	Carbon Tetrachloride	56-23-5	8260B	µg/kg					--
VOC	Chlorobenzene	108-90-7	8260B	µg/kg					--
VOC	Chloroethane	75-00-3	8260B	µg/kg					--
VOC	Chloroform	67-66-3	8260B	µg/kg					--
VOC	Chloromethane	74-87-3	8260B	µg/kg					--
VOC	Chlorotrifluoroethylene	79-38-9	8260B	µg/kg					--
VOC	cis-1,2-Dichloroethene	156-59-2	8260B	µg/kg					--
VOC	cis-1,3-Dichloropropene	10061-01-5	8260B	µg/kg					--
VOC	Cymene	99-87-6	8260B	µg/kg					--
VOC	Di isopropyl Ether	108-20-3	8260B	µg/kg					--
VOC	Dibromochloromethane	124-48-1	8260B	µg/kg					--
VOC	Dibromomethane	74-95-3	8260B	µg/kg					--
VOC	Dichlorodifluoromethane	75-71-8	8260B	µg/kg					--

Table C-5
Field Duplicates for Go-Back Samples

				Location	5A_DG-874		5A_DG-874		RPD
				Sample Name:	FDG2-SL-1174-SA5A-SB-4.0-5.0		FDG2-SL-874-SA5A-SB-4.0-5.0		
				Sample Date	05/20/2014		05/20/2014		
				Start Depth:	4		4		
				End Depth:	5		5		
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
VOC	Ethylbenzene	100-41-4	8260B	µg/kg					--
VOC	Hexachloro-1,3-butadiene	87-68-3	8260B	µg/kg					--
VOC	Isopropylbenzene	98-82-8	8260B	µg/kg					--
VOC	m,p-Xylene	179601-23-1	8260B	µg/kg					--
VOC	Methyl Iodide	74-88-4	8260B	µg/kg					--
VOC	Methyl Tert-Butyl Ether	1634-04-4	8260B	µg/kg					--
VOC	Methylene Chloride	75-09-2	8260B	µg/kg					--
VOC	n-Butylbenzene	104-51-8	8260B	µg/kg					--
VOC	n-Propylbenzene	103-65-1	8260B	µg/kg					--
VOC	o-Xylene	95-47-6	8260B	µg/kg					--
VOC	Styrene	100-42-5	8260B	µg/kg					--
VOC	tert-Butyl ethyl ether	637-92-3	8260B	µg/kg					--
VOC	tert-Butylbenzene	98-06-6	8260B	µg/kg					--
VOC	Tertiary amyl methyl ether	994-05-8	8260B	µg/kg					--
VOC	Tertiary butyl alcohol	75-65-0	8260B	µg/kg					--
VOC	Tetrachloroethene	127-18-4	8260B	µg/kg					--
VOC	Toluene	108-88-3	8260B	µg/kg					--
VOC	trans-1,2-Dichloroethene	156-60-5	8260B	µg/kg					--
VOC	trans-1,3-Dichloropropene	10061-02-6	8260B	µg/kg					--
VOC	Trichloroethene	79-01-6	8260B	µg/kg					--
VOC	Trichlorofluoromethane	75-69-4	8260B	µg/kg					--
VOC	Vinyl Acetate	108-05-4	8260B	µg/kg					--
VOC	Vinyl Chloride	75-01-4	8260B	µg/kg					--

ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not caluculated when both field duplicate and normal samples are nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C-5
Field Duplicates for Go-Back Samples

				Location	5A_DG-875		5A_DG-875		RPD
				Sample Name:	FDG2-SL-1175-SA5A-SB-2.0-3.0		FDG2-SL-875-SA5A-SB-2.0-3.0		
				Sample Date	06/16/2014		06/16/2014		
				Start Depth:	2		2		
				End Depth:	3		3		
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
1,4-Dioxane	1,4-Dioxane	123-91-1	8260B SIM	µg/kg	15	UJ	16	UJ	--
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	104	J	35.5	J	98.21
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	8.99	J	3.21	J	94.75
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	0.366	J	5.01	UJ	200.00
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	0.59	J	0.225	J	89.57
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	0.529	J	0.252	J	70.93
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	2.81	J	1.31	J	72.82
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	0.29	J	0.219	J	27.90
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	1.8	J	1.19	J	40.80
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	0.505	J	0.406	J	21.73
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	0.359	J	5.01	U	200.00
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	4.88	UJ	5.01	UJ	--
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	0.491	J	0.304	J	47.04
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	0.31	J	0.162	J	62.71
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	0.976	U	1	U	--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	0.172	J	0.102	J	51.09
Dioxins	OCDD	3268-87-9	1613B	ng/kg	2800	J	980	J	96.30
Dioxins	OCDF	39001-02-0	1613B	ng/kg	32	J	10	J	104.76
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--
Mercury	Mercury	7439-97-6	7471B	mg/kg	0.0197		0.0206		4.47
Metals	Aluminum	7429-90-5	6010C	mg/kg	14600		15500		5.98
Metals	Antimony	7440-36-0	6010C	mg/kg	3.98	UJ	4.03	UJ	--
Metals	Arsenic	7440-38-2	6010C	mg/kg	5.5		5.84		6.00
Metals	Barium	7440-39-3	6010C	mg/kg	96.4		107		10.42
Metals	Beryllium	7440-41-7	6010C	mg/kg	0.548	J	0.581	J	5.85
Metals	Boron	7440-42-8	6010C	mg/kg	9.95	U	10.1	U	--
Metals	Cadmium	7440-43-9	6010C	mg/kg	0.995	U	1.01	U	--
Metals	Calcium	7440-70-2	6010C	mg/kg	2090		2270		8.26
Metals	Chromium	7440-47-3	6010C	mg/kg	18.4		19.5		5.80
Metals	Cobalt	7440-48-4	6010C	mg/kg	4.77		4.91		2.89
Metals	Copper	7440-50-8	6010C	mg/kg	11.5		11.9		3.42
Metals	Iron	7439-89-6	6010C	mg/kg	18600		19400		4.21
Metals	Lead	7439-92-1	6010C	mg/kg	13.1	J	10.7	J	20.17
Metals	Lithium	7439-93-2	6010C	mg/kg	19.9		20.7		3.94
Metals	Magnesium	7439-95-4	6010C	mg/kg	4010		4140		3.19
Metals	Manganese	7439-96-5	6010C	mg/kg	306		321		4.78
Metals	Molybdenum	7439-98-7	6010C	mg/kg	1.99	U	2.02	U	--
Metals	Nickel	7440-02-0	6010C	mg/kg	11.7		13.1		11.29
Metals	Phosphorus	7723-14-0	6010C	mg/kg	467		436		6.87
Metals	Potassium	7440-09-7	6010C	mg/kg	3440		3650		5.92
Metals	Selenium	7782-49-2	6020A	mg/kg	0.268	J	0.272	J	1.48
Metals	Silver	7440-22-4	6020A	mg/kg	0.0426	J	0.0425	J	0.24
Metals	Sodium	7440-23-5	6010C	mg/kg	76.3	J	78.1	J	2.33
Metals	Strontium	7440-24-6	6020A	mg/kg	19.8	J	22.6	J	13.21
Metals	Thallium	7440-28-0	6020A	mg/kg	0.284		0.274		3.58
Metals	Tin	7440-31-5	6010C	mg/kg	9.95	U	10.1	U	--
Metals	Titanium	7440-32-6	6010C	mg/kg	1000		1070		6.76
Metals	Vanadium	7440-62-2	6010C	mg/kg	32.5		36		10.22
Metals	Zinc	7440-66-6	6010C	mg/kg	57.5		58.7		2.07
Metals	Zirconium	7440-67-7	6010C	mg/kg	4.97	U	5.04	U	--
Moisture Content	Moisture	MOIST	160.3M	%	2.4		2.7		11.76
PAHs	1-Methylnaphthalene	90-12-0	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	2-Methylnaphthalene	91-57-6	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Acenaphthene	83-32-9	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Acenaphthylene	208-96-8	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Anthracene	120-12-7	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Benzo(a)anthracene	56-55-3	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Benzo(a)pyrene	50-32-8	8270D SIM	µg/kg	0.81	J	0.84	J	3.64
PAHs	Benzo(b)fluoranthene	205-99-2	8270D SIM	µg/kg	2.4		2		18.18
PAHs	Benzo(e)pyrene	192-97-2	8270D SIM	µg/kg	17	U	17	U	--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270D SIM	µg/kg	0.68	J	1.7	UJ	200.00
PAHs	Benzo(k)fluoranthene	207-08-9	8270D SIM	µg/kg	1.3	J	1.5	J	14.29
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Butylbenzylphthalate	85-68-7	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Chrysene	218-01-9	8270D SIM	µg/kg	2.7	J	2.4	J	11.76
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Diethylphthalate	84-66-2	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Dimethylphthalate	131-11-3	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Di-n-butylphthalate	84-74-2	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Di-n-octylphthalate	117-84-0	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Fluoranthene	206-44-0	8270D SIM	µg/kg	1.3	J	1.4	J	7.41
PAHs	Fluorene	86-73-7	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Naphthalene	91-20-3	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	N-Nitrosodimethylamine	62-75-9	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Phenanthrene	85-01-8	8270D SIM	µg/kg	1.7	UJ	0.7	J	200.00
PAHs	Pyrene	129-00-0	8270D SIM	µg/kg	1	J	1.2	J	18.18
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg	17	U	17	U	--

Table C-5
Field Duplicates for Go-Back Samples

				Location	5A_DG-875		5A_DG-875		RPD
				Sample Name:	FDG2-SL-1175-SA5A-SB-2.0-3.0		FDG2-SL-875-SA5A-SB-2.0-3.0		
				Sample Date	06/16/2014		06/16/2014		
				Start Depth:	2		2		
				End Depth:	3		3		
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg	34	U	34	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg	34	U	34	U	--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg	34	U	34	U	--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane	57-74-9	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045M	pH	5.86		6.11		4.18
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015M	mg/kg	5.1	U	10	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015M	mg/kg	5.1	U	10	U	--
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015M	mg/kg	5.1	U	10	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015M	mg/kg	13	J	33	J	86.96
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015M	mg/kg	36	J	85	J	80.99
TPH-EFH w/ Silica Gel	EFH (C8-C11) w/ Silica Gel	PHCC8C11SILICA	8015M	mg/kg	5.1	U	5.1	U	--
TPH-EFH w/ Silica Gel	EFH (C12-C14) w/ Silica Gel	PHCC12C14SILIC/	8015M	mg/kg	5.1	U	5.1	U	--
TPH-EFH w/ Silica Gel	EFH (C15-C20) w/ Silica Gel	PHCC15C20SILIC/	8015M	mg/kg	5.1	U	5.1	U	--
TPH-EFH w/ Silica Gel	EFH (C21-C30) w/ Silica Gel	PHCC21C30SILIC/	8015M	mg/kg	3.6	J	26	J	151.35
TPH-EFH w/ Silica Gel	EFH (C30-C40) w/ Silica Gel	PHCC30C40SILIC/	8015M	mg/kg	14	J	67	J	130.86
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015M	mg/kg	1	U	1.1	U	--
VOC	1,1,1,2-Tetrachloroethane	630-20-6	8260B	µg/kg	5	U	5	U	--
VOC	1,1,1-Trichloroethane	71-55-6	8260B	µg/kg	5	U	5	U	--
VOC	1,1,2,2-Tetrachloroethane	79-34-5	8260B	µg/kg	5	U	5	U	--
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260B	µg/kg	5	U	5	U	--
VOC	1,1,2-Trichloroethane	79-00-5	8260B	µg/kg	5	U	5	U	--
VOC	1,1-Dichloroethane	75-34-3	8260B	µg/kg	5	U	5	U	--
VOC	1,1-Dichloroethene	75-35-4	8260B	µg/kg	5	U	5	U	--
VOC	1,1-Dichloropropene	563-58-6	8260B	µg/kg	5	U	5	U	--
VOC	1,2,3-Trichlorobenzene	87-61-6	8260B	µg/kg	5	U	5	U	--
VOC	1,2,3-Trichloropropane	96-18-4	8260B	µg/kg	5	U	5	U	--
VOC	1,2,4-Trichlorobenzene	120-82-1	8260B	µg/kg	5	U	5	U	--
VOC	1,2,4-Trimethylbenzene	95-63-6	8260B	µg/kg	5	U	5	U	--
VOC	1,2-Dibromo-3-chloropropane	96-12-8	8260B	µg/kg	5	U	5	U	--
VOC	1,2-Dibromoethane	106-93-4	8260B	µg/kg	5	U	5	U	--
VOC	1,2-Dichlorobenzene	95-50-1	8260B	µg/kg	5	U	5	U	--
VOC	1,2-Dichloroethane	107-06-2	8260B	µg/kg	5	U	5	U	--
VOC	1,2-Dichloropropane	78-87-5	8260B	µg/kg	5	U	5	U	--
VOC	1,3,5-Trimethylbenzene	108-67-8	8260B	µg/kg	5	U	5	U	--
VOC	1,3-Dichlorobenzene	541-73-1	8260B	µg/kg	5	U	5	U	--
VOC	1,3-Dichloropropane	142-28-9	8260B	µg/kg	5	U	5	U	--
VOC	1,4-Dichlorobenzene	106-46-7	8260B	µg/kg	5	U	5	U	--
VOC	1-Chlorohexane	544-10-5	8260B	µg/kg	5	U	5	U	--
VOC	2,2-Dichloropropane	594-20-7	8260B	µg/kg	5	U	5	U	--
VOC	2-Butanone (MEK)	78-93-3	8260B	µg/kg	10	U	10	U	--
VOC	2-Chloro-1,1,1-trifluoroethane	75-88-7	8260B	µg/kg	5	U	5	U	--
VOC	2-Chloroethyl Vinyl Ether	110-75-8	8260B	µg/kg	10	U	10	U	--
VOC	2-Chlorotoluene	95-49-8	8260B	µg/kg	5	U	5	U	--
VOC	2-Hexanone	591-78-6	8260B	µg/kg	10	U	10	U	--
VOC	2-Phenylbutane	135-98-8	8260B	µg/kg	5	U	5	U	--
VOC	4-Chlorotoluene	106-43-4	8260B	µg/kg	5	U	5	U	--
VOC	4-Methyl-2-pentanone (MIBK)	108-10-1	8260B	µg/kg	10	U	10	U	--
VOC	Acetone	67-64-1	8260B	µg/kg	21	U	21	U	--
VOC	Acrolein	107-02-8	8260B	µg/kg	100	U	100	U	--
VOC	Acrylonitrile	107-13-1	8260B	µg/kg	21	U	21	U	--
VOC	Benzene	71-43-2	8260B	µg/kg	5	U	5	U	--
VOC	Bromobenzene	108-86-1	8260B	µg/kg	5	U	5	U	--
VOC	Bromochloromethane	74-97-5	8260B	µg/kg	5	U	5	U	--
VOC	Bromodichloromethane	75-27-4	8260B	µg/kg	5	U	5	U	--
VOC	Bromoform	75-25-2	8260B	µg/kg	5	U	5	U	--
VOC	Bromomethane	74-83-9	8260B	µg/kg	5	UJ	5	UJ	--
VOC	Carbon Disulfide	75-15-0	8260B	µg/kg	5	U	5	U	--
VOC	Carbon Tetrachloride	56-23-5	8260B	µg/kg	5	U	5	U	--
VOC	Chlorobenzene	108-90-7	8260B	µg/kg	5	U	5	U	--
VOC	Chloroethane	75-00-3	8260B	µg/kg	5	UJ	5	UJ	--
VOC	Chloroform	67-66-3	8260B	µg/kg	5	U	5	U	--
VOC	Chloromethane	74-87-3	8260B	µg/kg	5	U	5	U	--
VOC	Chlorotrifluoroethylene	79-38-9	8260B	µg/kg	5	U	5	U	--
VOC	cis-1,2-Dichloroethene	156-59-2	8260B	µg/kg	5	U	5	U	--
VOC	cis-1,3-Dichloropropene	10061-01-5	8260B	µg/kg	5	U	5	U	--
VOC	Cymene	99-87-6	8260B	µg/kg	5	U	5	U	--
VOC	Di isopropyl Ether	108-20-3	8260B	µg/kg	5	U	5	U	--
VOC	Dibromochloromethane	124-48-1	8260B	µg/kg	5	U	5	U	--
VOC	Dibromomethane	74-95-3	8260B	µg/kg	5	U	5	U	--
VOC	Dichlorodifluoromethane	75-71-8	8260B	µg/kg	5	UJ	5	UJ	--

Table C-5
Field Duplicates for Go-Back Samples

				Location	5A_DG-875		5A_DG-875		RPD
				Sample Name:	FDG2-SL-1175-SA5A-SB-2.0-3.0		FDG2-SL-875-SA5A-SB-2.0-3.0		
				Sample Date	06/16/2014		06/16/2014		
				Start Depth:	2		2		
				End Depth:	3		3		
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
VOC	Ethylbenzene	100-41-4	8260B	µg/kg	5	U	5	U	--
VOC	Hexachloro-1,3-butadiene	87-68-3	8260B	µg/kg	5	U	5	U	--
VOC	Isopropylbenzene	98-82-8	8260B	µg/kg	5	U	5	U	--
VOC	m,p-Xylene	179601-23-1	8260B	µg/kg	5	U	5	U	--
VOC	Methyl Iodide	74-88-4	8260B	µg/kg	5	U	5	U	--
VOC	Methyl Tert-Butyl Ether	1634-04-4	8260B	µg/kg	5	U	5	U	--
VOC	Methylene Chloride	75-09-2	8260B	µg/kg	5	U	5	U	--
VOC	n-Butylbenzene	104-51-8	8260B	µg/kg	5	U	5	U	--
VOC	n-Propylbenzene	103-65-1	8260B	µg/kg	5	U	5	U	--
VOC	o-Xylene	95-47-6	8260B	µg/kg	5	U	5	U	--
VOC	Styrene	100-42-5	8260B	µg/kg	5	U	5	U	--
VOC	tert-Butyl ethyl ether	637-92-3	8260B	µg/kg	5	U	5	U	--
VOC	tert-Butylbenzene	98-06-6	8260B	µg/kg	5	U	5	U	--
VOC	Tertiary amyl methyl ether	994-05-8	8260B	µg/kg	5	U	5	U	--
VOC	Tertiary butyl alcohol	75-65-0	8260B	µg/kg	52	U	51	U	--
VOC	Tetrachloroethene	127-18-4	8260B	µg/kg	5	U	5	U	--
VOC	Toluene	108-88-3	8260B	µg/kg	5	U	5	U	--
VOC	trans-1,2-Dichloroethene	156-60-5	8260B	µg/kg	5	U	5	U	--
VOC	trans-1,3-Dichloropropene	10061-02-6	8260B	µg/kg	5	U	5	U	--
VOC	Trichloroethene	79-01-6	8260B	µg/kg	5	U	5	U	--
VOC	Trichlorofluoromethane	75-69-4	8260B	µg/kg	5	U	5	U	--
VOC	Vinyl Acetate	108-05-4	8260B	µg/kg	10	U	10	UJ	--
VOC	Vinyl Chloride	75-01-4	8260B	µg/kg	5	U	5	U	--

ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not caluculated when both field duplicate and normal samples are nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C-6
Field Duplicates for Trench Samples

				Location	8_DG-548		8_DG-548		RPD
				Sample Name:	SL-848-SA8-TR-5.0		SL-548-SA8-TR-5.0		
				Sample Date	05/19/2014		05/19/2014		
				Start Depth:	5		5		
				End Depth:					
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	5.59	U	5.77	U	--
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	5.59	UJ	5.77	UJ	--
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	5.59	U	5.77	U	--
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	0.0245	J	0.031	J	23.42
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	5.59	UJ	5.77	UJ	--
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	5.59	UJ	5.77	UJ	--
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	5.59	UJ	5.77	UJ	--
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	5.59	U	5.77	U	--
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	5.59	U	5.77	U	--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	5.59	UJ	5.77	UJ	--
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	5.59	UJ	0.0232	J	200.00
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	5.59	UJ	5.77	UJ	--
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	5.59	U	5.77	U	--
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.12	U	1.15	U	--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	1.12	U	1.15	U	--
Dioxins	OCDD	3268-87-9	1613B	ng/kg	11.2	U	11.5	U	--
Dioxins	OCDF	39001-02-0	1613B	ng/kg	11.2	UJ	11.5	UJ	--
Energetics	1,3,5-Trinitrobenzene	99-35-4	8330A	µg/kg					--
Energetics	2,4,6-Trinitrotoluene	118-96-7	8330A	µg/kg					--
Energetics	2,4-Diamino-6-nitrotoluene	6629-29-4	8330A	µg/kg					--
Energetics	2,4-Dinitrotoluene	121-14-2	8330A	µg/kg					--
Energetics	2,6-Diamino-4-nitrotoluene	59229-75-3	8330A	µg/kg					--
Energetics	2,6-Dinitrotoluene	606-20-2	8330A	µg/kg					--
Energetics	2-Amino-4,6-Dinitrotoluene	35572-78-2	8330A	µg/kg					--
Energetics	2-Nitrotoluene	88-72-2	8330A	µg/kg					--
Energetics	3-Nitrotoluene	99-08-1	8330A	µg/kg					--
Energetics	4-Amino-2,6-Dinitrotoluene	19406-51-0	8330A	µg/kg					--
Energetics	4-Nitrotoluene	99-99-0	8330A	µg/kg					--
Energetics	HMX	2691-41-0	8330A	µg/kg					--
Energetics	M-Dinitrobenzene	99-65-0	8330A	µg/kg					--
Energetics	Nitrobenzene	98-95-3	8330A	µg/kg					--
Energetics	Nitroglycerin	55-63-0	8330A	µg/kg					--
Energetics	PETN	78-11-5	8330A	µg/kg					--
Energetics	RDX	121-82-4	8330A	µg/kg					--
Energetics	Tetryl	479-45-8	8330A	µg/kg					--
Glycols	Diethylene Glycol	111-46-6	8015B	mg/kg					--
Glycols	Ethylene Glycol	107-21-1	8015B	mg/kg					--
Glycols	Propylene Glycol	57-55-6	8015B	mg/kg					--
Glycols	Triethylene Glycol	112-27-6	8015B	mg/kg					--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg					--
Mercury	Mercury	7439-97-6	7471B	mg/kg	0.0125	J	0.0127	J	1.59
Metals	Aluminum	7429-90-5	6010C	mg/kg	27300		29100		6.38
Metals	Antimony	7440-36-0	6010C	mg/kg	4.38	UJ	4.53	UJ	--
Metals	Arsenic	7440-38-2	6010C	mg/kg	2.99	J	2.92	J	2.37
Metals	Barium	7440-39-3	6010C	mg/kg	112		123		9.36
Metals	Beryllium	7440-41-7	6010C	mg/kg	0.873	J	1	J	13.56
Metals	Boron	7440-42-8	6010C	mg/kg	12.9		12.6		2.35
Metals	Cadmium	7440-43-9	6010C	mg/kg	1.09	UJ	1.13	UJ	--
Metals	Calcium	7440-70-2	6010C	mg/kg	46300	J	18000	J	88.02
Metals	Chromium	7440-47-3	6010C	mg/kg	33		35.4		7.02
Metals	Cobalt	7440-48-4	6010C	mg/kg	7.31	J	7.01	J	4.19
Metals	Copper	7440-50-8	6010C	mg/kg	17.6		19.1		8.17
Metals	Iron	7439-89-6	6010C	mg/kg	29300		31900		8.50
Metals	Lead	7439-92-1	6010C	mg/kg	11.3	J	13.1	J	14.75
Metals	Lithium	7439-93-2	6010C	mg/kg	24.5		26.2		6.71
Metals	Magnesium	7439-95-4	6010C	mg/kg	6420		7090		9.92
Metals	Manganese	7439-96-5	6010C	mg/kg	260	J	261	J	0.38
Metals	Molybdenum	7439-98-7	6010C	mg/kg	2.19	U	2.27	U	--
Metals	Nickel	7440-02-0	6010C	mg/kg	15.5	J	17.1	J	9.82
Metals	Phosphorus	7723-14-0	6010C	mg/kg	239		240		0.42
Metals	Potassium	7440-09-7	6010C	mg/kg	2600	J	2740	J	5.24
Metals	Selenium	7782-49-2	6020A	mg/kg	0.438	U	0.453	U	--
Metals	Silver	7440-22-4	6020A	mg/kg	0.0509	J	0.0496	J	2.59
Metals	Sodium	7440-23-5	6010C	mg/kg	154		163		5.68
Metals	Strontium	7440-24-6	6020A	mg/kg	53.9		47.7		12.20
Metals	Thallium	7440-28-0	6020A	mg/kg	0.322		0.316		1.88
Metals	Tin	7440-31-5	6010C	mg/kg	10.9	U	11.3	U	--
Metals	Titanium	7440-32-6	6010C	mg/kg	1020		1020		0.00
Metals	Vanadium	7440-62-2	6010C	mg/kg	57.9		61.7		6.35
Metals	Zinc	7440-66-6	6010C	mg/kg	58.8		64.4		9.09
Metals	Zirconium	7440-67-7	6010C	mg/kg	5.6		6.04		7.56
Moisture Content	Moisture	MOIST	160.3M	%	12.1		13.5		10.94
PAHs	1-Methylnaphthalene	90-12-0	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	2-Methylnaphthalene	91-57-6	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Acenaphthene	83-32-9	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Acenaphthylene	208-96-8	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Anthracene	120-12-7	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Benzo(a)anthracene	56-55-3	8270D	µg/kg					--
PAHs	Benzo(a)anthracene	56-55-3	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Benzo(a)pyrene	50-32-8	8270D	µg/kg					--
PAHs	Benzo(a)pyrene	50-32-8	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Benzo(b)fluoranthene	205-99-2	8270D	µg/kg					--
PAHs	Benzo(b)fluoranthene	205-99-2	8270D SIM	µg/kg	1.9	UJ	1.9	UJ	--

Table C-6
Field Duplicates for Trench Samples

				Location	8_DG-548		8_DG-548		RPD
				Sample Name:	SL-848-SA8-TR-5.0		SL-548-SA8-TR-5.0		
				Sample Date	05/19/2014		05/19/2014		
				Start Depth:	5		5		
				End Depth:					
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PAHs	Benzo(e)pyrene	192-97-2	8270D SIM	µg/kg	19	U	20	U	--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Benzo(k)fluoranthene	207-08-9	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	8270D SIM	µg/kg	20	U	21	U	--
PAHs	Butylbenzylphthalate	85-68-7	8270D SIM	µg/kg	20	U	21	U	--
PAHs	Chrysene	218-01-9	8270D	µg/kg					--
PAHs	Chrysene	218-01-9	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Diethylphthalate	84-66-2	8270D SIM	µg/kg	20	U	21	U	--
PAHs	Dimethylphthalate	131-11-3	8270D SIM	µg/kg	20	U	21	U	--
PAHs	Di-n-butylphthalate	84-74-2	8270D SIM	µg/kg	20	U	21	U	--
PAHs	Di-n-octylphthalate	117-84-0	8270D SIM	µg/kg	20	U	21	U	--
PAHs	Fluoranthene	206-44-0	8270D	µg/kg					--
PAHs	Fluoranthene	206-44-0	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Fluorene	86-73-7	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Naphthalene	91-20-3	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	N-Nitrosodimethylamine	62-75-9	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Phenanthrene	85-01-8	8270D	µg/kg					--
PAHs	Phenanthrene	85-01-8	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Pyrene	129-00-0	8270D	µg/kg					--
PAHs	Pyrene	129-00-0	8270D SIM	µg/kg	1.9	U	1.9	U	--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg	19	U	20	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg	19	U	20	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg	19	U	20	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg	19	U	20	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg	19	U	20	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg	19	U	20	U	--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg	19	U	20	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg	19	U	20	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg	19	U	20	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg	38	U	38	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg	38	U	38	U	--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg	38	U	38	U	--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane	57-74-9	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045M	pH	8.11		8.19		0.98
SVOC	1,1'-Biphenyl	92-52-4	8270D	µg/kg					--
SVOC	1,2,4-Trichlorobenzene	120-82-1	8270D	µg/kg					--
SVOC	1,2-Dichlorobenzene	95-50-1	8270D	µg/kg					--
SVOC	1,2-Diphenylhydrazine	122-66-7	8270D	µg/kg					--
SVOC	1,3-Dichlorobenzene	541-73-1	8270D	µg/kg					--
SVOC	1,4-Dichlorobenzene	106-46-7	8270D	µg/kg					--
SVOC	2,4,5-Trichlorophenol	95-95-4	8270D	µg/kg					--
SVOC	2,4,6-Trichlorophenol	88-06-2	8270D	µg/kg					--
SVOC	2,4-Dichlorophenol	120-83-2	8270D	µg/kg					--
SVOC	2,4-Dimethylphenol	105-67-9	8270D	µg/kg					--
SVOC	2,4-Dinitrophenol	51-28-5	8270D	µg/kg					--
SVOC	2,6-Dichlorophenol	87-65-0	8270D	µg/kg					--
SVOC	2-Chloronaphthalene	91-58-7	8270D	µg/kg					--
SVOC	2-Chlorophenol	95-57-8	8270D	µg/kg					--
SVOC	2-Methylphenol	95-48-7	8270D	µg/kg					--
SVOC	2-Nitroaniline	88-74-4	8270D	µg/kg					--
SVOC	2-Nitrophenol	88-75-5	8270D	µg/kg					--
SVOC	3,3'-Dichlorobenzidine	91-94-1	8270D	µg/kg					--
SVOC	3,5-Dimethylphenol	108-68-9	8270D	µg/kg					--
SVOC	3-Nitroaniline	99-09-2	8270D	µg/kg					--
SVOC	4,6-Dinitro-2-methylphenol	534-52-1	8270D	µg/kg					--
SVOC	4-Bromophenyl-phenylether	101-55-3	8270D	µg/kg					--
SVOC	4-Chloro-3-methylphenol	59-50-7	8270D	µg/kg					--
SVOC	4-Chloroaniline	106-47-8	8270D	µg/kg					--
SVOC	4-Chlorophenyl-phenylether	7005-72-3	8270D	µg/kg					--
SVOC	4-Methylphenol	106-44-5	8270D	µg/kg					--
SVOC	4-Nitroaniline	100-01-6	8270D	µg/kg					--
SVOC	4-Nitrophenol	100-02-7	8270D	µg/kg					--
SVOC	Aniline	62-53-3	8270D	µg/kg					--
SVOC	Benzidine	92-87-5	8270D	µg/kg					--
SVOC	Benzo(a)anthracene	56-55-3	8270D	µg/kg					--
SVOC	Benzo(a)pyrene	50-32-8	8270D	µg/kg					--
SVOC	Benzo(b)fluoranthene	205-99-2	8270D	µg/kg					--
SVOC	Benzoic Acid	65-85-0	8270D	µg/kg					--
SVOC	Benzyl Alcohol	100-51-6	8270D	µg/kg					--
SVOC	bis(2-chloroethoxy)methane	111-91-1	8270D	µg/kg					--
SVOC	bis(2-chloroethyl) ether	111-44-4	8270D	µg/kg					--

Table C-6
Field Duplicates for Trench Samples

				Location	8_DG-548		8_DG-548		RPD
				Sample Name:	SL-848-SA8-TR-5.0		SL-548-SA8-TR-5.0		
				Sample Date	05/19/2014		05/19/2014		
				Start Depth:	5		5		
				End Depth:					
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
SVOC	bis(2-chloroisopropyl) ether	39638-32-9	8270D	µg/kg					--
SVOC	Carbazole	86-74-8	8270D	µg/kg					--
SVOC	Chrysene	218-01-9	8270D	µg/kg					--
SVOC	Dibenzofuran	132-64-9	8270D	µg/kg					--
SVOC	Diphenylamine	NDPA122-39-4	8270D	µg/kg					--
SVOC	Fluoranthene	206-44-0	8270D	µg/kg					--
SVOC	Hexachlorobenzene	118-74-1	8270D	µg/kg					--
SVOC	Hexachlorobutadiene	87-68-3	8270D	µg/kg					--
SVOC	Hexachlorocyclopentadiene	77-47-4	8270D	µg/kg					--
SVOC	Hexachloroethane	67-72-1	8270D	µg/kg					--
SVOC	Isophorone	78-59-1	8270D	µg/kg					--
SVOC	Nitrobenzene	98-95-3	8270D	µg/kg					--
SVOC	N-Nitroso-di-n-propylamine	621-64-7	8270D	µg/kg					--
SVOC	N-Nitrosodiphenylamine	86-30-6	8270D	µg/kg					--
SVOC	Pentachlorophenol	87-86-5	8270D	µg/kg					--
SVOC	Phenanthrene	85-01-8	8270D	µg/kg					--
SVOC	Phenol	108-95-2	8270D	µg/kg					--
SVOC	Pyrene	129-00-0	8270D	µg/kg					--
SVOC	Pyridine	110-86-1	8270D	µg/kg					--
Terphenyls	m-Terphenyl	92-06-8	8015B	mg/kg					--
Terphenyls	o-Terphenyl	84-15-1	8015B	mg/kg					--
Terphenyls	p-Terphenyl	92-94-4	8015B	mg/kg					--
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015M	mg/kg	5.7	U	5.8	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015M	mg/kg	5.7	U	5.8	U	--
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015M	mg/kg	5.7	U	5.8	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015M	mg/kg	2.9	J	5.8	UJ	200.00
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015M	mg/kg	15	J	12	UJ	200.00
TPH-EFH w/ Silica Gel	EFH (C8-C11) w/ Silica Gel	PHCC8C11SILICA	8015M	mg/kg	5.7	UJ	5.8	UJ	--
TPH-EFH w/ Silica Gel	EFH (C12-C14) w/ Silica Gel	PHCC12C14SILICA	8015M	mg/kg	5.7	UJ	5.8	UJ	--
TPH-EFH w/ Silica Gel	EFH (C15-C20) w/ Silica Gel	PHCC15C20SILICA	8015M	mg/kg	5.7	UJ	5.8	UJ	--
TPH-EFH w/ Silica Gel	EFH (C21-C30) w/ Silica Gel	PHCC21C30SILICA	8015M	mg/kg	5.7	UJ	5.8	UJ	--
TPH-EFH w/ Silica Gel	EFH (C30-C40) w/ Silica Gel	PHCC30C40SILICA	8015M	mg/kg	11	UJ	12	UJ	--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015M	mg/kg	1	U	1.1	U	--

ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not caluculated when both field duplicate and normal samples are nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C-6
Field Duplicates for Trench Samples

				Location	5A_DG-587		5A_DG-587		RPD
				Sample Name:	SL-887-SA5A-TR-5.5		SL-587-SA5A-TR-5.5		
				Sample Date	05/22/2014		05/22/2014		
				Start Depth:	5.5		5.5		
				End Depth:					
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	10.3	J	17.4	J	51.26
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	2.45	J	3.75	J	41.94
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	0.4	J	0.592	J	38.71
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	5.53	U	5.4	U	--
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	5.53	UJ	0.397	J	200.00
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	0.341	J	0.42	J	20.76
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	0.249	J	0.255	J	2.38
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	5.53	U	5.4	U	--
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	5.53	U	5.4	U	--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	5.53	U	5.4	U	--
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	5.53	U	5.4	U	--
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	5.53	U	0.331	J	200.00
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	5.53	U	5.4	U	--
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.11	U	1.08	U	--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	1.11	U	1.08	U	--
Dioxins	OCDD	3268-87-9	1613B	ng/kg	175	J	301	J	52.94
Dioxins	OCDF	39001-02-0	1613B	ng/kg	5.35	J	8.04	J	40.18
Energetics	1,3,5-Trinitrobenzene	99-35-4	8330A	µg/kg					--
Energetics	2,4,6-Trinitrotoluene	118-96-7	8330A	µg/kg					--
Energetics	2,4-Diamino-6-nitrotoluene	6629-29-4	8330A	µg/kg					--
Energetics	2,4-Dinitrotoluene	121-14-2	8330A	µg/kg					--
Energetics	2,6-Diamino-4-nitrotoluene	59229-75-3	8330A	µg/kg					--
Energetics	2,6-Dinitrotoluene	606-20-2	8330A	µg/kg					--
Energetics	2-Amino-4,6-Dinitrotoluene	35572-78-2	8330A	µg/kg					--
Energetics	2-Nitrotoluene	88-72-2	8330A	µg/kg					--
Energetics	3-Nitrotoluene	99-08-1	8330A	µg/kg					--
Energetics	4-Amino-2,6-Dinitrotoluene	19406-51-0	8330A	µg/kg					--
Energetics	4-Nitrotoluene	99-99-0	8330A	µg/kg					--
Energetics	HMX	2691-41-0	8330A	µg/kg					--
Energetics	M-Dinitrobenzene	99-65-0	8330A	µg/kg					--
Energetics	Nitrobenzene	98-95-3	8330A	µg/kg					--
Energetics	Nitroglycerin	55-63-0	8330A	µg/kg					--
Energetics	PETN	78-11-5	8330A	µg/kg					--
Energetics	RDX	121-82-4	8330A	µg/kg					--
Energetics	Tetryl	479-45-8	8330A	µg/kg					--
Glycols	Diethylene Glycol	111-46-6	8015B	mg/kg					--
Glycols	Ethylene Glycol	107-21-1	8015B	mg/kg					--
Glycols	Propylene Glycol	57-55-6	8015B	mg/kg					--
Glycols	Triethylene Glycol	112-27-6	8015B	mg/kg					--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg					--
Mercury	Mercury	7439-97-6	7471B	mg/kg	0.023	J	0.0123	J	60.62
Metals	Aluminum	7429-90-5	6010C	mg/kg	22000	J	19600	J	11.54
Metals	Antimony	7440-36-0	6010C	mg/kg	4.36	U	4.32	U	--
Metals	Arsenic	7440-38-2	6010C	mg/kg	5.26		4.32		19.62
Metals	Barium	7440-39-3	6010C	mg/kg	98		94		4.17
Metals	Beryllium	7440-41-7	6010C	mg/kg	0.948	J	0.836	J	12.56
Metals	Boron	7440-42-8	6010C	mg/kg	10.9	U	10.8	U	--
Metals	Cadmium	7440-43-9	6010C	mg/kg	0.262	J	0.193	J	30.33
Metals	Calcium	7440-70-2	6010C	mg/kg	2810	J	2560	J	9.31
Metals	Chromium	7440-47-3	6010C	mg/kg	23		20		13.95
Metals	Cobalt	7440-48-4	6010C	mg/kg	4.6	J	4.69	J	1.94
Metals	Copper	7440-50-8	6010C	mg/kg	9.48		7.98		17.18
Metals	Iron	7439-89-6	6010C	mg/kg	23500	J	22900	J	2.59
Metals	Lead	7439-92-1	6010C	mg/kg	6.55		5.45		18.33
Metals	Lithium	7439-93-2	6010C	mg/kg	28.1		26.3		6.62
Metals	Magnesium	7439-95-4	6010C	mg/kg	4300	J	4210	J	2.12
Metals	Manganese	7439-96-5	6010C	mg/kg	228	J	261	J	13.50
Metals	Molybdenum	7439-98-7	6010C	mg/kg	0.472	J	0.599	J	23.72
Metals	Nickel	7440-02-0	6010C	mg/kg	11.7		10.7		8.93
Metals	Phosphorus	7723-14-0	6010C	mg/kg	258		226		13.22
Metals	Potassium	7440-09-7	6010C	mg/kg	2240		2190		2.26
Metals	Selenium	7782-49-2	6020A	mg/kg	0.238	J	0.209	J	12.98
Metals	Silver	7440-22-4	6020A	mg/kg	0.0434	J	0.0419	J	3.52
Metals	Sodium	7440-23-5	6010C	mg/kg	159		147		7.84
Metals	Strontium	7440-24-6	6020A	mg/kg	21.9		21.4		2.31
Metals	Thallium	7440-28-0	6020A	mg/kg	0.24		0.242		0.83
Metals	Tin	7440-31-5	6010C	mg/kg	10.9	U	10.8	U	--
Metals	Titanium	7440-32-6	6010C	mg/kg	1180	J	1140	J	3.45
Metals	Vanadium	7440-62-2	6010C	mg/kg	44.1		39.9		10.00
Metals	Zinc	7440-66-6	6010C	mg/kg	46.4	J	45.8	J	1.30
Metals	Zirconium	7440-67-7	6010C	mg/kg	5.45	U	5.4	U	--
Moisture Content	Moisture	MOIST	160.3M	%	11		10.1		8.53
PAHs	1-Methylnaphthalene	90-12-0	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	2-Methylnaphthalene	91-57-6	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Acenaphthene	83-32-9	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Acenaphthylene	208-96-8	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Anthracene	120-12-7	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Benzo(a)anthracene	56-55-3	8270D	µg/kg					--
PAHs	Benzo(a)anthracene	56-55-3	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Benzo(a)pyrene	50-32-8	8270D	µg/kg					--
PAHs	Benzo(a)pyrene	50-32-8	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Benzo(b)fluoranthene	205-99-2	8270D	µg/kg					--
PAHs	Benzo(b)fluoranthene	205-99-2	8270D SIM	µg/kg	1.9	U	1.9	U	--

Table C-6
Field Duplicates for Trench Samples

				Location	5A_DG-587		5A_DG-587		RPD
				Sample Name:	SL-887-SA5A-TR-5.5		SL-587-SA5A-TR-5.5		
				Sample Date	05/22/2014		05/22/2014		
				Start Depth:	5.5		5.5		
				End Depth:					
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PAHs	Benzo(e)pyrene	192-97-2	8270D SIM	µg/kg	19	UJ	19	UJ	--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Benzo(k)fluoranthene	207-08-9	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	8270D SIM	µg/kg	20	U	20	U	--
PAHs	Butylbenzylphthalate	85-68-7	8270D SIM	µg/kg	20	U	20	U	--
PAHs	Chrysene	218-01-9	8270D	µg/kg					--
PAHs	Chrysene	218-01-9	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Diethylphthalate	84-66-2	8270D SIM	µg/kg	20	U	20	U	--
PAHs	Dimethylphthalate	131-11-3	8270D SIM	µg/kg	20	U	20	U	--
PAHs	Di-n-butylphthalate	84-74-2	8270D SIM	µg/kg	20	U	20	U	--
PAHs	Di-n-octylphthalate	117-84-0	8270D SIM	µg/kg	20	U	20	U	--
PAHs	Fluoranthene	206-44-0	8270D	µg/kg					--
PAHs	Fluoranthene	206-44-0	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Fluorene	86-73-7	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Naphthalene	91-20-3	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	N-Nitrosodimethylamine	62-75-9	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Phenanthrene	85-01-8	8270D	µg/kg					--
PAHs	Phenanthrene	85-01-8	8270D SIM	µg/kg	1.9	U	1.9	U	--
PAHs	Pyrene	129-00-0	8270D	µg/kg					--
PAHs	Pyrene	129-00-0	8270D SIM	µg/kg	1.9	U	1.9	U	--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg	19	U	19	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg	19	U	19	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg	19	U	19	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg	19	U	19	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg	19	U	19	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg	19	U	19	U	--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg	19	U	19	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg	19	U	19	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg	19	U	19	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg	36	U	36	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg	36	U	36	U	--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg	36	U	36	U	--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane	57-74-9	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045M	pH	7.55		7.72		2.23
SVOC	1,1'-Biphenyl	92-52-4	8270D	µg/kg					--
SVOC	1,2,4-Trichlorobenzene	120-82-1	8270D	µg/kg					--
SVOC	1,2-Dichlorobenzene	95-50-1	8270D	µg/kg					--
SVOC	1,2-Diphenylhydrazine	122-66-7	8270D	µg/kg					--
SVOC	1,3-Dichlorobenzene	541-73-1	8270D	µg/kg					--
SVOC	1,4-Dichlorobenzene	106-46-7	8270D	µg/kg					--
SVOC	2,4,5-Trichlorophenol	95-95-4	8270D	µg/kg					--
SVOC	2,4,6-Trichlorophenol	88-06-2	8270D	µg/kg					--
SVOC	2,4-Dichlorophenol	120-83-2	8270D	µg/kg					--
SVOC	2,4-Dimethylphenol	105-67-9	8270D	µg/kg					--
SVOC	2,4-Dinitrophenol	51-28-5	8270D	µg/kg					--
SVOC	2,6-Dichlorophenol	87-65-0	8270D	µg/kg					--
SVOC	2-Chloronaphthalene	91-58-7	8270D	µg/kg					--
SVOC	2-Chlorophenol	95-57-8	8270D	µg/kg					--
SVOC	2-Methylphenol	95-48-7	8270D	µg/kg					--
SVOC	2-Nitroaniline	88-74-4	8270D	µg/kg					--
SVOC	2-Nitrophenol	88-75-5	8270D	µg/kg					--
SVOC	3,3'-Dichlorobenzidine	91-94-1	8270D	µg/kg					--
SVOC	3,5-Dimethylphenol	108-68-9	8270D	µg/kg					--
SVOC	3-Nitroaniline	99-09-2	8270D	µg/kg					--
SVOC	4,6-Dinitro-2-methylphenol	534-52-1	8270D	µg/kg					--
SVOC	4-Bromophenyl-phenylether	101-55-3	8270D	µg/kg					--
SVOC	4-Chloro-3-methylphenol	59-50-7	8270D	µg/kg					--
SVOC	4-Chloroaniline	106-47-8	8270D	µg/kg					--
SVOC	4-Chlorophenyl-phenylether	7005-72-3	8270D	µg/kg					--
SVOC	4-Methylphenol	106-44-5	8270D	µg/kg					--
SVOC	4-Nitroaniline	100-01-6	8270D	µg/kg					--
SVOC	4-Nitrophenol	100-02-7	8270D	µg/kg					--
SVOC	Aniline	62-53-3	8270D	µg/kg					--
SVOC	Benzidine	92-87-5	8270D	µg/kg					--
SVOC	Benzo(a)anthracene	56-55-3	8270D	µg/kg					--
SVOC	Benzo(a)pyrene	50-32-8	8270D	µg/kg					--
SVOC	Benzo(b)fluoranthene	205-99-2	8270D	µg/kg					--
SVOC	Benzoic Acid	65-85-0	8270D	µg/kg					--
SVOC	Benzyl Alcohol	100-51-6	8270D	µg/kg					--
SVOC	bis(2-chloroethoxy)methane	111-91-1	8270D	µg/kg					--
SVOC	bis(2-chloroethyl) ether	111-44-4	8270D	µg/kg					--

Table C-6
Field Duplicates for Trench Samples

				Location	5A_DG-587		5A_DG-587		RPD
				Sample Name:	SL-887-SA5A-TR-5.5		SL-587-SA5A-TR-5.5		
				Sample Date	05/22/2014		05/22/2014		
				Start Depth:	5.5		5.5		
				End Depth:					
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
SVOC	bis(2-chloroisopropyl) ether	39638-32-9	8270D	µg/kg					--
SVOC	Carbazole	86-74-8	8270D	µg/kg					--
SVOC	Chrysene	218-01-9	8270D	µg/kg					--
SVOC	Dibenzofuran	132-64-9	8270D	µg/kg					--
SVOC	Diphenylamine	NDPA122-39-4	8270D	µg/kg					--
SVOC	Fluoranthene	206-44-0	8270D	µg/kg					--
SVOC	Hexachlorobenzene	118-74-1	8270D	µg/kg					--
SVOC	Hexachlorobutadiene	87-68-3	8270D	µg/kg					--
SVOC	Hexachlorocyclopentadiene	77-47-4	8270D	µg/kg					--
SVOC	Hexachloroethane	67-72-1	8270D	µg/kg					--
SVOC	Isophorone	78-59-1	8270D	µg/kg					--
SVOC	Nitrobenzene	98-95-3	8270D	µg/kg					--
SVOC	N-Nitroso-di-n-propylamine	621-64-7	8270D	µg/kg					--
SVOC	N-Nitrosodiphenylamine	86-30-6	8270D	µg/kg					--
SVOC	Pentachlorophenol	87-86-5	8270D	µg/kg					--
SVOC	Phenanthrene	85-01-8	8270D	µg/kg					--
SVOC	Phenol	108-95-2	8270D	µg/kg					--
SVOC	Pyrene	129-00-0	8270D	µg/kg					--
SVOC	Pyridine	110-86-1	8270D	µg/kg					--
Terphenyls	m-Terphenyl	92-06-8	8015B	mg/kg					--
Terphenyls	o-Terphenyl	84-15-1	8015B	mg/kg					--
Terphenyls	p-Terphenyl	92-94-4	8015B	mg/kg					--
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015M	mg/kg	5.5	U	5.5	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015M	mg/kg	5.5	U	5.5	U	--
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015M	mg/kg	5.5	U	5.5	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015M	mg/kg	5.5	U	5.5	U	--
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015M	mg/kg	11	U	11	U	--
TPH-EFH w/ Silica Gel	EFH (C8-C11) w/ Silica Gel	PHCC8C11SILICA	8015M	mg/kg	5.5	U	5.5	U	--
TPH-EFH w/ Silica Gel	EFH (C12-C14) w/ Silica Gel	PHCC12C14SILICA	8015M	mg/kg	5.5	U	5.5	U	--
TPH-EFH w/ Silica Gel	EFH (C15-C20) w/ Silica Gel	PHCC15C20SILICA	8015M	mg/kg	5.5	U	5.5	U	--
TPH-EFH w/ Silica Gel	EFH (C21-C30) w/ Silica Gel	PHCC21C30SILICA	8015M	mg/kg	5.5	U	5.5	U	--
TPH-EFH w/ Silica Gel	EFH (C30-C40) w/ Silica Gel	PHCC30C40SILICA	8015M	mg/kg	11	U	11	U	--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015M	mg/kg	1.1	U	1	U	--

ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not caluculated when both field duplicate and normal samples are nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C-6
Field Duplicates for Trench Samples

				Location	5C_DG-651		5C_DG-651		RPD
				Sample Name:	SL-951-SA5C-TR-5.0		SL-651-SA5C-TR-5.0		
				Sample Date	05/30/2014		05/30/2014		
				Start Depth:	5		5		
				End Depth:					
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	1.55	J	2.1	J	30.14
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	5.18	U	0.321	J	200.00
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	5.18	U	5.11	U	--
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	5.18	U	5.11	U	--
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	5.18	U	5.11	U	--
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	5.18	UJ	5.11	UJ	--
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	5.18	U	5.11	U	--
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	5.18	UJ	5.11	UJ	--
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	5.18	UJ	5.11	UJ	--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	5.18	U	5.11	U	--
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	5.18	UJ	5.11	UJ	--
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	5.18	U	5.11	U	--
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	5.18	UJ	5.11	UJ	--
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.04	UJ	0.061	J	200.00
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	1.04	U	1.02	U	--
Dioxins	OCDD	3268-87-9	1613B	ng/kg	11.1		13.8		21.69
Dioxins	OCDF	39001-02-0	1613B	ng/kg	10.4	U	10.2	U	--
Energetics	1,3,5-Trinitrobenzene	99-35-4	8330A	µg/kg	310	U	310	U	--
Energetics	2,4,6-Trinitrotoluene	118-96-7	8330A	µg/kg	310	U	310	UJ	--
Energetics	2,4-Diamino-6-nitrotoluene	6629-29-4	8330A	µg/kg	420	U	420	U	--
Energetics	2,4-Dinitrotoluene	121-14-2	8330A	µg/kg	310	U	310	U	--
Energetics	2,6-Diamino-4-nitrotoluene	59229-75-3	8330A	µg/kg	420	U	420	U	--
Energetics	2,6-Dinitrotoluene	606-20-2	8330A	µg/kg	310	U	310	U	--
Energetics	2-Amino-4,6-Dinitrotoluene	35572-78-2	8330A	µg/kg	310	U	310	U	--
Energetics	2-Nitrotoluene	88-72-2	8330A	µg/kg	310	U	310	U	--
Energetics	3-Nitrotoluene	99-08-1	8330A	µg/kg	310	U	310	U	--
Energetics	4-Amino-2,6-Dinitrotoluene	19406-51-0	8330A	µg/kg	310	U	310	U	--
Energetics	4-Nitrotoluene	99-99-0	8330A	µg/kg	310	U	310	U	--
Energetics	HMX	2691-41-0	8330A	µg/kg	420	U	420	U	--
Energetics	M-Dinitrobenzene	99-65-0	8330A	µg/kg	310	U	310	U	--
Energetics	Nitrobenzene	98-95-3	8330A	µg/kg	310	U	310	U	--
Energetics	Nitroglycerin	55-63-0	8330A	µg/kg	2100	U	2100	U	--
Energetics	PETN	78-11-5	8330A	µg/kg	2100	U	2100	U	--
Energetics	RDX	121-82-4	8330A	µg/kg	310	U	310	U	--
Energetics	Tetryl	479-45-8	8330A	µg/kg	310	U	310	U	--
Glycols	Diethylene Glycol	111-46-6	8015B	mg/kg	10	U	10	UJ	--
Glycols	Ethylene Glycol	107-21-1	8015B	mg/kg	10	U	10	U	--
Glycols	Propylene Glycol	57-55-6	8015B	mg/kg	10	U	10	U	--
Glycols	Triethylene Glycol	112-27-6	8015B	mg/kg	10	U	10	UJ	--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg	93	U			--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg	1.8	U	1.8	U	--
Herbicides	2,4-D	94-75-7	8151A	µg/kg	37	U	38	U	--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg	18	U	18	U	--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg	12	U	13	U	--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg	18	U	18	U	--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg	25	U	25	U	--
Herbicides	MCPA	94-74-6	8151A	µg/kg	2600	U	2600	U	--
Herbicides	MCPP	93-65-2	8151A	µg/kg	2600	U	2600	U	--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg	1.8	U	1.8	U	--
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg	0.43	U	0.42	U	--
Mercury	Mercury	7439-97-6	7471B	mg/kg	0.0166	U	0.0165	U	--
Metals	Aluminum	7429-90-5	6010C	mg/kg	12300		9500		25.69
Metals	Antimony	7440-36-0	6010C	mg/kg	4.02	UJ	4.15	UJ	--
Metals	Arsenic	7440-38-2	6010C	mg/kg	3.57	J	3.17	J	11.87
Metals	Barium	7440-39-3	6010C	mg/kg	71.2		60.7		15.92
Metals	Beryllium	7440-41-7	6010C	mg/kg	0.559	J	0.448	J	22.05
Metals	Boron	7440-42-8	6010C	mg/kg	1.62	J	1.75	J	7.72
Metals	Cadmium	7440-43-9	6010C	mg/kg	1.01	U	1.04	U	--
Metals	Calcium	7440-70-2	6010C	mg/kg	2320	J	2130	J	8.54
Metals	Chromium	7440-47-3	6010C	mg/kg	11.8		9.38		22.85
Metals	Cobalt	7440-48-4	6010C	mg/kg	4.04		3.45		15.75
Metals	Copper	7440-50-8	6010C	mg/kg	5.43		4.42		20.51
Metals	Iron	7439-89-6	6010C	mg/kg	18400		16200		12.72
Metals	Lead	7439-92-1	6010C	mg/kg	5.64		4.95		13.03
Metals	Lithium	7439-93-2	6010C	mg/kg	23.5		22.4		4.79
Metals	Magnesium	7439-95-4	6010C	mg/kg	3660	J	3340	J	9.14
Metals	Manganese	7439-96-5	6010C	mg/kg	272		248		9.23
Metals	Molybdenum	7439-98-7	6010C	mg/kg	2.01	UJ	2.08	UJ	--
Metals	Nickel	7440-02-0	6010C	mg/kg	7.18		5.79		21.43
Metals	Phosphorus	7723-14-0	6010C	mg/kg	318	J	334	J	4.91
Metals	Potassium	7440-09-7	6010C	mg/kg	2910	J	2840	J	2.43
Metals	Selenium	7782-49-2	6020A	mg/kg	0.143	J	0.415	UJ	200.00
Metals	Silver	7440-22-4	6020A	mg/kg	0.201	U	0.208	U	--
Metals	Sodium	7440-23-5	6010C	mg/kg	71.2	J	71.3	J	0.14
Metals	Strontium	7440-24-6	6020A	mg/kg	14.7		9.45		43.48
Metals	Thallium	7440-28-0	6020A	mg/kg	0.263		0.227		14.69
Metals	Tin	7440-31-5	6010C	mg/kg	10.1	U	10.4	U	--
Metals	Titanium	7440-32-6	6010C	mg/kg	943		878		7.14
Metals	Vanadium	7440-62-2	6010C	mg/kg	25.8		20.9		20.99
Metals	Zinc	7440-66-6	6010C	mg/kg	58.5		56.7		3.13
Metals	Zirconium	7440-67-7	6010C	mg/kg	5.03	U	5.19	U	--
Moisture Content	Moisture	MOIST	160.3M	%	4.4		4.6		4.44
PAHs	1-Methylnaphthalene	90-12-0	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	2-Methylnaphthalene	91-57-6	8270D SIM	µg/kg	0.81	J	0.83	J	2.44
PAHs	Acenaphthene	83-32-9	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Acenaphthylene	208-96-8	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Anthracene	120-12-7	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Benzo(a)anthracene	56-55-3	8270D	µg/kg			4	J	--
PAHs	Benzo(a)anthracene	56-55-3	8270D SIM	µg/kg	1.7	U			--
PAHs	Benzo(a)pyrene	50-32-8	8270D	µg/kg	4	J	4	J	0.00
PAHs	Benzo(a)pyrene	50-32-8	8270D SIM	µg/kg					--
PAHs	Benzo(b)fluoranthene	205-99-2	8270D	µg/kg	5	J	5	J	0.00
PAHs	Benzo(b)fluoranthene	205-99-2	8270D SIM	µg/kg					--

Table C-6
Field Duplicates for Trench Samples

				Location	5C_DG-651		5C_DG-651		RPD
				Sample Name:	SL-951-SA5C-TR-5.0		SL-651-SA5C-TR-5.0		
				Sample Date	05/30/2014		05/30/2014		
				Start Depth:	5		5		
				End Depth:					
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
PAHs	Benzo(e)pyrene	192-97-2	8270D SIM	µg/kg	18	UJ	18	UJ	--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Benzo(k)fluoranthene	207-08-9	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Butylbenzylphthalate	85-68-7	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Chrysene	218-01-9	8270D	µg/kg	4	J			--
PAHs	Chrysene	218-01-9	8270D SIM	µg/kg			1.7	U	--
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Diethylphthalate	84-66-2	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Dimethylphthalate	131-11-3	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Di-n-butylphthalate	84-74-2	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Di-n-octylphthalate	117-84-0	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Fluoranthene	206-44-0	8270D	µg/kg			4	J	--
PAHs	Fluoranthene	206-44-0	8270D SIM	µg/kg	1.7	U			--
PAHs	Fluorene	86-73-7	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Naphthalene	91-20-3	8270D SIM	µg/kg	0.89	J	1.7	UJ	200.00
PAHs	N-Nitrosodimethylamine	62-75-9	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Phenanthrene	85-01-8	8270D	µg/kg			4	J	--
PAHs	Phenanthrene	85-01-8	8270D SIM	µg/kg	1.7	U			--
PAHs	Pyrene	129-00-0	8270D	µg/kg			4	J	--
PAHs	Pyrene	129-00-0	8270D SIM	µg/kg	1.7	U			--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg	34	U	34	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg	34	U	34	U	--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg	34	U	34	U	--
Perchlorate	Perchlorate	14797-73-0	6850	µg/kg	5.2	U	5.2	U	--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg	1.8	U	1.8	U	--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg	1.8	U	1.8	U	--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg	1.8	U	1.8	U	--
Pesticides	Aldrin	309-00-2	8081B	µg/kg	0.87	U	0.87	U	--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg	0.87	U	0.87	U	--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg	2	U	2	U	--
Pesticides	Chlordane	57-74-9	8081B	µg/kg	18	U	18	U	--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg	0.87	U	0.87	U	--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg	1.8	U	1.8	U	--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg	0.87	U	0.87	U	--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg	1.8	U	1.8	U	--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg	1.8	U	1.8	U	--
Pesticides	Endrin	72-20-8	8081B	µg/kg	1.8	U	1.8	U	--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg	1.8	U	1.8	U	--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg	1.9	U	1.9	U	--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg	0.87	U	0.87	U	--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg	0.87	U	0.87	U	--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg	0.87	U	0.87	U	--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg	7	U	7	U	--
Pesticides	Mirex	2385-85-5	8081B	µg/kg	1.8	U	1.8	U	--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg	35	U	35	U	--
pH	pH	pH	9045M	pH	7.63		7.85		2.84
SVOC	1,1'-Biphenyl	92-52-4	8270D	µg/kg	35	U	35	U	--
SVOC	1,2,4-Trichlorobenzene	120-82-1	8270D	µg/kg	35	U	35	U	--
SVOC	1,2-Dichlorobenzene	95-50-1	8270D	µg/kg	35	U	35	U	--
SVOC	1,2-Diphenylhydrazine	122-66-7	8270D	µg/kg	35	U	35	U	--
SVOC	1,3-Dichlorobenzene	541-73-1	8270D	µg/kg	35	U	35	U	--
SVOC	1,4-Dichlorobenzene	106-46-7	8270D	µg/kg	35	U	35	U	--
SVOC	2,4,5-Trichlorophenol	95-95-4	8270D	µg/kg	35	U	35	U	--
SVOC	2,4,6-Trichlorophenol	88-06-2	8270D	µg/kg	35	U	35	U	--
SVOC	2,4-Dichlorophenol	120-83-2	8270D	µg/kg	35	U	35	U	--
SVOC	2,4-Dimethylphenol	105-67-9	8270D	µg/kg	35	U	35	U	--
SVOC	2,4-Dinitrophenol	51-28-5	8270D	µg/kg	1000	U	1000	U	--
SVOC	2,6-Dichlorophenol	87-65-0	8270D	µg/kg	35	U			--
SVOC	2-Chloronaphthalene	91-58-7	8270D	µg/kg	35	U	35	U	--
SVOC	2-Chlorophenol	95-57-8	8270D	µg/kg	35	U	35	U	--
SVOC	2-Methylphenol	95-48-7	8270D	µg/kg	35	U	35	U	--
SVOC	2-Nitroaniline	88-74-4	8270D	µg/kg	35	U	35	U	--
SVOC	2-Nitrophenol	88-75-5	8270D	µg/kg	35	U	35	U	--
SVOC	3,3'-Dichlorobenzidine	91-94-1	8270D	µg/kg	350	U	350	U	--
SVOC	3,5-Dimethylphenol	108-68-9	8270D	µg/kg	170	U	170	U	--
SVOC	3-Nitroaniline	99-09-2	8270D	µg/kg	170	U	170	U	--
SVOC	4,6-Dinitro-2-methylphenol	534-52-1	8270D	µg/kg	520	UJ	520	UJ	--
SVOC	4-Bromophenyl-phenylether	101-55-3	8270D	µg/kg	35	U	35	U	--
SVOC	4-Chloro-3-methylphenol	59-50-7	8270D	µg/kg	35	U	35	U	--
SVOC	4-Chloroaniline	106-47-8	8270D	µg/kg	35	U	35	U	--
SVOC	4-Chlorophenyl-phenylether	7005-72-3	8270D	µg/kg	35	U	35	U	--
SVOC	4-Methylphenol	106-44-5	8270D	µg/kg	35	U	35	U	--
SVOC	4-Nitroaniline	100-01-6	8270D	µg/kg	170	UJ	170	UJ	--
SVOC	4-Nitrophenol	100-02-7	8270D	µg/kg	520	U	520	U	--
SVOC	Aniline	62-53-3	8270D	µg/kg	520	U	520	U	--
SVOC	Benzidine	92-87-5	8270D	µg/kg	3500	U	3500	UJ	--
SVOC	Benzo(a)anthracene	56-55-3	8270D	µg/kg			4	J	--
SVOC	Benzo(a)pyrene	50-32-8	8270D	µg/kg	4	J	4	J	0.00
SVOC	Benzo(b)fluoranthene	205-99-2	8270D	µg/kg	5	J	5	J	0.00
SVOC	Benzoic Acid	65-85-0	8270D	µg/kg	520	U	520	U	--
SVOC	Benzyl Alcohol	100-51-6	8270D	µg/kg	520	U	520	U	--
SVOC	bis(2-chloroethoxy)methane	111-91-1	8270D	µg/kg	35	U	35	U	--
SVOC	bis(2-chloroethyl) ether	111-44-4	8270D	µg/kg	35	U	35	U	--

Table C-6
Field Duplicates for Trench Samples

					Location		5C_DG-651		RPD
					Sample Name:		SL-951-SA5C-TR-5.0	SL-651-SA5C-TR-5.0	
					Sample Date		05/30/2014	05/30/2014	
					Start Depth:		5	5	
					End Depth:				
					Area:		Go Back	Go Back	
					Matrix:		SO	SO	
					Sample Type:		FD	N	
SVOC	bis(2-chloroisopropyl) ether	39638-32-9	8270D	µg/kg	35	U	35	U	--
SVOC	Carbazole	86-74-8	8270D	µg/kg	35	U	35	U	--
SVOC	Chrysene	218-01-9	8270D	µg/kg	4	J			--
SVOC	Dibenzofuran	132-64-9	8270D	µg/kg	35	U	35	U	--
SVOC	Diphenylamine	NDPA122-39-4	8270D	µg/kg	170	U	170	U	--
SVOC	Fluoranthene	206-44-0	8270D	µg/kg			4	J	--
SVOC	Hexachlorobenzene	118-74-1	8270D	µg/kg	18	U	18	U	--
SVOC	Hexachlorobutadiene	87-68-3	8270D	µg/kg	35	U	35	U	--
SVOC	Hexachlorocyclopentadiene	77-47-4	8270D	µg/kg	520	U	520	U	--
SVOC	Hexachloroethane	67-72-1	8270D	µg/kg	170	U	170	U	--
SVOC	Isophorone	78-59-1	8270D	µg/kg	35	U	35	U	--
SVOC	Nitrobenzene	98-95-3	8270D	µg/kg	35	U	35	U	--
SVOC	N-Nitroso-di-n-propylamine	621-64-7	8270D	µg/kg	35	U	35	U	--
SVOC	N-Nitrosodiphenylamine	86-30-6	8270D	µg/kg	35	U	35	U	--
SVOC	Pentachlorophenol	87-86-5	8270D	µg/kg	180	U	180	U	--
SVOC	Phenanthrene	85-01-8	8270D	µg/kg			4	J	--
SVOC	Phenol	108-95-2	8270D	µg/kg	35	U	35	U	--
SVOC	Pyrene	129-00-0	8270D	µg/kg			4	J	--
SVOC	Pyridine	110-86-1	8270D	µg/kg	170	U	170	U	--
Terphenyls	m-Terphenyl	92-06-8	8015B	mg/kg	0.18	U	0.18	U	--
Terphenyls	o-Terphenyl	84-15-1	8015B	mg/kg	0.18	U	0.18	U	--
Terphenyls	p-Terphenyl	92-94-4	8015B	mg/kg	0.18	U	0.18	U	--
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015M	mg/kg	5.2	U	5.2	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015M	mg/kg	5.2	U	5.2	U	--
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015M	mg/kg	5.2	U	5.2	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015M	mg/kg	5.2	UJ	4.6	J	200.00
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015M	mg/kg	10	UJ	8.8	J	200.00
TPH-EFH w/ Silica Gel	EFH (C8-C11) w/ Silica Gel	PHCC8C11SILICA	8015M	mg/kg	5.2	UJ	5.2	UJ	--
TPH-EFH w/ Silica Gel	EFH (C12-C14) w/ Silica Gel	PHCC12C14SILICA	8015M	mg/kg	5.2	U	5.2	U	--
TPH-EFH w/ Silica Gel	EFH (C15-C20) w/ Silica Gel	PHCC15C20SILICA	8015M	mg/kg	5.2	U	5.2	U	--
TPH-EFH w/ Silica Gel	EFH (C21-C30) w/ Silica Gel	PHCC21C30SILICA	8015M	mg/kg	5.2	U	5.2	U	--
TPH-EFH w/ Silica Gel	EFH (C30-C40) w/ Silica Gel	PHCC30C40SILICA	8015M	mg/kg	10	U	10	U	--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015M	mg/kg	1	U	1	U	--

ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not caluculated when both field duplicate and normal samples are nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C-7
Field Duplicates for Soil Vapor Location Samples

				Location	5DSV_DG-511		5DSV_DG-511		RPD
				Sample Name:	SVL-811-SA5D-SB-4.5-5.5		SVL-511-SA5D-SB-4.5-5.5		
				Sample Date	05/22/2014		05/22/2014		
				Start Depth:	4.5		4.5		
				End Depth:	5.5		5.5		
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Moisture Content	Moisture	MOIST	160.3M	%	11.5		11.6		0.87
VOC	1,1,1,2-Tetrachloroethane	630-20-6	8260B	µg/kg	5	U	5	U	--
VOC	1,1,1-Trichloroethane	71-55-6	8260B	µg/kg	5	U	5	U	--
VOC	1,1,2,2-Tetrachloroethane	79-34-5	8260B	µg/kg	5	U	5	U	--
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260B	µg/kg	5	U	5	U	--
VOC	1,1,2-Trichloroethane	79-00-5	8260B	µg/kg	5	U	5	U	--
VOC	1,1-Dichloroethane	75-34-3	8260B	µg/kg	5	U	5	U	--
VOC	1,1-Dichloroethene	75-35-4	8260B	µg/kg	5	U	5	U	--
VOC	1,1-Dichloropropene	563-58-6	8260B	µg/kg	5	U	5	U	--
VOC	1,2,3-Trichlorobenzene	87-61-6	8260B	µg/kg	5	U	5	U	--
VOC	1,2,3-Trichloropropane	96-18-4	8260B	µg/kg	5	U	5	U	--
VOC	1,2,4-Trichlorobenzene	120-82-1	8260B	µg/kg	5	U	5	U	--
VOC	1,2,4-Trimethylbenzene	95-63-6	8260B	µg/kg	5	U	5	U	--
VOC	1,2-Dibromo-3-chloropropane	96-12-8	8260B	µg/kg	5	U	5	U	--
VOC	1,2-Dibromoethane	106-93-4	8260B	µg/kg	5	U	5	U	--
VOC	1,2-Dichlorobenzene	95-50-1	8260B	µg/kg	5	U	5	U	--
VOC	1,2-Dichloroethane	107-06-2	8260B	µg/kg	5	U	5	U	--
VOC	1,2-Dichloropropane	78-87-5	8260B	µg/kg	5	U	5	U	--
VOC	1,3,5-Trimethylbenzene	108-67-8	8260B	µg/kg	5	U	5	U	--
VOC	1,3-Dichlorobenzene	541-73-1	8260B	µg/kg	5	U	5	U	--
VOC	1,3-Dichloropropane	142-28-9	8260B	µg/kg	5	U	5	U	--
VOC	1,4-Dichlorobenzene	106-46-7	8260B	µg/kg	5	U	5	U	--
VOC	1-Chlorohexane	544-10-5	8260B	µg/kg	5	U	5	U	--
VOC	2,2-Dichloropropane	594-20-7	8260B	µg/kg	5	U	5	U	--
VOC	2-Butanone (MEK)	78-93-3	8260B	µg/kg	11	U	10	U	--
VOC	2-Chloro-1,1,1-trifluoroethane	75-88-7	8260B	µg/kg	5	U	5	U	--
VOC	2-Chloroethyl Vinyl Ether	110-75-8	8260B	µg/kg	11	U	10	U	--
VOC	2-Chlorotoluene	95-49-8	8260B	µg/kg	5	U	5	U	--
VOC	2-Hexanone	591-78-6	8260B	µg/kg	11	U	10	U	--
VOC	2-Phenylbutane	135-98-8	8260B	µg/kg	5	U	5	U	--
VOC	4-Chlorotoluene	106-43-4	8260B	µg/kg	5	U	5	U	--
VOC	4-Methyl-2-pentanone (MIBK)	108-10-1	8260B	µg/kg	11	U	10	U	--
VOC	Acetone	67-64-1	8260B	µg/kg	21	U	20	U	--
VOC	Acrolein	107-02-8	8260B	µg/kg	110	U	100	U	--
VOC	Acrylonitrile	107-13-1	8260B	µg/kg	21	U	20	U	--
VOC	Benzene	71-43-2	8260B	µg/kg	5	U	5	U	--
VOC	Bromobenzene	108-86-1	8260B	µg/kg	5	U	5	U	--
VOC	Bromochloromethane	74-97-5	8260B	µg/kg	5	U	5	U	--
VOC	Bromodichloromethane	75-27-4	8260B	µg/kg	5	U	5	U	--
VOC	Bromoform	75-25-2	8260B	µg/kg	5	U	5	U	--
VOC	Bromomethane	74-83-9	8260B	µg/kg	5	U	5	U	--
VOC	Carbon Disulfide	75-15-0	8260B	µg/kg	5	U	5	U	--
VOC	Carbon Tetrachloride	56-23-5	8260B	µg/kg	5	U	5	U	--
VOC	Chlorobenzene	108-90-7	8260B	µg/kg	5	U	5	U	--
VOC	Chloroethane	75-00-3	8260B	µg/kg	5	U	5	U	--
VOC	Chloroform	67-66-3	8260B	µg/kg	5	U	5	U	--
VOC	Chloromethane	74-87-3	8260B	µg/kg	5	U	5	U	--
VOC	Chlorotrifluoroethylene	79-38-9	8260B	µg/kg	5	U	5	U	--
VOC	cis-1,2-Dichloroethene	156-59-2	8260B	µg/kg	5	U	5	U	--
VOC	cis-1,3-Dichloropropene	10061-01-5	8260B	µg/kg	5	U	5	U	--
VOC	Cymene	99-87-6	8260B	µg/kg	5	U	5	U	--
VOC	Di isopropyl Ether	108-20-3	8260B	µg/kg	5	U	5	U	--
VOC	Dibromochloromethane	124-48-1	8260B	µg/kg	5	U	5	U	--
VOC	Dibromomethane	74-95-3	8260B	µg/kg	5	U	5	U	--
VOC	Dichlorodifluoromethane	75-71-8	8260B	µg/kg	5	U	5	U	--
VOC	Ethylbenzene	100-41-4	8260B	µg/kg	5	U	5	U	--
VOC	Hexachloro-1,3-butadiene	87-68-3	8260B	µg/kg	5	U	5	U	--
VOC	Isopropylbenzene	98-82-8	8260B	µg/kg	5	U	5	U	--
VOC	m,p-Xylene	179601-23-1	8260B	µg/kg	5	U	5	U	--
VOC	Methyl Iodide	74-88-4	8260B	µg/kg	5	U	5	U	--
VOC	Methyl Tert-Butyl Ether	1634-04-4	8260B	µg/kg	5	U	5	U	--
VOC	Methylene Chloride	75-09-2	8260B	µg/kg	5	U	5	U	--
VOC	n-Butylbenzene	104-51-8	8260B	µg/kg	5	U	5	U	--
VOC	n-Propylbenzene	103-65-1	8260B	µg/kg	5	U	5	U	--
VOC	o-Xylene	95-47-6	8260B	µg/kg	5	U	5	U	--
VOC	Styrene	100-42-5	8260B	µg/kg	5	U	5	U	--
VOC	tert-Butyl ethyl ether	637-92-3	8260B	µg/kg	5	U	5	U	--
VOC	tert-Butylbenzene	98-06-6	8260B	µg/kg	5	U	5	U	--
VOC	Tertiary amyl methyl ether	994-05-8	8260B	µg/kg	5	U	5	U	--
VOC	Tertiary butyl alcohol	75-65-0	8260B	µg/kg	53	U	50	U	--
VOC	Tetrachloroethene	127-18-4	8260B	µg/kg	5	U	5	U	--
VOC	Toluene	108-88-3	8260B	µg/kg	5	U	5	U	--
VOC	trans-1,2-Dichloroethene	156-60-5	8260B	µg/kg	5	U	5	U	--
VOC	trans-1,3-Dichloropropene	10061-02-6	8260B	µg/kg	5	U	5	U	--
VOC	Trichloroethene	79-01-6	8260B	µg/kg	5	U	5	U	--
VOC	Trichlorofluoromethane	75-69-4	8260B	µg/kg	5	U	5	U	--
VOC	Vinyl Acetate	108-05-4	8260B	µg/kg	11	U	10	U	--
VOC	Vinyl Chloride	75-01-4	8260B	µg/kg	5	U	5	U	--

ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not caluculated when both field duplicate and normal samples are nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C-7
Field Duplicates for Soil Vapor Location Samples

				Location	5BSV_DG-532		5BSV_DG-532		RPD
				Sample Name:	SVL-832-SA5B-SB-4.0-5.0		SVL-532-SA5B-SB-4.0-5.0		
				Sample Date	05/13/2014		05/13/2014		
				Start Depth:	4		4		
				End Depth:	5		5		
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Moisture Content	Moisture	MOIST	160.3M	%	7.3		8.1		10.39
VOC	1,1,1,2-Tetrachloroethane	630-20-6	8260B	µg/kg	5	U	5	U	--
VOC	1,1,1-Trichloroethane	71-55-6	8260B	µg/kg	5	U	5	U	--
VOC	1,1,2,2-Tetrachloroethane	79-34-5	8260B	µg/kg	5	U	5	U	--
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260B	µg/kg	5	U	5	U	--
VOC	1,1,2-Trichloroethane	79-00-5	8260B	µg/kg	5	U	5	U	--
VOC	1,1-Dichloroethane	75-34-3	8260B	µg/kg	5	U	5	U	--
VOC	1,1-Dichloroethene	75-35-4	8260B	µg/kg	5	U	5	U	--
VOC	1,1-Dichloropropene	563-58-6	8260B	µg/kg	5	U	5	U	--
VOC	1,2,3-Trichlorobenzene	87-61-6	8260B	µg/kg	5	U	5	U	--
VOC	1,2,3-Trichloropropane	96-18-4	8260B	µg/kg	5	U	5	U	--
VOC	1,2,4-Trichlorobenzene	120-82-1	8260B	µg/kg	5	U	5	U	--
VOC	1,2,4-Trimethylbenzene	95-63-6	8260B	µg/kg	5	U	5	U	--
VOC	1,2-Dibromo-3-chloropropane	96-12-8	8260B	µg/kg	5	U	5	U	--
VOC	1,2-Dibromoethane	106-93-4	8260B	µg/kg	5	U	5	U	--
VOC	1,2-Dichlorobenzene	95-50-1	8260B	µg/kg	5	U	5	U	--
VOC	1,2-Dichloroethane	107-06-2	8260B	µg/kg	5	U	5	U	--
VOC	1,2-Dichloropropane	78-87-5	8260B	µg/kg	5	U	5	U	--
VOC	1,3,5-Trimethylbenzene	108-67-8	8260B	µg/kg	5	U	5	U	--
VOC	1,3-Dichlorobenzene	541-73-1	8260B	µg/kg	5	U	5	U	--
VOC	1,3-Dichloropropane	142-28-9	8260B	µg/kg	5	U	5	U	--
VOC	1,4-Dichlorobenzene	106-46-7	8260B	µg/kg	5	U	5	U	--
VOC	1-Chlorohexane	544-10-5	8260B	µg/kg	5	U	5	U	--
VOC	2,2-Dichloropropane	594-20-7	8260B	µg/kg	5	U	5	U	--
VOC	2-Butanone (MEK)	78-93-3	8260B	µg/kg	9	U	9	U	--
VOC	2-Chloro-1,1,1-trifluoroethane	75-88-7	8260B	µg/kg	5	U	5	U	--
VOC	2-Chloroethyl Vinyl Ether	110-75-8	8260B	µg/kg	9	U	9	U	--
VOC	2-Chlorotoluene	95-49-8	8260B	µg/kg	5	U	5	U	--
VOC	2-Hexanone	591-78-6	8260B	µg/kg	9	U	9	U	--
VOC	2-Phenylbutane	135-98-8	8260B	µg/kg	5	U	5	U	--
VOC	4-Chlorotoluene	106-43-4	8260B	µg/kg	5	U	5	U	--
VOC	4-Methyl-2-pentanone (MIBK)	108-10-1	8260B	µg/kg	9	U	9	U	--
VOC	Acetone	67-64-1	8260B	µg/kg	19	U	19	U	--
VOC	Acrolein	107-02-8	8260B	µg/kg	93	U	93	U	--
VOC	Acrylonitrile	107-13-1	8260B	µg/kg	19	U	19	U	--
VOC	Benzene	71-43-2	8260B	µg/kg	5	U	5	U	--
VOC	Bromobenzene	108-86-1	8260B	µg/kg	5	U	5	U	--
VOC	Bromochloromethane	74-97-5	8260B	µg/kg	5	U	5	U	--
VOC	Bromodichloromethane	75-27-4	8260B	µg/kg	5	U	5	U	--
VOC	Bromoform	75-25-2	8260B	µg/kg	5	U	5	U	--
VOC	Bromomethane	74-83-9	8260B	µg/kg	5	U	5	U	--
VOC	Carbon Disulfide	75-15-0	8260B	µg/kg	5	U	5	U	--
VOC	Carbon Tetrachloride	56-23-5	8260B	µg/kg	5	U	5	U	--
VOC	Chlorobenzene	108-90-7	8260B	µg/kg	5	U	5	U	--
VOC	Chloroethane	75-00-3	8260B	µg/kg	5	U	5	U	--
VOC	Chloroform	67-66-3	8260B	µg/kg	5	U	5	U	--
VOC	Chloromethane	74-87-3	8260B	µg/kg	5	U	5	U	--
VOC	Chlorotrifluoroethylene	79-38-9	8260B	µg/kg	5	U	5	U	--
VOC	cis-1,2-Dichloroethene	156-59-2	8260B	µg/kg	5	U	5	U	--
VOC	cis-1,3-Dichloropropene	10061-01-5	8260B	µg/kg	5	U	5	U	--
VOC	Cymene	99-87-6	8260B	µg/kg	5	U	5	U	--
VOC	Di isopropyl Ether	108-20-3	8260B	µg/kg	5	U	5	U	--
VOC	Dibromochloromethane	124-48-1	8260B	µg/kg	5	U	5	U	--
VOC	Dibromomethane	74-95-3	8260B	µg/kg	5	U	5	U	--
VOC	Dichlorodifluoromethane	75-71-8	8260B	µg/kg	5	U	5	U	--
VOC	Ethylbenzene	100-41-4	8260B	µg/kg	5	U	5	U	--
VOC	Hexachloro-1,3-butadiene	87-68-3	8260B	µg/kg	5	U	5	U	--
VOC	Isopropylbenzene	98-82-8	8260B	µg/kg	5	U	5	U	--
VOC	m,p-Xylene	179601-23-1	8260B	µg/kg	5	U	5	U	--
VOC	Methyl Iodide	74-88-4	8260B	µg/kg	5	U	5	U	--
VOC	Methyl Tert-Butyl Ether	1634-04-4	8260B	µg/kg	5	U	5	U	--
VOC	Methylene Chloride	75-09-2	8260B	µg/kg	5	U	5	U	--
VOC	n-Butylbenzene	104-51-8	8260B	µg/kg	5	U	5	U	--
VOC	n-Propylbenzene	103-65-1	8260B	µg/kg	5	U	5	U	--
VOC	o-Xylene	95-47-6	8260B	µg/kg	5	U	5	U	--
VOC	Styrene	100-42-5	8260B	µg/kg	5	U	5	U	--
VOC	tert-Butyl ethyl ether	637-92-3	8260B	µg/kg	5	U	5	U	--
VOC	tert-Butylbenzene	98-06-6	8260B	µg/kg	5	U	5	U	--
VOC	Tertiary amyl methyl ether	994-05-8	8260B	µg/kg	5	U	5	U	--
VOC	Tertiary butyl alcohol	75-65-0	8260B	µg/kg	47	U	46	U	--
VOC	Tetrachloroethene	127-18-4	8260B	µg/kg	5	U	5	U	--
VOC	Toluene	108-88-3	8260B	µg/kg	5	U	5	U	--
VOC	trans-1,2-Dichloroethene	156-60-5	8260B	µg/kg	5	U	5	U	--
VOC	trans-1,3-Dichloropropene	10061-02-6	8260B	µg/kg	5	U	5	U	--
VOC	Trichloroethene	79-01-6	8260B	µg/kg	5	U	5	U	--
VOC	Trichlorofluoromethane	75-69-4	8260B	µg/kg	5	U	5	U	--
VOC	Vinyl Acetate	108-05-4	8260B	µg/kg	9	U	9	U	--
VOC	Vinyl Chloride	75-01-4	8260B	µg/kg	5	U	5	U	--

ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not caluculated when both field duplicate and normal samples are nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C-7
Field Duplicates for Soil Vapor Location Samples

				Location	8SV_DG-546		8SV_DG-546		RPD
				Sample Name:	SVL-846-SA8-SB-4.4-4.9		SVL-546-SA8-SB-4.4-4.9		
				Sample Date	06/12/2014		06/12/2014		
				Start Depth:	4.4		4.4		
				End Depth:	4.9		4.9		
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Moisture Content	Moisture	MOIST	160.3M	%	4.5		4.5		0.00
VOC	1,1,1,2-Tetrachloroethane	630-20-6	8260B	µg/kg	5	U	5	U	--
VOC	1,1,1-Trichloroethane	71-55-6	8260B	µg/kg	5	U	5	U	--
VOC	1,1,2,2-Tetrachloroethane	79-34-5	8260B	µg/kg	5	U	5	U	--
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260B	µg/kg	5	U	5	U	--
VOC	1,1,2-Trichloroethane	79-00-5	8260B	µg/kg	5	U	5	U	--
VOC	1,1-Dichloroethane	75-34-3	8260B	µg/kg	5	U	5	U	--
VOC	1,1-Dichloroethene	75-35-4	8260B	µg/kg	5	U	5	U	--
VOC	1,1-Dichloropropene	563-58-6	8260B	µg/kg	5	U	5	U	--
VOC	1,2,3-Trichlorobenzene	87-61-6	8260B	µg/kg	5	U	5	U	--
VOC	1,2,3-Trichloropropane	96-18-4	8260B	µg/kg	5	U	5	U	--
VOC	1,2,4-Trichlorobenzene	120-82-1	8260B	µg/kg	5	U	5	U	--
VOC	1,2,4-Trimethylbenzene	95-63-6	8260B	µg/kg	5	U	5	U	--
VOC	1,2-Dibromo-3-chloropropane	96-12-8	8260B	µg/kg	5	U	5	U	--
VOC	1,2-Dibromoethane	106-93-4	8260B	µg/kg	5	U	5	U	--
VOC	1,2-Dichlorobenzene	95-50-1	8260B	µg/kg	5	U	5	U	--
VOC	1,2-Dichloroethane	107-06-2	8260B	µg/kg	5	U	5	U	--
VOC	1,2-Dichloropropane	78-87-5	8260B	µg/kg	5	U	5	U	--
VOC	1,3,5-Trimethylbenzene	108-67-8	8260B	µg/kg	5	U	5	U	--
VOC	1,3-Dichlorobenzene	541-73-1	8260B	µg/kg	5	U	5	U	--
VOC	1,3-Dichloropropane	142-28-9	8260B	µg/kg	5	U	5	U	--
VOC	1,4-Dichlorobenzene	106-46-7	8260B	µg/kg	5	U	5	U	--
VOC	1-Chlorohexane	544-10-5	8260B	µg/kg	5	U	5	U	--
VOC	2,2-Dichloropropane	594-20-7	8260B	µg/kg	5	U	5	U	--
VOC	2-Butanone (MEK)	78-93-3	8260B	µg/kg	10	U	10	U	--
VOC	2-Chloro-1,1,1-trifluoroethane	75-88-7	8260B	µg/kg	5	U	5	U	--
VOC	2-Chloroethyl Vinyl Ether	110-75-8	8260B	µg/kg	10	U	10	U	--
VOC	2-Chlorotoluene	95-49-8	8260B	µg/kg	5	U	5	U	--
VOC	2-Hexanone	591-78-6	8260B	µg/kg	10	U	10	U	--
VOC	2-Phenylbutane	135-98-8	8260B	µg/kg	5	U	5	U	--
VOC	4-Chlorotoluene	106-43-4	8260B	µg/kg	5	U	5	U	--
VOC	4-Methyl-2-pentanone (MIBK)	108-10-1	8260B	µg/kg	10	U	10	U	--
VOC	Acetone	67-64-1	8260B	µg/kg	20	U	21	U	--
VOC	Acrolein	107-02-8	8260B	µg/kg	100	U	100	U	--
VOC	Acrylonitrile	107-13-1	8260B	µg/kg	20	U	21	U	--
VOC	Benzene	71-43-2	8260B	µg/kg	5	U	5	U	--
VOC	Bromobenzene	108-86-1	8260B	µg/kg	5	U	5	U	--
VOC	Bromochloromethane	74-97-5	8260B	µg/kg	5	U	5	U	--
VOC	Bromodichloromethane	75-27-4	8260B	µg/kg	5	U	5	U	--
VOC	Bromoform	75-25-2	8260B	µg/kg	5	U	5	U	--
VOC	Bromomethane	74-83-9	8260B	µg/kg	5	U	5	U	--
VOC	Carbon Disulfide	75-15-0	8260B	µg/kg	5	U	5	U	--
VOC	Carbon Tetrachloride	56-23-5	8260B	µg/kg	5	U	5	U	--
VOC	Chlorobenzene	108-90-7	8260B	µg/kg	5	U	5	U	--
VOC	Chloroethane	75-00-3	8260B	µg/kg	5	U	5	U	--
VOC	Chloroform	67-66-3	8260B	µg/kg	5	U	5	U	--
VOC	Chloromethane	74-87-3	8260B	µg/kg	5	U	5	U	--
VOC	Chlorotrifluoroethylene	79-38-9	8260B	µg/kg	5	U	5	U	--
VOC	cis-1,2-Dichloroethene	156-59-2	8260B	µg/kg	5	U	5	U	--
VOC	cis-1,3-Dichloropropene	10061-01-5	8260B	µg/kg	5	U	5	U	--
VOC	Cymene	99-87-6	8260B	µg/kg	5	U	5	U	--
VOC	Di isopropyl Ether	108-20-3	8260B	µg/kg	5	U	5	U	--
VOC	Dibromochloromethane	124-48-1	8260B	µg/kg	5	U	5	U	--
VOC	Dibromomethane	74-95-3	8260B	µg/kg	5	U	5	U	--
VOC	Dichlorodifluoromethane	75-71-8	8260B	µg/kg	5	U	5	U	--
VOC	Ethylbenzene	100-41-4	8260B	µg/kg	5	U	5	U	--
VOC	Hexachloro-1,3-butadiene	87-68-3	8260B	µg/kg	5	U	5	U	--
VOC	Isopropylbenzene	98-82-8	8260B	µg/kg	5	U	5	U	--
VOC	m,p-Xylene	179601-23-1	8260B	µg/kg	5	U	5	U	--
VOC	Methyl Iodide	74-88-4	8260B	µg/kg	5	U	5	U	--
VOC	Methyl Tert-Butyl Ether	1634-04-4	8260B	µg/kg	5	U	5	U	--
VOC	Methylene Chloride	75-09-2	8260B	µg/kg	5	U	5	U	--
VOC	n-Butylbenzene	104-51-8	8260B	µg/kg	5	U	5	U	--
VOC	n-Propylbenzene	103-65-1	8260B	µg/kg	5	U	5	U	--
VOC	o-Xylene	95-47-6	8260B	µg/kg	5	U	5	U	--
VOC	Styrene	100-42-5	8260B	µg/kg	5	U	5	U	--
VOC	tert-Butyl ethyl ether	637-92-3	8260B	µg/kg	5	U	5	U	--
VOC	tert-Butylbenzene	98-06-6	8260B	µg/kg	5	U	5	U	--
VOC	Tertiary amyl methyl ether	994-05-8	8260B	µg/kg	5	U	5	U	--
VOC	Tertiary butyl alcohol	75-65-0	8260B	µg/kg	50	U	51	U	--
VOC	Tetrachloroethene	127-18-4	8260B	µg/kg	5	U	5	U	--
VOC	Toluene	108-88-3	8260B	µg/kg	5	U	5	U	--
VOC	trans-1,2-Dichloroethene	156-60-5	8260B	µg/kg	5	U	5	U	--
VOC	trans-1,3-Dichloropropene	10061-02-6	8260B	µg/kg	5	U	5	U	--
VOC	Trichloroethene	79-01-6	8260B	µg/kg	5	U	5	U	--
VOC	Trichlorofluoromethane	75-69-4	8260B	µg/kg	5	U	5	U	--
VOC	Vinyl Acetate	108-05-4	8260B	µg/kg	10	U	10	UJ	--
VOC	Vinyl Chloride	75-01-4	8260B	µg/kg	5	U	5	U	--

ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not caluculated when both field duplicate and normal samples are nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C-7
Field Duplicates for Soil Vapor Location Samples

				Location	5BSV_DG-586		5BSV_DG-586		RPD
				Sample Name:	SVL-986-SA5B-SB-3.75-4.25		SVL-586-SA5B-SB-3.75-4.25		
				Sample Date	06/04/2014		06/04/2014		
				Start Depth:	3.75		3.75		
				End Depth:	4.25		4.25		
				Area:	Go Back		Go Back		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Moisture Content	Moisture	MOIST	160.3M	%	4.4		4.6		4.44
VOC	1,1,1,2-Tetrachloroethane	630-20-6	8260B	µg/kg	5	U	5	U	--
VOC	1,1,1-Trichloroethane	71-55-6	8260B	µg/kg	5	U	5	U	--
VOC	1,1,2,2-Tetrachloroethane	79-34-5	8260B	µg/kg	5	U	5	U	--
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260B	µg/kg	5	U	5	U	--
VOC	1,1,2-Trichloroethane	79-00-5	8260B	µg/kg	5	U	5	U	--
VOC	1,1-Dichloroethane	75-34-3	8260B	µg/kg	5	U	5	U	--
VOC	1,1-Dichloroethene	75-35-4	8260B	µg/kg	5	U	5	U	--
VOC	1,1-Dichloropropene	563-58-6	8260B	µg/kg	5	U	5	U	--
VOC	1,2,3-Trichlorobenzene	87-61-6	8260B	µg/kg	5	U	5	U	--
VOC	1,2,3-Trichloropropane	96-18-4	8260B	µg/kg	5	U	5	U	--
VOC	1,2,4-Trichlorobenzene	120-82-1	8260B	µg/kg	5	U	5	U	--
VOC	1,2,4-Trimethylbenzene	95-63-6	8260B	µg/kg	5	U	5	U	--
VOC	1,2-Dibromo-3-chloropropane	96-12-8	8260B	µg/kg	5	U	5	U	--
VOC	1,2-Dibromoethane	106-93-4	8260B	µg/kg	5	U	5	U	--
VOC	1,2-Dichlorobenzene	95-50-1	8260B	µg/kg	5	U	5	U	--
VOC	1,2-Dichloroethane	107-06-2	8260B	µg/kg	5	U	5	U	--
VOC	1,2-Dichloropropane	78-87-5	8260B	µg/kg	5	U	5	U	--
VOC	1,3,5-Trimethylbenzene	108-67-8	8260B	µg/kg	5	U	5	U	--
VOC	1,3-Dichlorobenzene	541-73-1	8260B	µg/kg	5	U	5	U	--
VOC	1,3-Dichloropropane	142-28-9	8260B	µg/kg	5	U	5	U	--
VOC	1,4-Dichlorobenzene	106-46-7	8260B	µg/kg	5	U	5	U	--
VOC	1-Chlorohexane	544-10-5	8260B	µg/kg	5	U	5	U	--
VOC	2,2-Dichloropropane	594-20-7	8260B	µg/kg	5	U	5	U	--
VOC	2-Butanone (MEK)	78-93-3	8260B	µg/kg	11	U	11	U	--
VOC	2-Chloro-1,1,1-trifluoroethane	75-88-7	8260B	µg/kg	5	U	5	U	--
VOC	2-Chloroethyl Vinyl Ether	110-75-8	8260B	µg/kg	11	U	11	U	--
VOC	2-Chlorotoluene	95-49-8	8260B	µg/kg	5	U	5	U	--
VOC	2-Hexanone	591-78-6	8260B	µg/kg	11	U	11	U	--
VOC	2-Phenylbutane	135-98-8	8260B	µg/kg	5	U	5	U	--
VOC	4-Chlorotoluene	106-43-4	8260B	µg/kg	5	U	5	U	--
VOC	4-Methyl-2-pentanone (MIBK)	108-10-1	8260B	µg/kg	11	U	11	U	--
VOC	Acetone	67-64-1	8260B	µg/kg	22	U	22	U	--
VOC	Acrolein	107-02-8	8260B	µg/kg	110	U	110	U	--
VOC	Acrylonitrile	107-13-1	8260B	µg/kg	22	U	22	U	--
VOC	Benzene	71-43-2	8260B	µg/kg	5	U	5	U	--
VOC	Bromobenzene	108-86-1	8260B	µg/kg	5	U	5	U	--
VOC	Bromochloromethane	74-97-5	8260B	µg/kg	5	U	5	U	--
VOC	Bromodichloromethane	75-27-4	8260B	µg/kg	5	U	5	U	--
VOC	Bromoform	75-25-2	8260B	µg/kg	5	U	5	U	--
VOC	Bromomethane	74-83-9	8260B	µg/kg	5	U	5	U	--
VOC	Carbon Disulfide	75-15-0	8260B	µg/kg	5	U	5	U	--
VOC	Carbon Tetrachloride	56-23-5	8260B	µg/kg	5	U	5	U	--
VOC	Chlorobenzene	108-90-7	8260B	µg/kg	5	U	5	U	--
VOC	Chloroethane	75-00-3	8260B	µg/kg	5	U	5	U	--
VOC	Chloroform	67-66-3	8260B	µg/kg	5	U	5	U	--
VOC	Chloromethane	74-87-3	8260B	µg/kg	5	U	5	U	--
VOC	Chlorotrifluoroethylene	79-38-9	8260B	µg/kg	5	U	5	U	--
VOC	cis-1,2-Dichloroethene	156-59-2	8260B	µg/kg	5	U	5	U	--
VOC	cis-1,3-Dichloropropene	10061-01-5	8260B	µg/kg	5	U	5	U	--
VOC	Cymene	99-87-6	8260B	µg/kg	5	U	5	U	--
VOC	Di isopropyl Ether	108-20-3	8260B	µg/kg	5	U	5	U	--
VOC	Dibromochloromethane	124-48-1	8260B	µg/kg	5	U	5	U	--
VOC	Dibromomethane	74-95-3	8260B	µg/kg	5	U	5	U	--
VOC	Dichlorodifluoromethane	75-71-8	8260B	µg/kg	5	U	5	U	--
VOC	Ethylbenzene	100-41-4	8260B	µg/kg	5	U	5	U	--
VOC	Hexachloro-1,3-butadiene	87-68-3	8260B	µg/kg	5	U	5	U	--
VOC	Isopropylbenzene	98-82-8	8260B	µg/kg	5	U	5	U	--
VOC	m,p-Xylene	179601-23-1	8260B	µg/kg	5	U	5	U	--
VOC	Methyl Iodide	74-88-4	8260B	µg/kg	5	U	5	U	--
VOC	Methyl Tert-Butyl Ether	1634-04-4	8260B	µg/kg	5	U	5	U	--
VOC	Methylene Chloride	75-09-2	8260B	µg/kg	5	U	5	U	--
VOC	n-Butylbenzene	104-51-8	8260B	µg/kg	5	U	5	U	--
VOC	n-Propylbenzene	103-65-1	8260B	µg/kg	5	U	5	U	--
VOC	o-Xylene	95-47-6	8260B	µg/kg	5	U	5	U	--
VOC	Styrene	100-42-5	8260B	µg/kg	5	U	5	U	--
VOC	tert-Butyl ethyl ether	637-92-3	8260B	µg/kg	5	U	5	U	--
VOC	tert-Butylbenzene	98-06-6	8260B	µg/kg	5	U	5	U	--
VOC	Tertiary amyl methyl ether	994-05-8	8260B	µg/kg	5	U	5	U	--
VOC	Tertiary butyl alcohol	75-65-0	8260B	µg/kg	55	U	54	U	--
VOC	Tetrachloroethene	127-18-4	8260B	µg/kg	5	U	5	U	--
VOC	Toluene	108-88-3	8260B	µg/kg	5	U	5	U	--
VOC	trans-1,2-Dichloroethene	156-60-5	8260B	µg/kg	5	U	5	U	--
VOC	trans-1,3-Dichloropropene	10061-02-6	8260B	µg/kg	5	U	5	U	--
VOC	Trichloroethene	79-01-6	8260B	µg/kg	5	U	5	U	--
VOC	Trichlorofluoromethane	75-69-4	8260B	µg/kg	5	U	5	U	--
VOC	Vinyl Acetate	108-05-4	8260B	µg/kg	11	U	11	U	--
VOC	Vinyl Chloride	75-01-4	8260B	µg/kg	5	U	5	U	--

ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not caluculated when both field duplicate and normal samples are nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C-8
Go-Backs, Trenches and Soil Vapor Locations – Summary of Data Completeness Following Data Validation

	Number of Analyte Detections Without Qualifiers	Number of Estimated Results	Number of Rejected Results	Number of Nondetect Results	Number of Estimated Nondetect Results	Total Analytes Detect and Nondetect	Percent of Analyte Results Judged Valid Versus Total Analyte Results Collected
Dioxins – 1613B	145	587	--	917	34	1,683	100
Metals - 6010C	1,840	828	--	437	93	3,198	100
Metals – 6020A	212	229	--	48	3	492	100
Perchlorate - 6850	--	--	--	27	--	27	100
Hexavalent Chromium – 7199	1	5	--	6	--	12	100
Mercury – 7471B	43	35	--	45	--	123	100
Glycols and Terphenyls – 8015B	--	2	--	48	2	52	100
Glycols – 8015C	--	--	1	16	15	32	96.87
TPH-EFH/GRO – 8015M	209	165	--	837	345	1,556	100
Pesticides – 8081B	5	31	--	577	17	630	100
PCB/PCTs – 8082A	15	31	--	1,513	1	1,560	100
Herbicides – 8151A	2	3	15	120	--	140	89.29
VOCs – 8260B	1	3	--	5,221	11	5,236	100
VOC SIM – 8260B SIM	--	--	--	--	1	1	100
SVOC – 8270D	--	19	1	577	22	619	99.83
SVOC SIM – 8270D SIM	333	420	--	2.370	64	3,187	100
Formaldehyde – 8315A	--	--	--	6	--	6	100
Energetics – 8330A	--	--	--	208	8	216	100
Completeness Total for Phase 3 Go-Backs, Trenches and Soil Vapor Location Samples Collected and Judged Valid							**99.90**

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

CDM
555 17th Street, Suite 1100
Denver, CO 80202
ATTN: Mrs. Cherie Zakowski

March 27, 2014

SUBJECT: Santa Susana Field Laboratory, Subrea Study Data Validation

Dear Mrs. Zakowski,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on February 27, 2014. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project # 31413:

SDG #	Fraction
PH158, PH159	Semivolatile Organic Compunds, Polychlorinated Biphenyls, Metals, Total Petroleum Hydrocarbons as Gasoline, Total Petroleum Hydrocarbons as Extractables, Dioxins/Dibenzofurans, Perchlorate

The data validation was performed under Level III & IV guidelines. The analyses were validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan for Santa Susana Field Laboratory, RCRA Facility Investigation, Surficial Media Operable Unit, March 2009, Revision 4
- Polychlorinated Dioxins/Dibenzofurans Data Review, September 2005
- USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, CLPNFG, June 2008
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, CLPNFG, January 2010
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; Update IV, February 2007

Please feel free to contact us if you have any questions.

Sincerely,

Shauna McKellar
Project Manager/Chemist

2,113 pages-CD

Attachment 1

90/10 ADR/IV

LDC #31413 (CDM Federal Programs-Chantilly VA / Santa Susana Field Laboratory, Go Backs)

LDC	SDG#	DATE REC'D	(4) DATE DUE	SVOA (8270D -SIM)		PCBs (8082A)		Metals & Hg (SW846)		TPH-G (8015B)		TPH-E (8015B)		Dioxins (1613B)		CLO_4 (6850)																					
Matrix: Water/Soil				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	PH158	02/27/14	03/27/14	0	6	0	6	0	6	1	4	0	6	0	6	-	-																				
B	PH159	02/27/14	03/27/14	1	8	1	8	1	8	2	6	1	8	1	8	1	0																				
Total	T/SM			1	14	1	14	1	14	3	10	1	14	1	14	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	89

Shaded cells indicate Level IV validation (all other cells are ADR review). These sample counts do not include MS/MSD, and DUPs

Data Validation Report
Santa Susana Field Laboratory

Go Backs

SDG: PH158

Prepared for

CDM Smith
555 17th Street, Suite 1100
Denver, CO 80202

Prepared by

Laboratory Data Consultants, Inc.
2701 Loker Ave West, Suite 220
Carlsbad, CA 92010

March 26, 2014

INTRODUCTION

This Data Validation Report (DVR) presents Level IV data validation results for samples collected on January 13, 2014. Data validation was performed in accordance with the Quality Assurance Project Plan (QAPP) for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines (CLPNFGs) for Superfund Organic Methods Data Review (June 2008), Polychlorinated Dioxins/Dibenzofurans Data Review (September 2005) and for Inorganic Data Review (January 2010). Where specific guidance is not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following methods:

Semivolatiles (SVOCs) by Environmental Protection Agency (EPA) SW 846 Method 8270D utilizing Selective Ion Monitoring (SIM)
Polychlorinated Biphenyls (PCBs) by EPA SW 846 Method 8082A
Metals by EPA SW 846 Method 6010C, 6020A and 7471B
Total Petroleum Hydrocarbons (TPH) as Gasoline by EPA SW 846 Method 8015B Modified
TPH as Extractables by EPA SW 846 Method 8015B Modified
Polychlorinated Dioxins/Dibenzofurans by EPA Method 1613B

The sample identification and methods of analyses performed on each sample is presented in Attachment 1. Overall data qualification summary is presented in Attachment 2. Level III Automated Data Review outliers are presented in Enclosure I. Level IV DVRs are presented in Enclosure II.

All sample results were subjected to Level IV data validation, which comprises an evaluation of quality control (QC) summary results for sample holding times, initial and continuing calibrations, initial and continuing calibration blanks (ICB/CCBs), surrogates, internal standards, interference check (ICSA and ICSAB) samples, matrix spike/matrix spike duplicates (MS/MSD), laboratory duplicates (DUP), laboratory control sample/laboratory control sample duplicates (LCS/LCSD), ICP serial dilutions, method blanks, trip blanks, equipment blanks, field blanks, field duplicate samples, and the raw data to confirm sample quantitation and identification.

Automated data review was performed on all QC summary results using the Automated Data Review (ADR) software program (LDC, 2013) with exception of the initial and continuing calibrations, ICB/CCBs, interference check samples, internal standards (except dioxins/dibenzofurans), and ICP serial dilutions, which were validated manually. Quality assurance (QA)/QC criteria specified in the QAPP and CLPNFGs were incorporated with the program's reference library to assess compliance with project requirements.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met QC criteria.

II. Initial Calibration

All criteria for the initial calibration of each method were met.

III. Continuing Calibration

All criteria for the initial calibration verifications and continuing calibration of each method were met.

IV. Blanks

Method blanks were performed at the required frequencies. No contaminant concentrations were detected in the method or preparation blanks with the exception of two blanks for metals and dioxins/dibenzofurans. The associated sample results were qualified as non-detected (U) due to method blank contamination as applicable. The sample results that were not detected or were significantly greater than the concentrations found in the associated blanks were not qualified. The details regarding the qualification of data are provided in Enclosures I and II.

No contaminant concentrations were detected in the initial or continuing calibration blanks with the exception of several metals. The associated sample results were not detected or were significantly greater than the concentrations found in the associated blanks, therefore no data were qualified. The details are presented in Enclosure II.

V. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were performed at the required frequency. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the exception of one MS/MSD pair for metals. The associated sample results were qualified as detected estimated (J) or non-detected estimated (UJ) as applicable. The details regarding the qualification of data are provided in Enclosures I and II.

VIII. Laboratory Duplicates Sample

Laboratory duplicates (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits with the exception of one duplicate pair for calcium. The associated sample results were qualified as detected estimated (J). The details regarding the qualification of data are provided in Enclosures I and II.

IX. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

X. Internal Standards

All internal standard areas and retention times or percent recoveries were within QC limits.

XI. ICP Serial Dilution

ICP serial dilution analysis was performed by the laboratory. The analysis criteria were met with the exception of several metals. The details regarding the qualification of data are provided in Enclosure II.

XII. Compound Quantitation

The laboratory reporting limits were evaluated. All laboratory reporting limits met the specified requirements.

All compounds reported below the RL as detected were qualified as follows:

Sample	Finding	Flag
All samples in SDG PH158	All compounds reported as detected below the RL.	J (all detects)

XIII. Field Duplicate Samples

One field duplicate pair was collected and analyzed for SVOCs, PCBs, metals, TPH as extractables, TPH as gasoline, and dioxins/dibenzofurans. All RPDs were within QC limits with the exception of SVOCs, PCBs, metals, and dioxins/dibenzofurans. The associated sample results were qualified as detected estimated (J) or non-detected estimated (UJ) as applicable. The field duplicate result comparisons are provided in Enclosures I and II.

XIV. Field Blank Samples

One trip blank was collected and analyzed for TPH as gasoline. No volatile contaminants were found in the trip blank.

One equipment blank (from SDG PH159) was collected and analyzed for SVOCs, PCBs, metals, TPH as extractables, TPH as gasoline, and dioxins/dibenzofurans. The equipment blank had detections for SVOCs, metals and dioxins/dibenzofurans. The associated sample results were not detected or were significantly greater than the concentrations found in the equipment

blanks, therefore no data were qualified. The details are provided in Enclosure II.

One field blank (from SDG PH032) was collected and analyzed for SVOCs, PCBs, metals, TPH as extractables, TPH as gasoline, and dioxins/dibenzofurans. The field blank had detections for SVOCs, metals and dioxins/dibenzofurans. The associated sample results were qualified as non-detected (U) due to method blank contamination as applicable. The sample results that were not detected or were significantly greater than the concentrations found in the associated blanks were not qualified. The details regarding the qualification of data are provided in Enclosures I and II.

XV. Overall Assessment of Data

No data associated with this sampling event were rejected. The overall assessment of QA/QC data review by automated and manual validation of this sampling event met project requirements and analytical completeness levels with the exceptions noted in the above sections. All data are deemed useable for the intended use.

Data flags are summarized and are presented as Attachment 2.

Attachment 1

Sample Cross Reference

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
13-Jan-2014	TB-011314	7335024	TB	5030B	8015M	IV
13-Jan-2014	SL-840-SA5B-SB-0.0-0.5	7335015	N	3050B	6010C	IV
13-Jan-2014	SL-840-SA5B-SB-0.0-0.5	7335015	N	3050B	6020A	IV
13-Jan-2014	SL-840-SA5B-SB-0.0-0.5	7335015	N	3546	8015M	IV
13-Jan-2014	SL-840-SA5B-SB-0.0-0.5	7335015	N	3546	8082A	IV
13-Jan-2014	SL-840-SA5B-SB-0.0-0.5	7335015	N	3546	8270D SIM	IV
13-Jan-2014	SL-840-SA5B-SB-0.0-0.5	7335015	N	METHOD	1613B	IV
13-Jan-2014	SL-840-SA5B-SB-0.0-0.5	7335015	N	METHOD	7471B	IV
13-Jan-2014	SL-840-SA5B-SB-4.0-5.0	7335016	N	3050B	6010C	IV
13-Jan-2014	SL-840-SA5B-SB-4.0-5.0	7335016	N	3050B	6020A	IV
13-Jan-2014	SL-840-SA5B-SB-4.0-5.0	7335016	N	3546	8015M	IV
13-Jan-2014	SL-840-SA5B-SB-4.0-5.0	7335016	N	3546	8082A	IV
13-Jan-2014	SL-840-SA5B-SB-4.0-5.0	7335016	N	3546	8270D SIM	IV
13-Jan-2014	SL-840-SA5B-SB-4.0-5.0	7335016	N	5035A	8015M	IV
13-Jan-2014	SL-840-SA5B-SB-4.0-5.0	7335016	N	METHOD	1613B	IV
13-Jan-2014	SL-840-SA5B-SB-4.0-5.0	7335016	N	METHOD	7471B	IV
13-Jan-2014	SL-840-SA5B-SB-7.0-8.0	7335017	N	3050B	6010C	IV
13-Jan-2014	SL-840-SA5B-SB-7.0-8.0	7335017	N	3050B	6020A	IV
13-Jan-2014	SL-840-SA5B-SB-7.0-8.0	7335017	N	3546	8015M	IV
13-Jan-2014	SL-840-SA5B-SB-7.0-8.0	7335017	N	3546	8082A	IV
13-Jan-2014	SL-840-SA5B-SB-7.0-8.0	7335017	N	3546	8270D SIM	IV
13-Jan-2014	SL-840-SA5B-SB-7.0-8.0	7335017	N	5035A	8015M	IV
13-Jan-2014	SL-840-SA5B-SB-7.0-8.0	7335017	N	METHOD	1613B	IV
13-Jan-2014	SL-840-SA5B-SB-7.0-8.0	7335017	N	METHOD	7471B	IV
13-Jan-2014	SL-838-SA5B-SB-0.0-0.5	7335018	N	3050B	6010C	IV
13-Jan-2014	SL-838-SA5B-SB-0.0-0.5	7335018	N	3050B	6020A	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
13-Jan-2014	SL-838-SA5B-SB-0.0-0.5	7335018	N	3546	8015M	IV
13-Jan-2014	SL-838-SA5B-SB-0.0-0.5	7335018	N	3546	8082A	IV
13-Jan-2014	SL-838-SA5B-SB-0.0-0.5	7335018	N	3546	8270D SIM	IV
13-Jan-2014	SL-838-SA5B-SB-0.0-0.5	7335018	N	METHOD	1613B	IV
13-Jan-2014	SL-838-SA5B-SB-0.0-0.5	7335018	N	METHOD	7471B	IV
13-Jan-2014	SL-1138-SA5B-SB-4.0-5.0	7335023	FD	3050B	6010C	IV
13-Jan-2014	SL-1138-SA5B-SB-4.0-5.0	7335023	FD	3050B	6020A	IV
13-Jan-2014	SL-1138-SA5B-SB-4.0-5.0	7335023	FD	3546	8015M	IV
13-Jan-2014	SL-1138-SA5B-SB-4.0-5.0	7335023	FD	3546	8082A	IV
13-Jan-2014	SL-1138-SA5B-SB-4.0-5.0	7335023	FD	3546	8270D SIM	IV
13-Jan-2014	SL-1138-SA5B-SB-4.0-5.0	7335023	FD	5035A	8015M	IV
13-Jan-2014	SL-1138-SA5B-SB-4.0-5.0	7335023	FD	METHOD	1613B	IV
13-Jan-2014	SL-1138-SA5B-SB-4.0-5.0	7335023	FD	METHOD	7471B	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0	7335019	N	3050B	6010C	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0	7335019	N	3050B	6020A	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0	7335019	N	3546	8015M	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0	7335019	N	3546	8082A	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0	7335019	N	3546	8270D SIM	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0	7335019	N	5035A	8015M	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0	7335019	N	METHOD	1613B	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0	7335019	N	METHOD	7471B	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0MS	7335020	MS	3050B	6010C	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0MS	7335020	MS	3050B	6020A	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0MS	7335020	MS	3546	8015M	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0MS	7335020	MS	3546	8082A	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0MS	7335020	MS	3546	8270D SIM	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0MS	7335020	MS	5035A	8015M	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0MS	7335020	MS	METHOD	1613B	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0MS	7335020	MS	METHOD	7471B	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0MSD	7335021	MSD	3050B	6010C	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0MSD	7335021	MSD	3050B	6020A	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0MSD	7335021	MSD	3546	8015M	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0MSD	7335021	MSD	3546	8082A	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0MSD	7335021	MSD	3546	8270D SIM	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0MSD	7335021	MSD	5035A	8015M	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0MSD	7335021	MSD	METHOD	1613B	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0MSD	7335021	MSD	METHOD	7471B	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0DUP	7335022	DUP	3050B	6010C	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0DUP	7335022	DUP	3050B	6020A	IV
13-Jan-2014	SL-838-SA5B-SB-4.0-5.0DUP	7335022	DUP	METHOD	7471B	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment 2
Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: PH158 **Laboratory: LL**

EDD Filename: PH158_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method Category: METALS

Method: 6010C **Matrix: SO**

Sample ID: **SL-1138-SA5B-SB-4.0-5.0** ***Collected:*** **1/13/2014 1:40:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	17500		7.95	MDL	44.1	PQL	mg/Kg	J	A
ANTIMONY	4.41	U	0.816	MDL	4.41	PQL	mg/Kg	UJ	Q
ARSENIC	4.29	J	0.772	MDL	4.41	PQL	mg/Kg	J	Z
BARIUM	106		0.0364	MDL	1.10	PQL	mg/Kg	J	A
BERYLLIUM	0.664	J	0.0739	MDL	1.10	PQL	mg/Kg	J	Z
BORON	0.989	J	0.926	MDL	11.0	PQL	mg/Kg	J	Z
CALCIUM	2460		3.68	MDL	22.1	PQL	mg/Kg	J	E, FD, A
IRON	19800		3.99	MDL	44.1	PQL	mg/Kg	J	A
LITHIUM	19.4		0.37	MDL	4.4	PQL	mg/Kg	J	A
MAGNESIUM	3770		1.84	MDL	11.0	PQL	mg/Kg	J	A
MANGANESE	277		0.0915	MDL	1.10	PQL	mg/Kg	J	A
MOLYBDENUM	0.217	J	0.187	MDL	2.21	PQL	mg/Kg	UJ	FD, F
NICKEL	10.8		0.143	MDL	2.21	PQL	mg/Kg	J	A
PHOSPHORUS	149		3.19	MDL	11.0	PQL	mg/Kg	J	Q, A
POTASSIUM	1660		9.20	MDL	110	PQL	mg/Kg	J	A
SODIUM	96.2	J	18.4	MDL	110	PQL	mg/Kg	J	Z
TIN	3.09	J	0.243	MDL	11.0	PQL	mg/Kg	U	B
TITANIUM	1100		0.187	MDL	1.10	PQL	mg/Kg	J	A
VANADIUM	36.7		0.143	MDL	1.10	PQL	mg/Kg	J	A
ZINC	43.8		0.221	MDL	4.41	PQL	mg/Kg	J	A
Zirconium	1.39	J	0.926	MDL	5.51	PQL	mg/Kg	J	Z
CHROMIUM	18.5		0.176	MDL	3.31	PQL	mg/Kg	J	A

Sample ID: **SL-838-SA5B-SB-0.0-0.5** ***Collected:*** **1/13/2014 1:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	14000		7.49	MDL	41.5	PQL	mg/Kg	J	A
ANTIMONY	4.15	U	0.769	MDL	4.15	PQL	mg/Kg	UJ	Q
BARIUM	89.8		0.0343	MDL	1.04	PQL	mg/Kg	J	A
BERYLLIUM	0.534	J	0.0696	MDL	1.04	PQL	mg/Kg	J	Z
CALCIUM	4010		3.47	MDL	20.8	PQL	mg/Kg	J	E, A
CHROMIUM	20.0		0.166	MDL	3.12	PQL	mg/Kg	J	A
IRON	21300		3.76	MDL	41.5	PQL	mg/Kg	J	A
LITHIUM	25.3		0.35	MDL	4.2	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH158 **Laboratory: LL**

EDD Filename: PH158_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method Category: METALS

Method: 6010C **Matrix: SO**

Sample ID: **SL-838-SA5B-SB-0.0-0.5** ***Collected:*** **1/13/2014 1:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MAGNESIUM	4910		1.73	MDL	10.4	PQL	mg/Kg	J	A
MANGANESE	324		0.0862	MDL	1.04	PQL	mg/Kg	J	A
MOLYBDENUM	0.255	J	0.177	MDL	2.08	PQL	mg/Kg	U	F
NICKEL	12.2		0.135	MDL	2.08	PQL	mg/Kg	J	A
PHOSPHORUS	442		3.00	MDL	10.4	PQL	mg/Kg	J	Q, A
POTASSIUM	2830		8.66	MDL	104	PQL	mg/Kg	J	A
TIN	2.87	J	0.228	MDL	10.4	PQL	mg/Kg	U	B
TITANIUM	1170		0.177	MDL	1.04	PQL	mg/Kg	J	A
VANADIUM	38.9		0.135	MDL	1.04	PQL	mg/Kg	J	A
ZINC	55.8		0.208	MDL	4.15	PQL	mg/Kg	J	A
Zirconium	0.890	J	0.872	MDL	5.19	PQL	mg/Kg	J	Z

Sample ID: **SL-838-SA5B-SB-4.0-5.0** ***Collected:*** **1/13/2014 2:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	16400		7.91	MDL	43.9	PQL	mg/Kg	J	A
ANTIMONY	4.39	U	0.812	MDL	4.39	PQL	mg/Kg	UJ	Q
BARIUM	108		0.0362	MDL	1.10	PQL	mg/Kg	J	A
BERYLLIUM	0.610	J	0.0735	MDL	1.10	PQL	mg/Kg	J	Z
BORON	1.17	J	0.922	MDL	11.0	PQL	mg/Kg	J	Z
CALCIUM	4330		3.67	MDL	22.0	PQL	mg/Kg	J	E, FD, A
CHROMIUM	19.3		0.176	MDL	3.29	PQL	mg/Kg	J	A
IRON	20300		3.97	MDL	43.9	PQL	mg/Kg	J	A
LITHIUM	21.4		0.37	MDL	4.4	PQL	mg/Kg	J	A
MAGNESIUM	4070		1.83	MDL	11.0	PQL	mg/Kg	J	A
MANGANESE	271		0.0911	MDL	1.10	PQL	mg/Kg	J	A
MOLYBDENUM	0.660	J	0.187	MDL	2.20	PQL	mg/Kg	UJ	FD, F
NICKEL	10.8		0.143	MDL	2.20	PQL	mg/Kg	J	A
PHOSPHORUS	227		3.17	MDL	11.0	PQL	mg/Kg	J	Q, A
POTASSIUM	2330		9.15	MDL	110	PQL	mg/Kg	J	A
TIN	2.98	J	0.241	MDL	11.0	PQL	mg/Kg	U	B
TITANIUM	1150		0.187	MDL	1.10	PQL	mg/Kg	J	A
VANADIUM	37.5		0.143	MDL	1.10	PQL	mg/Kg	J	A
ZINC	47.0		0.220	MDL	4.39	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH158 **Laboratory: LL**

EDD Filename: PH158_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method Category: METALS

Method: 6010C **Matrix: SO**

Sample ID: **SL-838-SA5B-SB-4.0-5.0** ***Collected:*** **1/13/2014 2:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	1.89	J	0.922	MDL	5.49	PQL	mg/Kg	J	Z

Sample ID: **SL-840-SA5B-SB-0.0-0.5** ***Collected:*** **1/13/2014 10:00:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	14600		7.62	MDL	42.3	PQL	mg/Kg	J	A
ANTIMONY	4.23	U	0.782	MDL	4.23	PQL	mg/Kg	UJ	Q
BARIUM	99.7		0.0349	MDL	1.06	PQL	mg/Kg	J	A
BERYLLIUM	0.588	J	0.0708	MDL	1.06	PQL	mg/Kg	J	Z
BORON	1.51	J	0.888	MDL	10.6	PQL	mg/Kg	J	Z
CALCIUM	2170		3.53	MDL	21.1	PQL	mg/Kg	J	E, A
CHROMIUM	17.2		0.169	MDL	3.17	PQL	mg/Kg	J	A
IRON	18200		3.83	MDL	42.3	PQL	mg/Kg	J	A
LITHIUM	17.8		0.36	MDL	4.2	PQL	mg/Kg	J	A
MAGNESIUM	3430		1.76	MDL	10.6	PQL	mg/Kg	J	A
MANGANESE	304		0.0877	MDL	1.06	PQL	mg/Kg	J	A
MOLYBDENUM	0.592	J	0.180	MDL	2.11	PQL	mg/Kg	U	F
NICKEL	11.2		0.137	MDL	2.11	PQL	mg/Kg	J	A
PHOSPHORUS	259		3.05	MDL	10.6	PQL	mg/Kg	J	Q, A
POTASSIUM	2620		8.81	MDL	106	PQL	mg/Kg	J	A
TIN	2.68	J	0.232	MDL	10.6	PQL	mg/Kg	U	B
TITANIUM	1020		0.180	MDL	1.06	PQL	mg/Kg	J	A
VANADIUM	31.9		0.137	MDL	1.06	PQL	mg/Kg	J	A
ZINC	60.1		0.211	MDL	4.23	PQL	mg/Kg	J	A
Zirconium	2.07	J	0.888	MDL	5.28	PQL	mg/Kg	J	Z

Sample ID: **SL-840-SA5B-SB-4.0-5.0** ***Collected:*** **1/13/2014 10:40:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	17800		7.90	MDL	43.8	PQL	mg/Kg	J	A
ANTIMONY	4.38	U	0.810	MDL	4.38	PQL	mg/Kg	UJ	Q
BARIUM	117		0.0361	MDL	1.10	PQL	mg/Kg	J	A
BERYLLIUM	0.671	J	0.0734	MDL	1.10	PQL	mg/Kg	J	Z
BORON	0.927	J	0.920	MDL	11.0	PQL	mg/Kg	J	Z
CALCIUM	2900		3.66	MDL	21.9	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH158 **Laboratory: LL**

EDD Filename: PH158_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method Category: METALS

Method: 6010C **Matrix: SO**

Sample ID: **SL-840-SA5B-SB-4.0-5.0** ***Collected:*** **1/13/2014 10:40:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	21.2		0.175	MDL	3.29	PQL	mg/Kg	J	A
IRON	21100		3.96	MDL	43.8	PQL	mg/Kg	J	A
LITHIUM	22.5		0.37	MDL	4.4	PQL	mg/Kg	J	A
MAGNESIUM	4000		1.83	MDL	11.0	PQL	mg/Kg	J	A
MANGANESE	206		0.0909	MDL	1.10	PQL	mg/Kg	J	A
MOLYBDENUM	0.571	J	0.186	MDL	2.19	PQL	mg/Kg	U	F
NICKEL	11.3		0.142	MDL	2.19	PQL	mg/Kg	J	A
PHOSPHORUS	142		3.17	MDL	11.0	PQL	mg/Kg	J	Q, A
POTASSIUM	1760		9.13	MDL	110	PQL	mg/Kg	J	A
SODIUM	78.5	J	18.3	MDL	110	PQL	mg/Kg	J	Z
TIN	2.69	J	0.241	MDL	11.0	PQL	mg/Kg	U	B
TITANIUM	1150		0.186	MDL	1.10	PQL	mg/Kg	J	A
VANADIUM	39.8		0.142	MDL	1.10	PQL	mg/Kg	J	A
ZINC	46.3		0.219	MDL	4.38	PQL	mg/Kg	J	A
Zirconium	1.87	J	0.920	MDL	5.48	PQL	mg/Kg	J	Z

Sample ID: **SL-840-SA5B-SB-7.0-8.0** ***Collected:*** **1/13/2014 10:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	16300		8.14	MDL	45.2	PQL	mg/Kg	J	A
ANTIMONY	4.52	U	0.836	MDL	4.52	PQL	mg/Kg	UJ	Q
BARIUM	98.3		0.0373	MDL	1.13	PQL	mg/Kg	J	A
BERYLLIUM	0.697	J	0.0757	MDL	1.13	PQL	mg/Kg	J	Z
CALCIUM	4570		3.77	MDL	22.6	PQL	mg/Kg	J	E, A
CHROMIUM	24.6		0.181	MDL	3.39	PQL	mg/Kg	J	A
IRON	27600		4.09	MDL	45.2	PQL	mg/Kg	J	A
LITHIUM	31.0		0.38	MDL	4.5	PQL	mg/Kg	J	A
MAGNESIUM	5880		1.89	MDL	11.3	PQL	mg/Kg	J	A
MANGANESE	257		0.0937	MDL	1.13	PQL	mg/Kg	J	A
MOLYBDENUM	0.322	J	0.192	MDL	2.26	PQL	mg/Kg	U	F
NICKEL	14.2		0.147	MDL	2.26	PQL	mg/Kg	J	A
PHOSPHORUS	499		3.26	MDL	11.3	PQL	mg/Kg	J	Q, A
POTASSIUM	1820		9.42	MDL	113	PQL	mg/Kg	J	A
SODIUM	72.8	J	18.9	MDL	113	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH158 **Laboratory: LL**

EDD Filename: PH158_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method Category: METALS

Method: 6010C **Matrix: SO**

Sample ID: **SL-840-SA5B-SB-7.0-8.0** *Collected:* **1/13/2014 10:45:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.16	J	0.248	MDL	11.3	PQL	mg/Kg	U	B
TITANIUM	1300		0.192	MDL	1.13	PQL	mg/Kg	J	A
VANADIUM	49.3		0.147	MDL	1.13	PQL	mg/Kg	J	A
ZINC	65.0		0.226	MDL	4.52	PQL	mg/Kg	J	A
Zirconium	1.04	J	0.949	MDL	5.65	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020A **Matrix: SO**

Sample ID: **SL-1138-SA5B-SB-4.0-5.0** *Collected:* **1/13/2014 1:40:00** *Analysis Type:* **REA2** *Dilution:* **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.148	J	0.110	MDL	0.441	PQL	mg/Kg	J	Z

Sample ID: **SL-1138-SA5B-SB-4.0-5.0** *Collected:* **1/13/2014 1:40:00** *Analysis Type:* **RES** *Dilution:* **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0540	J	0.0287	MDL	0.221	PQL	mg/Kg	J	Z

Sample ID: **SL-838-SA5B-SB-0.0-0.5** *Collected:* **1/13/2014 1:30:00** *Analysis Type:* **REA2** *Dilution:* **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.145	J	0.104	MDL	0.415	PQL	mg/Kg	J	Z

Sample ID: **SL-838-SA5B-SB-4.0-5.0** *Collected:* **1/13/2014 2:10:00** *Analysis Type:* **REA2** *Dilution:* **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.141	J	0.110	MDL	0.439	PQL	mg/Kg	J	Z

Sample ID: **SL-838-SA5B-SB-4.0-5.0** *Collected:* **1/13/2014 2:10:00** *Analysis Type:* **RES** *Dilution:* **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0415	J	0.0285	MDL	0.220	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH158 **Laboratory: LL**

EDD Filename: PH158_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method Category: METALS

Method: 6020A **Matrix: SO**

Sample ID: SL-840-SA5B-SB-0.0-0.5 **Collected: 1/13/2014 10:00:00** **Analysis Type: REA2** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.161	J	0.106	MDL	0.423	PQL	mg/Kg	J	Z

Sample ID: SL-840-SA5B-SB-0.0-0.5 **Collected: 1/13/2014 10:00:00** **Analysis Type: RES** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0423	J	0.0275	MDL	0.211	PQL	mg/Kg	J	Z

Sample ID: SL-840-SA5B-SB-4.0-5.0 **Collected: 1/13/2014 10:40:00** **Analysis Type: REA2** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.123	J	0.110	MDL	0.438	PQL	mg/Kg	J	Z

Sample ID: SL-840-SA5B-SB-4.0-5.0 **Collected: 1/13/2014 10:40:00** **Analysis Type: RES** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0545	J	0.0285	MDL	0.219	PQL	mg/Kg	J	Z

Sample ID: SL-840-SA5B-SB-7.0-8.0 **Collected: 1/13/2014 10:45:00** **Analysis Type: REA2** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.157	J	0.113	MDL	0.452	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-1138-SA5B-SB-4.0-5.0 **Collected: 1/13/2014 1:40:00** **Analysis Type: RES** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.649	JBQ	0.0442	MDL	5.40	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.190	JBQ	0.0180	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.166	JBQ	0.0260	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.142	JBQ	0.0358	MDL	5.40	PQL	ng/Kg	UJ	B, FD
1,2,3,4,7,8-HXCDF	0.169	JB	0.0288	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.125	JBQ	0.0386	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.151	JBQ	0.0274	MDL	5.40	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH158 **Laboratory: LL**

EDD Filename: PH158_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: **SL-1138-SA5B-SB-4.0-5.0** ***Collected:*** **1/13/2014 1:40:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8,9-HXCDD	0.207	JBQ	0.0376	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.174	JB	0.0313	MDL	5.40	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.314	JQ	0.0506	MDL	5.40	PQL	ng/Kg	J	Z, FD
1,2,3,7,8-PECDF	0.272	JBQ	0.0340	MDL	5.40	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.131	JBQ	0.0283	MDL	5.40	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.206	JB	0.0309	MDL	5.40	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.173	JB	0.0860	MDL	1.08	PQL	ng/Kg	UJ	B, FD
2,3,7,8-TCDF	1.08	U	0.0637	MDL	1.08	PQL	ng/Kg	UJ	FD
OCDF	0.518	JBQ	0.0537	MDL	10.8	PQL	ng/Kg	U	B

Sample ID: **SL-838-SA5B-SB-0.0-0.5** ***Collected:*** **1/13/2014 1:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.430	JB	0.0376	MDL	5.06	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.142	JB	0.0134	MDL	5.06	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0764	JB	0.0181	MDL	5.06	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0413	JBQ	0.0355	MDL	5.06	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0916	JB	0.0271	MDL	5.06	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.230	JBQ	0.0370	MDL	5.06	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.118	JB	0.0263	MDL	5.06	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.253	JB	0.0333	MDL	5.06	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.138	JBQ	0.0295	MDL	5.06	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.189	J	0.0489	MDL	5.06	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.157	JB	0.0284	MDL	5.06	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0979	JB	0.0267	MDL	5.06	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0885	JBQ	0.0264	MDL	5.06	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.131	JQ	0.0762	MDL	1.01	PQL	ng/Kg	J	Z
OCDD	4.59	JB	0.0282	MDL	10.1	PQL	ng/Kg	J	Z
OCDF	0.382	JBQ	0.0417	MDL	10.1	PQL	ng/Kg	U	B

Sample ID: **SL-838-SA5B-SB-4.0-5.0** ***Collected:*** **1/13/2014 2:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.807	JBQ	0.0338	MDL	5.28	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.212	JB	0.0143	MDL	5.28	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH158 **Laboratory: LL**

EDD Filename: PH158_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: **SL-838-SA5B-SB-4.0-5.0** *Collected:* **1/13/2014 2:10:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.109	JBQ	0.0196	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0389	JBQ	0.0291	MDL	5.28	PQL	ng/Kg	UJ	B, FD
1,2,3,4,7,8-HXCDF	0.183	JB	0.0292	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.188	JB	0.0304	MDL	5.28	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.122	JBQ	0.0278	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.250	JBQ	0.0287	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.193	JBQ	0.0304	MDL	5.28	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.184	J	0.0436	MDL	5.28	PQL	ng/Kg	J	Z, FD
1,2,3,7,8-PECDF	0.206	JB	0.0229	MDL	5.28	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0918	JBQ	0.0272	MDL	5.28	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.198	JBQ	0.0214	MDL	5.28	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0707	JBQ	0.0650	MDL	1.06	PQL	ng/Kg	UJ	B, FD
2,3,7,8-TCDF	0.0752	JQ	0.0491	MDL	1.06	PQL	ng/Kg	J	Z, FD
OCDD	9.67	JB	0.0230	MDL	10.6	PQL	ng/Kg	J	Z
OCDF	0.438	JB	0.0449	MDL	10.6	PQL	ng/Kg	U	B

Sample ID: **SL-840-SA5B-SB-0.0-0.5** *Collected:* **1/13/2014 10:00:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2.84	JB	0.0374	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.537	JB	0.0156	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0569	JBQ	0.0197	MDL	5.17	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0638	JBQ	0.0319	MDL	5.17	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0733	JB	0.0238	MDL	5.17	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.321	JBQ	0.0334	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0938	JB	0.0230	MDL	5.17	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.391	JB	0.0324	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.293	JB	0.0247	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.0435	JQ	0.0331	MDL	5.17	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0809	JBQ	0.0237	MDL	5.17	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0637	JBQ	0.0209	MDL	5.17	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0530	JBQ	0.0518	MDL	1.03	PQL	ng/Kg	U	B
OCDF	1.40	JB	0.0330	MDL	10.3	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH158 **Laboratory: LL**

EDD Filename: PH158_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: **SL-840-SA5B-SB-4.0-5.0** ***Collected:*** **1/13/2014 10:40:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.578	JBQ	0.0433	MDL	5.41	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.115	JB	0.0154	MDL	5.41	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0519	JBQ	0.0209	MDL	5.41	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0589	JBQ	0.0213	MDL	5.41	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0623	JB	0.0275	MDL	5.41	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0528	JBQ	0.0200	MDL	5.41	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.113	JBQ	0.0249	MDL	5.41	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.134	JBQ	0.0224	MDL	5.41	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0694	JBQ	0.0246	MDL	5.41	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0212	JBQ	0.0210	MDL	5.41	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0375	JBQ	0.0237	MDL	5.41	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0790	JBQ	0.0722	MDL	1.08	PQL	ng/Kg	U	B
OCDD	4.65	JB	0.0258	MDL	10.8	PQL	ng/Kg	J	Z
OCDF	0.301	JB	0.0441	MDL	10.8	PQL	ng/Kg	U	B

Sample ID: **SL-840-SA5B-SB-7.0-8.0** ***Collected:*** **1/13/2014 10:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.285	JB	0.0333	MDL	5.66	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0857	JBQ	0.0124	MDL	5.66	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0633	JBQ	0.0158	MDL	5.66	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0392	JBQ	0.0210	MDL	5.66	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0671	JBQ	0.0287	MDL	5.66	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0507	JBQ	0.0204	MDL	5.66	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0327	JB	0.0268	MDL	5.66	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0556	JB	0.0208	MDL	5.66	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0439	JBQ	0.0262	MDL	5.66	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0443	JBQ	0.0195	MDL	5.66	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0265	JB	0.0231	MDL	5.66	PQL	ng/Kg	U	B
OCDD	1.77	JB	0.0287	MDL	11.3	PQL	ng/Kg	J	Z
OCDF	0.177	JBQ	0.0429	MDL	11.3	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH158 **Laboratory: LL**

EDD Filename: PH158_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method Category: SVOA

Method: 8082A **Matrix: SO**

Sample ID: **SL-1138-SA5B-SB-4.0-5.0** *Collected:* **1/13/2014 1:40:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1248	7.9	J	3.6	MDL	18	PQL	ug/Kg	J	Z, FD

Sample ID: **SL-838-SA5B-SB-4.0-5.0** *Collected:* **1/13/2014 2:10:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1248	18	U	3.6	MDL	18	PQL	ug/Kg	UJ	FD

Sample ID: **SL-840-SA5B-SB-0.0-0.5** *Collected:* **1/13/2014 10:00:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1248	12	J	3.5	MDL	18	PQL	ug/Kg	J	Z
AROCLOR 1254	8.4	J	4.6	MDL	18	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270D SIM **Matrix: SO**

Sample ID: **SL-1138-SA5B-SB-4.0-5.0** *Collected:* **1/13/2014 1:40:00** *Analysis Type:* **RES-BASE/NEUTRAL** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	1.8	U	0.36	MDL	1.8	PQL	ug/Kg	UJ	FD
BENZO(A)ANTHRACENE	1.8	U	0.72	MDL	1.8	PQL	ug/Kg	UJ	FD
BENZO(A)PYRENE	1.8	U	0.72	MDL	1.8	PQL	ug/Kg	UJ	FD
BENZO(B)FLUORANTHENE	1.8	U	0.72	MDL	1.8	PQL	ug/Kg	UJ	FD
BENZO(G,H,I)PERYLENE	1.8	U	0.72	MDL	1.8	PQL	ug/Kg	UJ	FD
BENZO(K)FLUORANTHENE	1.8	U	0.72	MDL	1.8	PQL	ug/Kg	UJ	FD
CHRYSENE	1.8	U	0.36	MDL	1.8	PQL	ug/Kg	UJ	FD
FLUORANTHENE	1.8	U	0.72	MDL	1.8	PQL	ug/Kg	UJ	FD
INDENO(1,2,3-CD)PYRENE	1.8	U	0.72	MDL	1.8	PQL	ug/Kg	UJ	FD
PHENANTHRENE	1.8	U	0.72	MDL	1.8	PQL	ug/Kg	UJ	FD
PYRENE	1.8	U	0.72	MDL	1.8	PQL	ug/Kg	UJ	FD

Sample ID: **SL-838-SA5B-SB-4.0-5.0** *Collected:* **1/13/2014 2:10:00** *Analysis Type:* **RES-BASE/NEUTRAL** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.49	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z, FD

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH158 **Laboratory: LL**

EDD Filename: PH158_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method Category: SVOA

Method: 8270D SIM **Matrix: SO**

Sample ID: **SL-838-SA5B-SB-4.0-5.0** ***Collected:*** **1/13/2014 2:10:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	3.5		0.72	MDL	1.8	PQL	ug/Kg	J	FD
BENZO(A)PYRENE	3.5		0.72	MDL	1.8	PQL	ug/Kg	J	FD
BENZO(B)FLUORANTHENE	5.7		0.72	MDL	1.8	PQL	ug/Kg	J	FD
BENZO(G,H,I)PERYLENE	1.9		0.72	MDL	1.8	PQL	ug/Kg	J	FD
BENZO(K)FLUORANTHENE	2.2		0.72	MDL	1.8	PQL	ug/Kg	J	FD
CHRYSENE	5.0		0.36	MDL	1.8	PQL	ug/Kg	J	FD
FLUORANTHENE	3.7		0.72	MDL	1.8	PQL	ug/Kg	J	FD
INDENO(1,2,3-CD)PYRENE	1.8	J	0.72	MDL	1.8	PQL	ug/Kg	J	FD
PHENANTHRENE	1.4	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z, FD
PYRENE	4.7		0.72	MDL	1.8	PQL	ug/Kg	J	FD

Sample ID: **SL-840-SA5B-SB-0.0-0.5** ***Collected:*** **1/13/2014 10:00:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	0.75	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	0.83	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.3	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.95	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	8.0	J	6.3	MDL	19	PQL	ug/Kg	J	Z
PHENANTHRENE	1.4	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-840-SA5B-SB-4.0-5.0** ***Collected:*** **1/13/2014 10:40:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	0.58	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
FLUORANTHENE	0.93	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
PYRENE	0.99	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH158 **Laboratory: LL**

EDD Filename: PH158_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Reason Code Legend

Reason Code	*Description*
*#	Professional Judgment
A	ICP Serial Dilution
B	Method Blank Contamination
E	Laboratory Duplicate Precision
F	Field Blank Contamination
FD	Field Duplicate Precision
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Enclosure I

EPA Level III ADR Outliers

(Including Manual Review Outliers)

Quality Control Outlier Reports

PH158

Method Blank Outlier Report

Lab Reporting Batch ID: PH158 **Laboratory: LL**

EDD Filename: PH158_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK0170B371419	1/20/2014 2:19:00 PM	1,2,3,4,6,7,8-HPCDD	0.104 ng/Kg	SL-1138-SA5B-SB-4.0-5.0
		1,2,3,4,6,7,8-HPCDF	0.0794 ng/Kg	SL-838-SA5B-SB-0.0-0.5
		1,2,3,4,7,8,9-HPCDF	0.0738 ng/Kg	SL-838-SA5B-SB-4.0-5.0
		1,2,3,4,7,8-HxCDD	0.0344 ng/Kg	SL-840-SA5B-SB-0.0-0.5
		1,2,3,4,7,8-HXCDF	0.0591 ng/Kg	SL-840-SA5B-SB-4.0-5.0
		1,2,3,6,7,8-HXCDD	0.0345 ng/Kg	SL-840-SA5B-SB-7.0-8.0
		1,2,3,6,7,8-HXCDF	0.0455 ng/Kg	
		1,2,3,7,8,9-HXCDD	0.0671 ng/Kg	
		1,2,3,7,8,9-HXCDF	0.0371 ng/Kg	
		1,2,3,7,8-PECDF	0.0576 ng/Kg	
		2,3,4,6,7,8-HXCDF	0.0389 ng/Kg	
		2,3,4,7,8-PECDF	0.0516 ng/Kg	
		2,3,7,8-TCDD	0.126 ng/Kg	
		OCDD	0.219 ng/Kg	
		OCDF	0.191 ng/Kg	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-1138-SA5B-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.190 ng/Kg	0.190U ng/Kg
SL-1138-SA5B-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.166 ng/Kg	0.166U ng/Kg
SL-1138-SA5B-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.142 ng/Kg	0.142U ng/Kg
SL-1138-SA5B-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.169 ng/Kg	0.169U ng/Kg
SL-1138-SA5B-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDD	0.125 ng/Kg	0.125U ng/Kg
SL-1138-SA5B-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.151 ng/Kg	0.151U ng/Kg
SL-1138-SA5B-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.207 ng/Kg	0.207U ng/Kg
SL-1138-SA5B-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.174 ng/Kg	0.174U ng/Kg
SL-1138-SA5B-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.272 ng/Kg	0.272U ng/Kg
SL-1138-SA5B-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.131 ng/Kg	0.131U ng/Kg
SL-1138-SA5B-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.206 ng/Kg	0.206U ng/Kg
SL-1138-SA5B-SB-4.0-5.0(RES)	2,3,7,8-TCDD	0.173 ng/Kg	0.173U ng/Kg
SL-1138-SA5B-SB-4.0-5.0(RES)	OCDF	0.518 ng/Kg	0.518U ng/Kg
SL-838-SA5B-SB-0.0-0.5(RES)	1,2,3,4,6,7,8-HPCDD	0.430 ng/Kg	0.430U ng/Kg
SL-838-SA5B-SB-0.0-0.5(RES)	1,2,3,4,6,7,8-HPCDF	0.142 ng/Kg	0.142U ng/Kg
SL-838-SA5B-SB-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0764 ng/Kg	0.0764U ng/Kg
SL-838-SA5B-SB-0.0-0.5(RES)	1,2,3,4,7,8-HxCDD	0.0413 ng/Kg	0.0413U ng/Kg
SL-838-SA5B-SB-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.0916 ng/Kg	0.0916U ng/Kg
SL-838-SA5B-SB-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.118 ng/Kg	0.118U ng/Kg
SL-838-SA5B-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDD	0.253 ng/Kg	0.253U ng/Kg
SL-838-SA5B-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.138 ng/Kg	0.138U ng/Kg
SL-838-SA5B-SB-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.157 ng/Kg	0.157U ng/Kg
SL-838-SA5B-SB-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.0979 ng/Kg	0.0979U ng/Kg
SL-838-SA5B-SB-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.0885 ng/Kg	0.0885U ng/Kg
SL-838-SA5B-SB-0.0-0.5(RES)	OCDF	0.382 ng/Kg	0.382U ng/Kg
SL-838-SA5B-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.212 ng/Kg	0.212U ng/Kg
SL-838-SA5B-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.109 ng/Kg	0.109U ng/Kg
SL-838-SA5B-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.0389 ng/Kg	0.0389U ng/Kg
SL-838-SA5B-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.183 ng/Kg	0.183U ng/Kg

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Method Blank Outlier Report

Lab Reporting Batch ID: PH158 **Laboratory: LL**

EDD Filename: PH158_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-838-SA5B-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.122 ng/Kg	0.122U ng/Kg
SL-838-SA5B-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.250 ng/Kg	0.250U ng/Kg
SL-838-SA5B-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.206 ng/Kg	0.206U ng/Kg
SL-838-SA5B-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0918 ng/Kg	0.0918U ng/Kg
SL-838-SA5B-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.198 ng/Kg	0.198U ng/Kg
SL-838-SA5B-SB-4.0-5.0(RES)	2,3,7,8-TCDD	0.0707 ng/Kg	0.0707U ng/Kg
SL-838-SA5B-SB-4.0-5.0(RES)	OCDF	0.438 ng/Kg	0.438U ng/Kg
SL-840-SA5B-SB-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0569 ng/Kg	0.0569U ng/Kg
SL-840-SA5B-SB-0.0-0.5(RES)	1,2,3,4,7,8-HxCDD	0.0638 ng/Kg	0.0638U ng/Kg
SL-840-SA5B-SB-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.0733 ng/Kg	0.0733U ng/Kg
SL-840-SA5B-SB-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.0938 ng/Kg	0.0938U ng/Kg
SL-840-SA5B-SB-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.0809 ng/Kg	0.0809U ng/Kg
SL-840-SA5B-SB-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.0637 ng/Kg	0.0637U ng/Kg
SL-840-SA5B-SB-0.0-0.5(RES)	2,3,7,8-TCDD	0.0530 ng/Kg	0.0530U ng/Kg
SL-840-SA5B-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.115 ng/Kg	0.115U ng/Kg
SL-840-SA5B-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0519 ng/Kg	0.0519U ng/Kg
SL-840-SA5B-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0589 ng/Kg	0.0589U ng/Kg
SL-840-SA5B-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDD	0.0623 ng/Kg	0.0623U ng/Kg
SL-840-SA5B-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0528 ng/Kg	0.0528U ng/Kg
SL-840-SA5B-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.113 ng/Kg	0.113U ng/Kg
SL-840-SA5B-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.134 ng/Kg	0.134U ng/Kg
SL-840-SA5B-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0694 ng/Kg	0.0694U ng/Kg
SL-840-SA5B-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0212 ng/Kg	0.0212U ng/Kg
SL-840-SA5B-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0375 ng/Kg	0.0375U ng/Kg
SL-840-SA5B-SB-4.0-5.0(RES)	2,3,7,8-TCDD	0.0790 ng/Kg	0.0790U ng/Kg
SL-840-SA5B-SB-4.0-5.0(RES)	OCDF	0.301 ng/Kg	0.301U ng/Kg
SL-840-SA5B-SB-7.0-8.0(RES)	1,2,3,4,6,7,8-HPCDD	0.285 ng/Kg	0.285U ng/Kg
SL-840-SA5B-SB-7.0-8.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0857 ng/Kg	0.0857U ng/Kg
SL-840-SA5B-SB-7.0-8.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0633 ng/Kg	0.0633U ng/Kg
SL-840-SA5B-SB-7.0-8.0(RES)	1,2,3,4,7,8-HXCDF	0.0392 ng/Kg	0.0392U ng/Kg
SL-840-SA5B-SB-7.0-8.0(RES)	1,2,3,6,7,8-HXCDD	0.0671 ng/Kg	0.0671U ng/Kg
SL-840-SA5B-SB-7.0-8.0(RES)	1,2,3,6,7,8-HXCDF	0.0507 ng/Kg	0.0507U ng/Kg
SL-840-SA5B-SB-7.0-8.0(RES)	1,2,3,7,8,9-HXCDD	0.0327 ng/Kg	0.0327U ng/Kg
SL-840-SA5B-SB-7.0-8.0(RES)	1,2,3,7,8,9-HXCDF	0.0556 ng/Kg	0.0556U ng/Kg
SL-840-SA5B-SB-7.0-8.0(RES)	1,2,3,7,8-PECDF	0.0439 ng/Kg	0.0439U ng/Kg
SL-840-SA5B-SB-7.0-8.0(RES)	2,3,4,6,7,8-HXCDF	0.0443 ng/Kg	0.0443U ng/Kg
SL-840-SA5B-SB-7.0-8.0(RES)	2,3,4,7,8-PECDF	0.0265 ng/Kg	0.0265U ng/Kg
SL-840-SA5B-SB-7.0-8.0(RES)	OCDF	0.177 ng/Kg	0.177U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: PH158 **Laboratory: LL**

EDD Filename: PH158_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: **6010C**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P01437AB220653	1/15/2014 6:53:00 AM	CALCIUM	4.67 mg/Kg	SL-1138-SA5B-SB-4.0-5.0
		MAGNESIUM	4.40 mg/Kg	SL-838-SA5B-SB-0.0-0.5
		TIN	1.59 mg/Kg	SL-838-SA5B-SB-4.0-5.0
		ZINC	0.462 mg/Kg	SL-840-SA5B-SB-0.0-0.5
				SL-840-SA5B-SB-4.0-5.0
				SL-840-SA5B-SB-7.0-8.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-1138-SA5B-SB-4.0-5.0(RES)	TIN	3.09 mg/Kg	3.09U mg/Kg
SL-838-SA5B-SB-0.0-0.5(RES)	TIN	2.87 mg/Kg	2.87U mg/Kg
SL-838-SA5B-SB-4.0-5.0(RES)	TIN	2.98 mg/Kg	2.98U mg/Kg
SL-840-SA5B-SB-0.0-0.5(RES)	TIN	2.68 mg/Kg	2.68U mg/Kg
SL-840-SA5B-SB-4.0-5.0(RES)	TIN	2.69 mg/Kg	2.69U mg/Kg
SL-840-SA5B-SB-7.0-8.0(RES)	TIN	3.16 mg/Kg	3.16U mg/Kg

Field Blank Outlier Report

Lab Reporting Batch ID: PH158 **Laboratory: LL**

EDD Filename: PH158_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: **6010C**
Matrix: **SO**

Field Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
FB-041613(REA2/TOT)	4/16/2013 3:15:00 PM	MOLYBDENUM TIN	0.0132 mg/L 0.0029 mg/L	SL-1138-SA5B-SB-4.0-5.0 SL-838-SA5B-SB-0.0-0.5 SL-838-SA5B-SB-4.0-5.0 SL-840-SA5B-SB-0.0-0.5 SL-840-SA5B-SB-4.0-5.0 SL-840-SA5B-SB-7.0-8.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-1138-SA5B-SB-4.0-5.0(RES)	MOLYBDENUM	0.217 mg/Kg	0.217U mg/Kg
SL-838-SA5B-SB-0.0-0.5(RES)	MOLYBDENUM	0.255 mg/Kg	0.255U mg/Kg
SL-838-SA5B-SB-4.0-5.0(RES)	MOLYBDENUM	0.660 mg/Kg	0.660U mg/Kg
SL-840-SA5B-SB-0.0-0.5(RES)	MOLYBDENUM	0.592 mg/Kg	0.592U mg/Kg
SL-840-SA5B-SB-4.0-5.0(RES)	MOLYBDENUM	0.571 mg/Kg	0.571U mg/Kg
SL-840-SA5B-SB-7.0-8.0(RES)	MOLYBDENUM	0.322 mg/Kg	0.322U mg/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH158 **Laboratory: LL**

EDD Filename: PH158_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: **6010C**
Matrix: **SO**

QC Sample ID (Associated Samples)	*Compound*	*MS %R*	*MSD %R*	*%R Limits*	*RPD (Limits)*	*Affected Compounds*	*Flag*
SL-838-SA5B-SB-4.0-5.0MS (TOT) **SL-838-SA5B-SB-4.0-5.0MSD (TOT)** (SL-1138-SA5B-SB-4.0-5.0 SL-838-SA5B-SB-0.0-0.5 SL-838-SA5B-SB-4.0-5.0 SL-840-SA5B-SB-0.0-0.5 SL-840-SA5B-SB-4.0-5.0 SL-840-SA5B-SB-7.0-8.0)	ALUMINUM CALCIUM MAGNESIUM MANGANESE PHOSPHORUS TITANIUM	1606 223 180 135 128 266	1545 - 142 - - 264	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - - -	ALUMINUM CALCIUM MAGNESIUM MANGANESE PHOSPHORUS TITANIUM	J (all detects) Al, Ca, Mg, Mn, Ti, No Qual, >4x
SL-838-SA5B-SB-4.0-5.0MS (TOT) **SL-838-SA5B-SB-4.0-5.0MSD (TOT)** (SL-1138-SA5B-SB-4.0-5.0 SL-838-SA5B-SB-0.0-0.5 SL-838-SA5B-SB-4.0-5.0 SL-840-SA5B-SB-0.0-0.5 SL-840-SA5B-SB-4.0-5.0 SL-840-SA5B-SB-7.0-8.0)	IRON	51	-112	75.00-125.00	-	IRON	No Qual, >4x
SL-838-SA5B-SB-4.0-5.0MS (TOT) **SL-838-SA5B-SB-4.0-5.0MSD (TOT)** (SL-1138-SA5B-SB-4.0-5.0 SL-838-SA5B-SB-0.0-0.5 SL-838-SA5B-SB-4.0-5.0 SL-840-SA5B-SB-0.0-0.5 SL-840-SA5B-SB-4.0-5.0 SL-840-SA5B-SB-7.0-8.0)	ANTIMONY	70	72	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects)

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Lab Duplicate Outlier Report

Lab Reporting Batch ID: PH158 **Laboratory: LL**

EDD Filename: PH158_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: 6010C
Matrix: SO

QC Sample ID (Associated Sample ID)	*Analyte*	*Sample RPD*	*eQAPP RPD*	*Flag*
SL-838-SA5B-SB-4.0-5.0DUP	CALCIUM	78	20.00	
(TOT)	MOLYBDENUM	46	20.00	J (all detects)
(SL-1138-SA5B-SB-4.0-5.0	Zirconium	51	20.00	UJ (all non-detects)
SL -838-SA5B-SB-0.0-0.5				
SL -838-SA5B-SB-4.0-5.0				
SL -840-SA5B-SB-0.0-0.5				Mo, Zr, No Qual,
SL -840-SA5B-SB-4.0-5.0				OK by Difference
SL -840-SA5B-SB-7.0-8.0)				

Field Duplicate RPD Report

Lab Reporting Batch ID: PH158 **Laboratory: LL**

EDD Filename: PH158_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-838-SA5B-SB-4.0-5.0	SL-1138-SA5B-SB-4.0-5.0			
MOISTURE	8.9	9.3	4		No Qualifiers Applied

Method: 1613B
Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-838-SA5B-SB-4.0-5.0	SL-1138-SA5B-SB-4.0-5.0			
1,2,3,4,6,7,8-HPCDD	0.807	0.649	22	50.00	
1,2,3,4,6,7,8-HPCDF	0.212	0.190	11	50.00	
1,2,3,4,7,8,9-HPCDF	0.109	0.166	41	50.00	
1,2,3,4,7,8-HXCDF	0.183	0.169	8	50.00	
1,2,3,6,7,8-HXCDD	0.188	0.125	40	50.00	
1,2,3,6,7,8-HXCDF	0.122	0.151	21	50.00	
1,2,3,7,8,9-HXCDD	0.250	0.207	19	50.00	
1,2,3,7,8,9-HXCDF	0.193	0.174	10	50.00	No Qualifiers Applied
1,2,3,7,8-PECDF	0.206	0.272	28	50.00	
2,3,4,6,7,8-HXCDF	0.0918	0.131	35	50.00	
2,3,4,7,8-PECDF	0.198	0.206	4	50.00	
OCDD	9.67	11.1	14	50.00	
OCDF	0.438	0.518	17	50.00	
1,2,3,4,7,8-HxCDD	0.0389	0.142	114	50.00	
1,2,3,7,8-PECDD	0.184	0.314	52	50.00	J(all detects)
2,3,7,8-TCDD	0.0707	0.173	84	50.00	UJ(all non-detects)
2,3,7,8-TCDF	0.0752	1.08 U	200	50.00	

Method: 6010C
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-838-SA5B-SB-4.0-5.0 (TOT)	SL-1138-SA5B-SB-4.0-5.0 (TOT)			
ALUMINUM	16400	17500	6	50.00	
ARSENIC	5.05	4.29	16	50.00	
BARIUM	108	106	2	50.00	
BERYLLIUM	0.610	0.664	8	50.00	
BORON	1.17	0.989	17	50.00	
CHROMIUM	19.3	18.5	4	50.00	
COBALT	4.50	3.93	14	50.00	
COPPER	9.30	8.18	13	50.00	
IRON	20300	19800	2	50.00	
LEAD	7.81	7.75	1	50.00	
LITHIUM	21.4	19.4	10	50.00	
MAGNESIUM	4070	3770	8	50.00	No Qualifiers Applied
MANGANESE	271	277	2	50.00	
NICKEL	10.8	10.8	0	50.00	
PHOSPHORUS	227	149	41	50.00	
POTASSIUM	2330	1660	34	50.00	
SODIUM	148	96.2	42	50.00	
TIN	2.98	3.09	4	50.00	
TITANIUM	1150	1100	4	50.00	
VANADIUM	37.5	36.7	2	50.00	
ZINC	47.0	43.8	7	50.00	
Zirconium	1.89	1.39	30	50.00	
CALCIUM	4330	2460	55	50.00	J(all detects)
MOLYBDENUM	0.660	0.217	101	50.00	

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Field Duplicate RPD Report

Lab Reporting Batch ID: PH158 **Laboratory: LL**

EDD Filename: PH158_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: 6020A
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-838-SA5B-SB-4.0-5.0 (TOT)	SL-1138-SA5B-SB-4.0-5.0 (TOT)			
SELENIUM	0.141	0.148	5	50.00	No Qualifiers Applied
SILVER	0.0415	0.0540	26	50.00	
STRONTIUM	23.2	22.8	2	50.00	
THALLIUM	0.245	0.237	3	50.00	

Method: 8082A
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-838-SA5B-SB-4.0-5.0	SL-1138-SA5B-SB-4.0-5.0			
AROCLOR 1248	18 U	7.9	200	50.00	J(all detects) UJ(all non-detects)

Method: 8270D SIM
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-838-SA5B-SB-4.0-5.0	SL-1138-SA5B-SB-4.0-5.0			
ANTHRACENE	0.49	1.8 U	200	50.00	J(all detects) UJ(all non-detects)
BENZO(A)ANTHRACENE	3.5	1.8 U	200	50.00	
BENZO(A)PYRENE	3.5	1.8 U	200	50.00	
BENZO(B)FLUORANTHENE	5.7	1.8 U	200	50.00	
BENZO(G,H,I)PERYLENE	1.9	1.8 U	200	50.00	
BENZO(K)FLUORANTHENE	2.2	1.8 U	200	50.00	
CHRYSENE	5.0	1.8 U	200	50.00	
FLUORANTHENE	3.7	1.8 U	200	50.00	
INDENO(1,2,3-CD)PYRENE	1.8	1.8 U	200	50.00	
PHENANTHRENE	1.4	1.8 U	200	50.00	
PYRENE	4.7	1.8 U	200	50.00	

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-838-SA5B-SB-4.0-5.0	SL-1138-SA5B-SB-4.0-5.0			
PH	7.32	7.24	1	50.00	No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: PH158 **Laboratory: LL**

EDD Filename: PH158_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-1138-SA5B-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.649	5.40	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.190	5.40	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.166	5.40	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.142	5.40	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.169	5.40	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.125	5.40	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.151	5.40	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.207	5.40	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.174	5.40	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.314	5.40	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.272	5.40	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.131	5.40	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.206	5.40	PQL	ng/Kg	
	2,3,7,8-TCDD	JB	0.173	1.08	PQL	ng/Kg	
	OCDF	JBQ	0.518	10.8	PQL	ng/Kg	
SL-838-SA5B-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	0.430	5.06	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.142	5.06	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0764	5.06	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0413	5.06	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0916	5.06	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.230	5.06	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.118	5.06	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.253	5.06	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.138	5.06	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	J	0.189	5.06	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.157	5.06	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0979	5.06	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0885	5.06	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.131	1.01	PQL	ng/Kg	
	OCDD	JB	4.59	10.1	PQL	ng/Kg	
	OCDF	JBQ	0.382	10.1	PQL	ng/Kg	
SL-838-SA5B-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.807	5.28	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.212	5.28	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.109	5.28	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0389	5.28	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.183	5.28	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.188	5.28	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.122	5.28	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.250	5.28	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.193	5.28	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	J	0.184	5.28	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.206	5.28	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0918	5.28	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.198	5.28	PQL	ng/Kg	
	2,3,7,8-TCDD	JBQ	0.0707	1.06	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0752	1.06	PQL	ng/Kg	
	OCDD	JB	9.67	10.6	PQL	ng/Kg	
	OCDF	JB	0.438	10.6	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH158 **Laboratory: LL**

EDD Filename: PH158_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-840-SA5B-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	2.84	5.17	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.537	5.17	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0569	5.17	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0638	5.17	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0733	5.17	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.321	5.17	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0938	5.17	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.391	5.17	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.293	5.17	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.0435	5.17	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0809	5.17	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0637	5.17	PQL	ng/Kg	
	2,3,7,8-TCDD	JBQ	0.0530	1.03	PQL	ng/Kg	
	OCDF	JB	1.40	10.3	PQL	ng/Kg	
SL-840-SA5B-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.578	5.41	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.115	5.41	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0519	5.41	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0589	5.41	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.0623	5.41	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0528	5.41	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.113	5.41	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.134	5.41	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0694	5.41	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0212	5.41	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0375	5.41	PQL	ng/Kg	
	2,3,7,8-TCDD	JBQ	0.0790	1.08	PQL	ng/Kg	
	OCDD	JB	4.65	10.8	PQL	ng/Kg	
	OCDF	JB	0.301	10.8	PQL	ng/Kg	
SL-840-SA5B-SB-7.0-8.0	1,2,3,4,6,7,8-HPCDD	JB	0.285	5.66	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0857	5.66	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0633	5.66	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0392	5.66	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0671	5.66	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0507	5.66	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0327	5.66	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.0556	5.66	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0439	5.66	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0443	5.66	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0265	5.66	PQL	ng/Kg	
	OCDD	JB	1.77	11.3	PQL	ng/Kg	
	OCDF	JBQ	0.177	11.3	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH158 **Laboratory: LL**

EDD Filename: PH158_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: 6010C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-1138-SA5B-SB-4.0-5.0	ARSENIC	J	4.29	4.41	PQL	mg/Kg	J (all detects)
	BERYLLIUM	J	0.664	1.10	PQL	mg/Kg	
	BORON	J	0.989	11.0	PQL	mg/Kg	
	MOLYBDENUM	J	0.217	2.21	PQL	mg/Kg	
	SODIUM	J	96.2	110	PQL	mg/Kg	
	TIN	J	3.09	11.0	PQL	mg/Kg	
	Zirconium	J	1.39	5.51	PQL	mg/Kg	
SL-838-SA5B-SB-0.0-0.5	BERYLLIUM	J	0.534	1.04	PQL	mg/Kg	J (all detects)
	MOLYBDENUM	J	0.255	2.08	PQL	mg/Kg	
	TIN	J	2.87	10.4	PQL	mg/Kg	
	Zirconium	J	0.890	5.19	PQL	mg/Kg	
SL-838-SA5B-SB-4.0-5.0	BERYLLIUM	J	0.610	1.10	PQL	mg/Kg	J (all detects)
	BORON	J	1.17	11.0	PQL	mg/Kg	
	MOLYBDENUM	J	0.660	2.20	PQL	mg/Kg	
	TIN	J	2.98	11.0	PQL	mg/Kg	
	Zirconium	J	1.89	5.49	PQL	mg/Kg	
SL-840-SA5B-SB-0.0-0.5	BERYLLIUM	J	0.588	1.06	PQL	mg/Kg	J (all detects)
	BORON	J	1.51	10.6	PQL	mg/Kg	
	MOLYBDENUM	J	0.592	2.11	PQL	mg/Kg	
	TIN	J	2.68	10.6	PQL	mg/Kg	
	Zirconium	J	2.07	5.28	PQL	mg/Kg	
SL-840-SA5B-SB-4.0-5.0	BERYLLIUM	J	0.671	1.10	PQL	mg/Kg	J (all detects)
	BORON	J	0.927	11.0	PQL	mg/Kg	
	MOLYBDENUM	J	0.571	2.19	PQL	mg/Kg	
	SODIUM	J	78.5	110	PQL	mg/Kg	
	TIN	J	2.69	11.0	PQL	mg/Kg	
	Zirconium	J	1.87	5.48	PQL	mg/Kg	
SL-840-SA5B-SB-7.0-8.0	BERYLLIUM	J	0.697	1.13	PQL	mg/Kg	J (all detects)
	MOLYBDENUM	J	0.322	2.26	PQL	mg/Kg	
	SODIUM	J	72.8	113	PQL	mg/Kg	
	TIN	J	3.16	11.3	PQL	mg/Kg	
	Zirconium	J	1.04	5.65	PQL	mg/Kg	

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-1138-SA5B-SB-4.0-5.0	SELENIUM	J	0.148	0.441	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0540	0.221	PQL	mg/Kg	
SL-838-SA5B-SB-0.0-0.5	SELENIUM	J	0.145	0.415	PQL	mg/Kg	J (all detects)
SL-838-SA5B-SB-4.0-5.0	SELENIUM	J	0.141	0.439	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0415	0.220	PQL	mg/Kg	
SL-840-SA5B-SB-0.0-0.5	SELENIUM	J	0.161	0.423	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0423	0.211	PQL	mg/Kg	
SL-840-SA5B-SB-4.0-5.0	SELENIUM	J	0.123	0.438	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0545	0.219	PQL	mg/Kg	
SL-840-SA5B-SB-7.0-8.0	SELENIUM	J	0.157	0.452	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: PH158 **Laboratory: LL**

EDD Filename: PH158_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: 8082A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-1138-SA5B-SB-4.0-5.0	AROCLOR 1248	J	7.9	18	PQL	ug/Kg	J (all detects)
SL-840-SA5B-SB-0.0-0.5	AROCLOR 1248	J	12	18	PQL	ug/Kg	J (all detects)
	AROCLOR 1254	J	8.4	18	PQL	ug/Kg	

Method: 8270D SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-838-SA5B-SB-4.0-5.0	ANTHRACENE	J	0.49	1.8	PQL	ug/Kg	J (all detects)
	PHENANTHRENE	J	1.4	1.8	PQL	ug/Kg	
SL-840-SA5B-SB-0.0-0.5	BENZO(A)ANTHRACENE	J	0.75	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	0.83	1.7	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	1.3	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.95	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	8.0	19	PQL	ug/Kg	
	PHENANTHRENE	J	1.4	1.7	PQL	ug/Kg	
SL-840-SA5B-SB-4.0-5.0	CHRYSENE	J	0.58	1.8	PQL	ug/Kg	J (all detects)
	FLUORANTHENE	J	0.93	1.8	PQL	ug/Kg	
	PYRENE	J	0.99	1.8	PQL	ug/Kg	

Enclosure II

EPA Level IV Data Validation Reports

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	January 13, 2014
LDC Report Date:	March 25, 2014
Matrix:	Soil
Parameters:	Semivolatile Organic Compounds
Validation Level:	Level IV
Laboratory:	Eurofins
Sample Delivery Group (SDG):	PH158

Sample Identification

SL-840-SA5B-SB-0.0-0.5
SL-840-SA5B-SB-4.0-5.0
SL-840-SA5B-SB-7.0-8.0
SL-838-SA5B-SB-0.0-0.5
SL-838-SA5B-SB-4.0-5.0
SL-1138-SA5B-SB-4.0-5.0
SL-838-SA5B-SB-4.0-5.0MS
SL-838-SA5B-SB-4.0-5.0MSD

Introduction

This data review covers 8 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270D using Selected Ion Monitoring (SIM) for Semivolatile Organic Carbons.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals. All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile organic compounds were found in the method blanks.

Sample EB-011414 (from SDG PH159) was identified as an equipment blank. No semivolatile organic compounds were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB-01141	1/14/14	Bis(2-ethylhexyl)phthalate Di-n-butylphthalate Diethylphthalate	0.090 ug/L 0.17 ug/L 0.44 ug/L	All samples in SDG PH158

Sample FB-041613 (from SDG PH032) was identified as a field blank. No semivolatile organic compounds were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
FB-041613	4/16/13	2-Methylnaphthalene Bis(2-ethylhexyl)phthalate Di-n-butylphthalate	0.012 ug/L 0.25 ug/L 0.11 ug/L	All samples in SDG PH158

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated field blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG PH158	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples SL-838-SA5B-SB-4.0-5.0 and SL-1138-SA5B-SB-4.0-5.0 were identified as field duplicates. No semivolatile organic compounds were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/Kg)		RPD (Limits)	Flags	A or P
	SL-838-SA5B-SB-4.0-5.0	SL-1138-SA5B-SB-4.0-5.0			
Anthracene	0.49	1.8U	200 (≤50)	J (all detects) UJ (all non-detects)	A
Benzo(a)anthracene	3.5	1.8U	200 (≤50)	J (all detects) UJ (all non-detects)	A
Benzo(a)pyrene	3.5	1.8U	200 (≤50)	J (all detects) UJ (all non-detects)	A
Benzo(b)fluoranthene	5.7	1.8U	200 (≤50)	J (all detects) UJ (all non-detects)	A
Benzo(g,h,i)perylene	1.9	1.8U	200 (≤50)	J (all detects) UJ (all non-detects)	A
Benzo(k)fluoranthene	2.2	1.8U	200 (≤50)	J (all detects) UJ (all non-detects)	A

Compound	Concentration (ug/Kg)		RPD (Limits)	Flags	A or P
	SL-838-SA5B-SB-4.0-5.0	SL-1138-SA5B-SB-4.0-5.0			
Chrysene	5.0	1.8U	200 (≤50)	J (all detects) UJ (all non-detects)	A
Fluoranthene	3.7	1.8U	200 (≤50)	J (all detects) UJ (all non-detects)	A
Indeno(1,2,3-cd)pyrene	1.8	1.8U	200 (≤50)	J (all detects) UJ (all non-detects)	A
Phenanthrene	1.4	1.8U	200 (≤50)	J (all detects) UJ (all non-detects)	A
Pyrene	4.7	1.8U	200 (≤50)	J (all detects) UJ (all non-detects)	A

Santa Susana Field Laboratory
Semivolatile Organic Compounds - Data Qualification Summary - SDG PH158

SDG	Sample	Compound	Flag	A or P	Reason (Code)
PH158	SL-840-SA5B-SB-0.0-0.5 SL-840-SA5B-SB-4.0-5.0 SL-840-SA5B-SB-7.0-8.0 SL-838-SA5B-SB-0.0-0.5 SL-838-SA5B-SB-4.0-5.0 SL-1138-SA5B-SB-4.0-5.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)
PH158	SL-838-SA5B-SB-4.0-5.0 SL-1138-SA5B-SB-4.0-5.0	Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene Fluoranthene Indeno(1,2,3-cd)pyrene Phenanthrene Pyrene	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
Semivolatile organic compounds - Laboratory Blank Data Qualification Summary - SDG PH158

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Semivolatile Organic Compounds - Field Blank Data Qualification Summary - SDG PH158

No Sample Data Qualified in this SDG

LDC #: 31413A2b **VALIDATION COMPLETENESS WORKSHEET** Date: 3/25/14
SDG #: PH158 Level IV Page: 1 of 1
Laboratory: Eurofins Lancaster Laboratories Reviewer: BR
2nd Reviewer: SM

METHOD: GC/MS ~~Polynuclear Aromatic Hydrocarbons~~ SVOCs (EPA SW 846 Method 8270~~C~~D-SIM)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 1/13/14
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	RSD ≤ 30%
IV.	Continuing calibration/ICV	A	|CV| |CW| ≤ 25%
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	FD = 5 + 6

XVII.	Field blanks	SW	EB = EB-011414 (SDG # PH159)
			FB = FB-011613 (SDG # PH032)

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: SOIL

1	SL-840-SA5B-SB-0.0-0.5	11		21		31	SBLKLC016-MB
2	SL-840-SA5B-SB-4.0-5.0	12		22		32	
3	SL-840-SA5B-SB-7.0-8.0	13		23		33	
4	SL-838-SA5B-SB-0.0-0.5	14		24		34	
5	SL-838-SA5B-SB-4.0-5.0	15		25		35	
6	SL-1138-SA5B-SB-4.0-5.0	16		26		36	
7	SL-838-SA5B-SB-4.0-5.0MS	17		27		37	
8	SL-838-SA5B-SB-4.0-5.0MSD	18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 31413A26

VALIDATION FINDINGS CHECKLIST

Reviewer: BR
2nd Reviewer: SM

Method: Semivolatiles (EPA SW 846 Method 8270D)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS Instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) ≥ 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	✓			
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/RLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?		✓		
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.	✓			
XVII. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.	✓			

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS SVOA

A. Phenol	T. 4-Chloroaniline	MM. 4-Chlorophenyl-phenyl ether	FFF. Di-n-octylphthalate	YYY. 2,3,5-Trimethylnaphthalene
B. Bis (2-chloroethyl) ether	U. Hexachlorobutadiene	NN. Fluorene	GGG. Benzo(b)fluoranthene	ZZZ. Perylene
C. 2-Chlorophenol	V. 4-Chloro-3-methylphenol	OO. 4-Nitroaniline	HHH. Benzo(k)fluoranthene	AAAA. Dibenzothiophene
D. 1,3-Dichlorobenzene	W. 2-Methylnaphthalene	PP. 4,6-Dinitro-2-methylphenol	III. Benzo(a)pyrene	BBBB. Benzo(a)fluoranthene
E. 1,4-Dichlorobenzene	X. Hexachlorocyclopentadiene	QQ. N-Nitrosodiphenylamine	JJJ. Indeno(1,2,3-cd)pyrene	CCCC. Benzo(b)fluorene
F. 1,2-Dichlorobenzene	Y. 2,4,6-Trichlorophenol	RR. 4-Bromophenyl-phenylether	KKK. Dibenz(a,h)anthracene	DDDD. cis/trans-Decalin
G. 2-Methylphenol	Z. 2,4,5-Trichlorophenol	SS. Hexachlorobenzene	LLL. Benzo(g,h,i)perylene	EEEE. Biphenyl
H. 2,2'-Oxybis(1-chloropropane)	AA. 2-Chloronaphthalene	TT. Pentachlorophenol	MMM. Bis(2-Chloroisopropyl)ether	FFFF. Retene
I. 4-Methylphenol	BB. 2-Nitroaniline	UU. Phenanthrene	NNN. Aniline	GGGG. C30-Hopane
J. N-Nitroso-di-n-propylamine	CC. Dimethylphthalate	VV. Anthracene	OOO. N-Nitrosodimethylamine	HHHH. 1-Methylphenanthrene
K. Hexachloroethane	DD. Acenaphthylene	WW. Carbazole	PPP. Benzoic Acid	IIII. 1,4-Dioxane
L. Nitrobenzene	EE. 2,6-Dinitrotoluene	XX. Di-n-butylphthalate	QQQ. Benzyl alcohol	JJJJ. Acetophenone
M. Isophorone	FF. 3-Nitroaniline	YY. Fluoranthene	RRR. Pyridine	KKKK. Atrazine
N. 2-Nitrophenol	GG. Acenaphthene	ZZ. Pyrene	SSS. Benzidine	LLLL. Benzaldehyde
O. 2,4-Dimethylphenol	HH. 2,4-Dinitrophenol	AAA. Butylbenzylphthalate	TTT. 1-Methylnaphthalene	MMMM. Caprolactam
P. Bis(2-chloroethoxy)methane	II. 4-Nitrophenol	BBB. 3,3'-Dichlorobenzidine	UUU.Benzo(b)thiophene	NNNN.
Q. 2,4-Dichlorophenol	JJ. Dibenzofuran	CCC. Benzo(a)anthracene	VVV.Benzonaphthothiophene	OOOO.
R. 1,2,4-Trichlorobenzene	KK. 2,4-Dinitrotoluene	DDD. Chrysene	WWW.Benzo(e)pyrene	PPPP.
S. Naphthalene	LL. Diethylphthalate	EEE. Bis(2-ethylhexyl)phthalate	XXX. 2,6-Dimethylnaphthalene	QQQQ.

LDC #: 31413A26

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: BR
2nd Reviewer: SM

METHOD: GC/MS BNA (EPA SW 846 Method 8270D)

Y N N/A Were field blanks identified in this SDG?
Y N N/A Were target compounds detected in the field blanks?

PB = FB-041613 (SDG# PH032)

Blank units: ug/L **Associated sample units:** ug/kg
Sampling date: 4/16/13
Field blank type: (circle one) Field Blank / Rinsate / Other: _____ Associated Samples: All (ND + 75x)

Compound	Blank ID	Sample Identification								
5x/10x	FB									
0.06 W	0.012									
2.5 EEE	0.25									
1.1 XX	0.11									

EB = EB-011414 (SDG# PH159)

Blank units: ug/L **Associated sample units:** ug/kg
Sampling date: 1/14/14
Field blank type: (circle one) Field Blank / Rinsate / ~~Other~~: EB Associated Samples: All (ND + 75x)

Compound	Blank ID	Sample Identification								
5x/10x	EB									
0.90 EEE	0.090									
1.7 XX	0.17									
4.4 LL	0.44									

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Common contaminants such as the phthalates and TICs noted above that were detected in samples within ten times the associated field blank concentration were qualified as not detected, "U". Other contaminants within five times the field blank concentration were also qualified as not detected, "U".

LDC#: 31413A2b

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: BK
2nd Reviewer: SM

METHOD: GC MS SVOCs (EPA SW 846 Method 8270D)

(Y) N NA Were field duplicate pairs identified in this SDG?
(Y) N NA Were target analytes detected in the field duplicate pairs?

Compound	Concentration (ug/kg)		RPD (≤50%)	Qualifications (Parent Only)
	5	6		
VV	0.49	1.8U	200	J/UJ/A (CODE: FD)
CCC	3.5	1.8U	200	J/UJ/A (CODE: FD)
III	3.5	1.8U	200	J/UJ/A (CODE: FD)
GGG	5.7	1.8U	200	J/UJ/A (CODE: FD)
LLL	1.9	1.8U	200	J/UJ/A (CODE: FD)
HHH	2.2	1.8U	200	J/UJ/A (CODE: FD)
DDD	5.0	1.8U	200	J/UJ/A (CODE: FD)
YY	3.7	1.8U	200	J/UJ/A (CODE: FD)
JJJ	1.8	1.8U	200	J/UJ/A (CODE: FD)
UU	1.4	1.8U	200	J/UJ/A (CODE: FD)
ZZ	4.7	1.8U	200	J/UJ/A (CODE: FD)

LDC #: 31413A2b

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer BR
2nd Reviewer

METHOD: GC/MS SVOA (EPA SW 846 Method 8270DSIM)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

average RRF = sum of the RRFs/number of standards

%RSD = 100 * (S/X)

A_x = Area of Compound

C_x = Concentration of compound,

S= Standard deviation of the RRFs,

A_{is} = Area of associated internal standard

C_{is} = Concentration of internal standard

X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (IS)	Reported RRF (1 std)	Recalculated RRF (1 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	HP07166	1/2/2014	N-Nitrosodimethylamine (IS1)	0.866	0.866	0.845	0.846	5	5.5
			Naphthalene (IS2)	1.219	1.219	1.225	1.225	6	6
			Fluorene (IS3)	1.571	1.571	1.565	1.565	5	5
			Anthracene (IS4)	1.386	1.386	1.359	1.359	6	6
			Chrysene (IS5)	1.458	1.458	1.425	1.425	2	2
			Benzo(a)pyrene (IS6)	1.364	1.364	1.369	1.369	4	4

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC# 31413A2b

VALIDATION FINDINGS WORSHEET
Continuing Calibration Results Verification

Reviewer: BR
2nd Reviewer: SM

METHOD: GC/MS SVOA (EPA SW 846 Method 8270DSIM)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
RRF = (Ax)(Cis)/(Ais)(Cx)

Where:
ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
Ax = Area of compound
Cx = Concentration of compound
Ais = Area of associated internal standard
Cis = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (IS)	Average RRF (Initial RRF)	Reported (CC RRF)	Recalculated (CC RRF)	Reported %D	Recalculated %D
1	fa0221b	01/21/14	N-Nitrosodimethylamine (IS1)	0.845	0.745	0.745	12	12
			Naphthalene (IS2)	1.225	1.210	1.210	1	1
			Fluorene (IS3)	1.565	1.412	1.412	10	10
			Anthracene (IS4)	1.359	1.360	1.360	0	0
			Chrysene (IS5)	1.425	1.354	1.354	5	5
			Benzo(a)pyrene (IS6)	1.369	1.268	1.268	7	7

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

Surrogate Results Verification

Reviewer: BR
2nd reviewer: SM

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270D)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5 Fluoranthene-d10	1.00	0.759 ~~0.745~~ SM	76	76	0
2-Fluorobiphenyl Benzo(a)pyrene-d12		0.745	75	75	0
Terphenyl-d14 1-Methylnaphthalene-d10	↓	0.862	86	86	0
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: 31413A21

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: BR
2nd Reviewer: SR

METHOD: GC/MS BNA (EPA SW 846 Method 8270D)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified belc using the following calculation:

% Recovery = 100 * (SSC - SC)/SA Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentation

RPD = | MSC - MSC | * 2/(MSC + MSDC) MSC = Matrix spike concentration MSDC = Matrix spike duplicate concentration

MS/MSD samples: 7/8

Compound	Spike Added (ug/kg)		Sample Concentration (ug/kg)	Spiked Sample Concentration (ug/kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	------	MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol											
N-Nitroso-di-n-propylamine											
4-Chloro-3-methylphenol											
Acenaphthene	32.79		0	34.58	32.35	105	105	99	99	7	7
Pentachlorophenol											
Pyrene	32.79		4.31	35.18	35.43	94	94	95	95	1	0.7

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31413A26

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

METHOD: GC/MS BNA (EPA SW 846 Method 8270D)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for th compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboratory control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: 616LCLS

Compound	Spike Added (µg/kg)		Spike Concentration (µg/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol										
N-Nitroso-di-n-propylamine										
4-Chloro-3-methylphenol										
Acenaphthene	33.33	—	34.71	—	104	104	—	—	—	—
Pentachlorophenol										
Pyrene	33.33	—	34.76	—	104	104	—	—	—	—

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reporte results do not agree within 10.0% of the recalculated results.

LDC #: 31413A26

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: BR
2nd reviewer: SM

METHOD: GC/MS BNA (EPA SW 846 Method 8270D)

(Y) N N/A Were all reported results recalculated and verified for all level IV samples?
(Y) N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

V_o = Volume or weight of sample extract in milliliters (ml) or grams (g).

V_i = Volume of extract injected in microliters (ul)

V_t = Volume of the concentrated extract in microliters (ul)

Df = Dilution Factor.

%S = Percent solids, applicable to soil and solid matrices only.

2.0 = Factor of 2 to account for GPC cleanup

Example: 000 = 1.7

Sample I.D. 1, 000:

Conc. = $\frac{(7264)(1.00)(1000)(\quad)(\quad)}{(105968)(1.425)(30.5)(0.94)(\quad)}$

= 1.677997574 ug/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	January 13, 2014
LDC Report Date:	March 25, 2014
Matrix:	Soil
Parameters:	Polychlorinated Biphenyls
Validation Level:	Level IV
Laboratory:	Eurofins Lancaster Laboratories
Sample Delivery Group (SDG):	PH158

Sample Identification

SL-840-SA5B-SB-0.0-0.5
SL-840-SA5B-SB-4.0-5.0
SL-840-SA5B-SB-7.0-8.0
SL-838-SA5B-SB-0.0-0.5
SL-838-SA5B-SB-4.0-5.0
SL-1138-SA5B-SB-4.0-5.0
SL-838-SA5B-SB-4.0-5.0MS
SL-838-SA5B-SB-4.0-5.0MSD

Introduction

This data review covers 8 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082A for Polychlorinated Biphenyls.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration was performed as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) were less than or equal to 20.0% for all compounds.

The percent difference (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

Sample EB-011414 (From SDG PH159) was identified as an equipment blank. No polychlorinated biphenyl contaminants were found.

Sample FB-041613 (from SDG PH032) was identified as a field blank. No polychlorinated biphenyl contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

XI. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XII. Target Compound Identification

All target compound identifications were within validation criteria.

XIII. Compound Quantitation

All compound quantitations were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG PH158	All compounds reported below the RL.	J (all detects)	A

XIV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

Samples SL-838-SA5B-SB-4.0-5.0 and SL-1138-SA5B-SB-4.0-5.0 were identified as field duplicates. No polychlorinated biphenyl contaminants were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/Kg)		RPD (Limits)	Flags	A or P
	SL-838-SA5B-SB-4.0-5.0	SL-1138-SA5B-SB-4.0-5.0			
PCB-1248	18U	7.9	200 (≤50)	J (all detects) UJ (all non-detects)	A

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Data Qualification Summary - SDG PH158

SDG	Sample	Compound	Flag	A or P	Reason (Code)
PH158	SL-840-SA5B-SB-0.0-0.5 SL-840-SA5B-SB-4.0-5.0 SL-840-SA5B-SB-7.0-8.0 SL-838-SA5B-SB-0.0-0.5 SL-838-SA5B-SB-4.0-5.0 SL-1138-SA5B-SB-4.0-5.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation (Z)
PH158	SL-838-SA5B-SB-4.0-5.0 SL-1138-SA5B-SB-4.0-5.0	PCB-1248	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG PH158

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG PH158

No Sample Data Qualified in this SDG

LDC #: 31413A3b **VALIDATION COMPLETENESS WORKSHEET** Date: 3/25/14
SDG #: PH158 Level IV Page: 1 of 1
Laboratory: Eurofins Lancaster Laboratories Reviewer: BR
2nd Reviewer: SM

METHOD: GC Polychlorinated Biphenyls (EPA SW 846 Method 8082A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 1/13/14
II.	GC/ECD Instrument Performance Check	N	
III.	Initial calibration	A	RSD ≤20%
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ 20%
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS/D
IX.	Regional quality assurance and quality control	N	
X.	Florisil cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	A	
XIII.	Compound quantitation/RL/LOQ/LODs	A	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	SW	FD = 5+6
XVI.	Field blanks	ND	EB = EB-011414 (SDG # PH159) FB = FB-041613 (SDG # PH032)

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1	SL-840-SA5B-SB-0.0-0.5	11		21		31	PBLK 15016
2	SL-840-SA5B-SB-4.0-5.0	12		22		32	
3	SL-840-SA5B-SB-7.0-8.0	13		23		33	
4	SL-838-SA5B-SB-0.0-0.5	14		24		34	
5	SL-838-SA5B-SB-4.0-5.0	15		25		35	
6	SL-1138-SA5B-SB-4.0-5.0	16		26		36	
7	SL-838-SA5B-SB-4.0-5.0MS	17		27		37	
8	SL-838-SA5B-SB-4.0-5.0MSD	18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 31413A35

VALIDATION FINDINGS CHECKLIST

Reviewer: SR
2nd Reviewer: SM

Method: Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/ECD Instrument performance check				
Was the instrument performance found to be acceptable?			✓	
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Was a linear fit used for evaluation? If yes, were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation? If Yes, what was the acceptance criteria used?		✓		
Did the initial calibration meet the curve fit acceptance criteria?			✓	
Were the RT windows properly established?	✓			
Were the required standard concentrations analyzed in the initial calibration?	✓			
IV. Continuing calibration				
What type of continuing calibration calculation was performed? X %D or ____%R	✓			
Were Evaluation mix standards analyzed prior to the initial calibration and sample analysis?			✓	
Were endrin and 4,4'-DDT breakdowns ≤ 15%.0 for individual breakdown in the Evaluation mix standards?			✓	
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recovieries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Were extract cleanup blanks analyzed with every batch requiring clean-up?			✓	
Was there contamination in the method blanks or clean-up blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) of one or more surrogates was outside QC limits, was a reanalysis performed to confirm %R?			✓	

Validation Area	Yes	No	NA	Findings/Comments
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions, dry weight factors, and clean-up activities applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.	✓			
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

VALIDATION FINDINGS WORKSHEET

METHOD: Pesticide/PCBs (EPASW 846 Method 8081/8082)

A. alpha-BHC	I. Dieldrin	Q. Endrin ketone	Y. Aroclor-1242	GG. Chlordane
B. beta-BHC	J. 4,4'-DDE	R. Endrin aldehyde	Z. Aroclor-1248	HH. Chlordane (Technical)
C. delta-BHC	K. Endrin	S. alpha-Chlordane	AA. Aroclor-1254	II. Aroclor 1262
D. gamma-BHC	L. Endosulfan II	T. gamma-Chlordane	BB. Aroclor-1260	JJ. Aroclor 1268
E. Heptachlor	M. 4,4'-DDD	U. Toxaphene	CC. 2,4'-DDD	KK. Oxychlordane
F. Aldrin	N. Endosulfan sulfate	V. Aroclor-1016	DD. 2,4'-DDE	LL. trans-Nonachlor
G. Heptachlor epoxide	O. 4,4'-DDT	W. Aroclor-1221	EE. 2,4'-DDT	MM. cis-Nonachlor
H. Endosulfan I	P. Methoxychlor	X. Aroclor-1232	FF. Hexachlorobenzene	NN.

Notes:_____

LDC #: 31413A36

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: BR
2nd reviewer: SM

METHOD: X **GC** ___ **HPLC**

X N N/A Were field duplicate pairs identified in this SDG?
Y N N/A Were target compounds detected in the field duplicate pairs?

Compound	Concentration (ug/kg)		%RPD Limit 50	Qualification Parent only / All Samples
	5	6		
PCB-1248	18 U	7.9	200	J / UJ / A (FD)

Compound	Concentration ( )		%RPD Limit _____	Qualification Parent only / All Samples

LDC#: 31413A3b

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: BR
2nd Reviewer: SM

METHOD: GC PCBs (EPA SW 846 Method 8082A)

The calibration factors (CF), average CF, and relative standard deviation (%RSD) were recalculated for compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

Where:
A = Area of compound
C = Concentration of compound
S = Standard deviation of calibration factors
X = Mean of calibration factors

#	Standard ID	Calibration Date	Compound	Reported CF (500 std)	Recalculated CF (500 std)	Reported Average CF (Initial)	Recalculated Average CF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL 17342A	1/20/2014	PCB1260-1 (ZB-MultiR1)	35529	35529	37781	37781	9	9
			PCB1260-1 (ZB-MultiR2I)	4253	4253	4921	4921	17	17

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC#: 31413A3b

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Calculation Verification

Reviewer: BR
2nd Reviewer: SM

METHOD: GC PCBs (EPA SW 846 Method 8082)

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration percent difference (%D) values were recalculated for the compounds identified below using the following calculation:

Percent difference (%D) = 100 * (N - C)/N

Where: N = Initial Calibration Factor or Nominal Amount
C = Calibration Factor from Continuing Calibration Standard or Calculated Amount

#	Standard ID	Calibration Date	Compound	Conc	Reported Conc (CCV)	Recalculated Conc (CCV)	Reported % D	Recalculated %D
1	ICV - IC16XAA	1/20/2014 19:19	PCB1260 (ZB-MultiR1)	200	180.82	180.82	10	10
			PCB1260 (ZB-MultiR2)	200	173.28	173.29	14	13.4

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31413A2L

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: BR
2nd reviewer: SM

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 1

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Tetrachloro-m-xylene						
Tetrachloro-m-xylene	ZB-multiR1	9.93	11.09282	112	112	0
Decachlorobiphenyl	↓	10.03	10.19077	102	102	0
Decachlorobiphenyl						

Sample ID: _____

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Tetrachloro-m-xylene						
Tetrachloro-m-xylene						
Decachlorobiphenyl						
Decachlorobiphenyl						

Sample ID: _____

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Tetrachloro-m-xylene						
Tetrachloro-m-xylene						
Decachlorobiphenyl						
Decachlorobiphenyl						

Sample ID: _____

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Tetrachloro-m-xylene						
Tetrachloro-m-xylene						
Decachlorobiphenyl						
Decachlorobiphenyl						

Notes: _____

LDC #: 31413A36

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: BR
2nd Reviewer: SM

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

The percent recoveries (%R) and Relative Percent difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA

Where: SSC = Spiked sample concentration
SA = Spike added
SC = Concentration

RPD = I MS - MSD I * 2/(MS + MSD)

MS = Matrix spike percent recovery
MSD = Matrix spike duplicate percent recovery

MS/MSD samples: 7 | 8

Compound	Spike Added (ug/kg)		Sample Concentration (ug/kg)	Spiked Sample Concentration (ug/kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	-	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
gamma-BHC											
4,4'-DDT											
Aroclor 1260	164	164	0	150.7	159.53	92	92	97	97	6	5.7

Comments: Refer ot Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31413A3b

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: BR
2nd Reviewer: SM

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA

Where: SSC = Spiked sample concentration; SA = Spike added; SC = Concentration

RPD = | LCS - LCSD | * 2/(LCS + LCSD)

LCS = Laboratory control sample percent recovery; LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS/D 15016

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
gamma-BHC										
4,4'-DDT										
Aroclor 1260	167	-	165.22	-	99	99	-	-	-	-

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31413A3L

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: BR
2nd reviewer: SM

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Colum: ZB multi R2 (B)

Aroclor 1248-1 $= \frac{(76606.02)(10)}{(2109)(30.5)}$

$= 11.909\,30672$

1248-2 = 10.684272

1248-3 = 12.082084

Average = 11.55855424

Example: 8.4 12 ug/kg

Sample I.D. 1 Aroclor 1248

Conc. = $\frac{11.5585524}{0.937}$

= 12.33570016 ug/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Note:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: January 13, 2014

LDC Report Date: March 23, 2014

Matrix: Soil

Parameters: Metals

Validation Level: Level IV

Laboratory: Eurofins Lancaster Laboratories

Sample Delivery Group (SDG): PH158

Sample Identification

SL-840-SA5B-SB-0.0-0.5
SL-840-SA5B-SB-4.0-5.0
SL-840-SA5B-SB-7.0-8.0
SL-838-SA5B-SB-0.0-0.5
SL-838-SA5B-SB-4.0-5.0
SL-1138-SA5B-SB-4.0-5.0
SL-838-SA5B-SB-4.0-5.0MS
SL-838-SA5B-SB-4.0-5.0MSD
SL-838-SA5B-SB-4.0-5.0DUP

Introduction

This data review covers 9 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6010C, 6020A, and 7471B for Metals. The metals analyzed were Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, and Zirconium.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. ICPMS Tune

The mass calibration was within 0.1 AMU and the percent relative standard deviation (%RSD) was less than or equal to 5%.

III. Calibration

The initial and continuing calibrations were performed at the required frequency.

The calibration standards criteria were met.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No metal contaminants were found in the initial, continuing and preparation blanks with the following exceptions:

Method Blank ID	Analyte	Maximum Concentration	Associated Samples
PB (prep blank)	Calcium Magnesium Tin Zinc	4.67 mg/Kg 4.40 mg/Kg 1.59 mg/Kg 0.462 mg/Kg	All samples in SDG PH158
ICB/CCB	Titanium	1.1 ug/L	All samples in SDG PH158
ICB/CCB	Aluminum Calcium Magnesium	60.6 ug/L 34.4 ug/L 44.0 ug/L	SL-840-SA5B-SB-0.0-0.5 SL-840-SA5B-SB-4.0-5.0 SL-838-SA5B-SB-0.0-0.5
ICB/CCB	Calcium Magnesium Nickel	47.4 ug/L 39.3 ug/L 1.1 ug/L	SL-840-SA5B-SB-7.0-8.0 SL-838-SA5B-SB-4.0-5.0 SL-1138-SA5B-SB-4.0-5.0

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Final Concentration
SL-840-SA5B-SB-0.0-0.5	Tin	2.68 mg/Kg	2.68U mg/Kg
SL-840-SA5B-SB-4.0-5.0	Tin	2.69 mg/Kg	2.69U mg/Kg
SL-840-SA5B-SB-7.0-8.0	Tin	3.16 mg/Kg	3.16U mg/Kg
SL-838-SA5B-SB-0.0-0.5	Tin	2.87 mg/Kg	2.87U mg/Kg
SL-838-SA5B-SB-4.0-5.0	Tin	2.98 mg/Kg	2.98U mg/Kg
SL-1138-SA5B-SB-4.0-5.0	Tin	3.09 mg/Kg	3.09U mg/Kg

Sample EB-0111414 (from SDG PH159) was identified as an equipment blank. No metal contaminants were found with the following exceptions:

Blank ID	Sampling Date	Analyte	Concentration	Associated Samples
EB-0111414	1/14/14	Barium	0.00036 mg/L	All samples in SDG PH158

Sample FB-041613 (from SDG PH032) was identified as a field blank. No metal contaminants were found with the following exceptions:

Blank ID	Sampling Date	Analyte	Concentration	Associated Samples
FB-041613	4/16/13	Molybdenum Tin	0.0132 mg/L 0.0029 mg/L	All samples in SDG PH158

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated field blanks with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Final Concentration
SL-840-SA5B-SB-0.0-0.5	Molybdenum	0.592 mg/Kg	0.592U mg/Kg
SL-840-SA5B-SB-4.0-5.0	Molybdenum	0.571 mg/Kg	0.571U mg/Kg
SL-840-SA5B-SB-7.0-8.0	Molybdenum	0.322 mg/Kg	0.322U mg/Kg

Sample	Analyte	Reported Concentration	Modified Final Concentration
SL-838-SA5B-SB-0.0-0.5	Molybdenum	0.255 mg/Kg	0.255U mg/Kg
SL-838-SA5B-SB-4.0-5.0	Molybdenum	0.660 mg/Kg	0.660U mg/Kg
SL-1138-SA5B-SB-4.0-5.0	Molybdenum	0.217 mg/Kg	0.217U mg/Kg

V. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-838-SA5B-SB-4.0-5.0MS/MSD (All samples in SDG PH158)	Antimony	70 (75-125)	72 (75-125)	-	J (all detects) UJ (all non-detects)	A
SL-838-SA5B-SB-4.0-5.0MS/MSD (All samples in SDG PH158)	Phosphorus	128 (75-125)	-	-	J (all detects)	A

For SL-838-SA5B-SB-4.0-5.0MS/MSD, no data were qualified for Aluminum, Calcium, Iron, Magnesium, Manganese, and Titanium percent recoveries outside the QC limits since the parent sample results were greater than 4X the spike concentration.

VII. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits with the following exceptions:

DUP ID (Associated Samples)	Analyte	RPD (Limits)	Difference (Limits)	Flag	A or P
SL-838-SA5B-SB-4.0-5.0DUP (All samples in SDG PH158)	Calcium	78 (≤20)	-	J (all detects) UJ (all non-detects)	A

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Internal Standards (ICP-MS)

All internal standard percent recoveries (%R) were within QC limits.

X. ICP Serial Dilution

ICP serial dilution analysis was performed by the laboratory. The analysis criteria were met with the following exceptions:

Diluted Sample	Analyte	%D (Limits)	Associated Samples	Flag	A or P
SL-838-SA5B-SB-4.0-5.0	Aluminum Barium Calcium Chromium Iron Lithium Magnesium Manganese Nickel Phosphorus Potassium Titanium Vanadium Zinc	28 (≤10) 28 (≤10) 28 (≤10) 28 (≤10) 31 (≤10) 33 (≤10) 28 (≤10) 28 (≤10) 26 (≤10) 31 (≤10) 31 (≤10) 28 (≤10) 30 (≤10) 30 (≤10)	All samples in SDG PH158	J (all detects) UJ (all non-detects)	A

XI. Sample Result Verification

All sample result verifications were acceptable.

All metals reported below the RL and above the MDL were qualified as follows:

Sample	Analyte	Flag	A or P
All samples in SDG PH158	All analytes reported below the RL and above the MDL.	J (all detects)	A

XII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIII. Field Duplicates

Samples SL-838-SA5B-SB-4.0-5.0 and SL-1138-SA5B-SB-4.0-5.0 were identified as field duplicates. No metals were detected in any of the samples with the following exceptions:

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flag	A or P
	SL-838-SA5B-SB-4.0-5.0	SL-1138-SA5B-SB-4.0-5.0			
Aluminum	16400	17500	6 (≤50)	-	-
Arsenic	5.05	4.29	16 (≤50)	-	-
Barium	108	106	2 (≤50)	-	-
Beryllium	0.610	0.664	8 (≤50)	-	-
Boron	1.17	0.989	17 (≤50)	-	-
Calcium	4330	2460	55 (≤50)	J (all detects)	A
Chromium	19.3	18.5	4 (≤50)	-	-
Cobalt	4.50	3.93	14 (≤50)	-	-
Copper	9.30	8.18	13 (≤50)	-	-
Iron	20300	19800	2 (≤50)	-	-
Lead	7.81	7.75	1 (≤50)	-	-
Lithium	21.4	19.4	10 (≤50)	-	-
Magnesium	4070	3770	8 (≤50)	-	-
Manganese	271	277	2 (≤50)	-	-
Molybdenum	0.660	0.217	101 (≤50)	J (all detects)	A
Nickel	10.8	10.8	0 (≤50)	-	-
Phosphorus	227	149	41 (≤50)	-	-
Potassium	2330	1660	34 (≤50)	-	-
Selenium	0.141	0.148	5 (≤50)	-	-

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flag	A or P
	SL-838-SA5B-SB-4.0-5.0	SL-1138-SA5B-SB-4.0-5.0			
Silver	0.0415	0.0540	26 (≤50)	-	-
Sodium	148	96.2	42 (≤50)	-	-
Strontium	23.2	22.8	2 (≤50)	-	-
Tin	2.98	3.09	4 (≤50)	-	-
Thallium	0.245	0.237	3 (≤50)	-	-
Titanium	1150	1100	4 (≤50)	-	-
Vanadium	37.5	36.7	2 (≤50)	-	-
Zinc	47.0	43.8	7 (≤50)	-	-
Zirconium	1.89	1.39	30 (≤50)	-	-

Santa Susana Field Laboratory
Metals - Data Qualification Summary - SDG PH158

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
PH158	SL-840-SA5B-SB-0.0-0.5 SL-840-SA5B-SB-4.0-5.0 SL-840-SA5B-SB-7.0-8.0 SL-838-SA5B-SB-0.0-0.5 SL-838-SA5B-SB-4.0-5.0 SL-1138-SA5B-SB-4.0-5.0	Antimony	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
PH158	SL-840-SA5B-SB-0.0-0.5 SL-840-SA5B-SB-4.0-5.0 SL-840-SA5B-SB-7.0-8.0 SL-838-SA5B-SB-0.0-0.5 SL-838-SA5B-SB-4.0-5.0 SL-1138-SA5B-SB-4.0-5.0	Phosphorus	J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
PH158	SL-840-SA5B-SB-0.0-0.5 SL-840-SA5B-SB-4.0-5.0 SL-840-SA5B-SB-7.0-8.0 SL-838-SA5B-SB-0.0-0.5 SL-838-SA5B-SB-4.0-5.0 SL-1138-SA5B-SB-4.0-5.0	Calcium	J (all detects) UJ (all non-detects)	A	Duplicate sample analysis (RPD) (E)
PH158	SL-840-SA5B-SB-0.0-0.5 SL-840-SA5B-SB-4.0-5.0 SL-840-SA5B-SB-7.0-8.0 SL-838-SA5B-SB-0.0-0.5 SL-838-SA5B-SB-4.0-5.0 SL-1138-SA5B-SB-4.0-5.0	Aluminum Barium Calcium Chromium Iron Lithium Magnesium Manganese Nickel Phosphorus Potassium Titanium Vanadium Zinc	J (all detects) UJ (all non-detects)	A	ICP serial dilution (%D) (A)
PH158	SL-840-SA5B-SB-0.0-0.5 SL-840-SA5B-SB-4.0-5.0 SL-840-SA5B-SB-7.0-8.0 SL-838-SA5B-SB-0.0-0.5 SL-838-SA5B-SB-4.0-5.0 SL-1138-SA5B-SB-4.0-5.0	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)
PH158	SL-838-SA5B-SB-4.0-5.0 SL-1138-SA5B-SB-4.0-5.0	Calcium Molybdenum	J (all detects) J (all detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
Metals - Laboratory Blank Data Qualification Summary - SDG PH158

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
PH158	SL-840-SA5B-SB-0.0-0.5	Tin	2.68U mg/Kg	A	B

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
PH158	SL-840-SA5B-SB-4.0-5.0	Tin	2.69U mg/Kg	A	B
PH158	SL-840-SA5B-SB-7.0-8.0	Tin	3.16U mg/Kg	A	B
PH158	SL-838-SA5B-SB-0.0-0.5	Tin	2.87U mg/Kg	A	B
PH158	SL-838-SA5B-SB-4.0-5.0	Tin	2.98U mg/Kg	A	B
PH158	SL-1138-SA5B-SB-4.0-5.0	Tin	3.09U mg/Kg	A	B

Santa Susana Field Laboratory
Metals - Field Blank Data Qualification Summary - SDG PH158

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
PH158	SL-840-SA5B-SB-0.0-0.5	Molybdenum	0.592U mg/Kg	A	F
PH158	SL-840-SA5B-SB-4.0-5.0	Molybdenum	0.571U mg/Kg	A	F
PH158	SL-840-SA5B-SB-7.0-8.0	Molybdenum	0.322U mg/Kg	A	F
PH158	SL-838-SA5B-SB-0.0-0.5	Molybdenum	0.255U mg/Kg	A	F
PH158	SL-838-SA5B-SB-4.0-5.0	Molybdenum	0.660U mg/Kg	A	F
PH158	SL-1138-SA5B-SB-4.0-5.0	Molybdenum	0.217U mg/Kg	A	F

LDC #: 31413A4 **VALIDATION COMPLETENESS WORKSHEET** Date: 3/11/14
SDG #: PH158 Level IV Page: 1 of 1
Laboratory: Eurofins Lancaster Laboratories Reviewer: CA
2nd Reviewer: SM

METHOD: Metals (EPA SW 846 Method 6010C/6020A/~~7000~~ 7471B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 1/13/14
II.	ICP/MS Tune	A	
III.	Calibration	A	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	A	
VI.	Matrix Spike Analysis	SW	
VII.	Duplicate Sample Analysis	SW	
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	A	
X.	ICP Serial Dilution	SW	
XI.	Sample Result Verification	A	
XII.	Overall Assessment of Data	A	
XIII.	Field Duplicates	SW	(5,6)
XIV.	Field Blanks	SW	EB= EB-011414 (PH159) FB = FB-041613 (PH032)

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1	SL-840-SA5B-SB-0.0-0.5	11		21		31	
2	SL-840-SA5B-SB-4.0-5.0	12		22		32	
3	SL-840-SA5B-SB-7.0-8.0	13		23		33	
4	SL-838-SA5B-SB-0.0-0.5	14		24		34	
5	SL-838-SA5B-SB-4.0-5.0	15		25		35	
6	SL-1138-SA5B-SB-4.0-5.0	16		26		36	
7	SL-838-SA5B-SB-4.0-5.0MS	17		27		37	
8	SL-838-SA5B-SB-4.0-5.0MSD	18		28		38	
9	SL-838-SA5B-SB-4.0-5.0DUP	19		29		39	
10		20		30		40	

Notes: _____

LDC #: 31413A4

VALIDATION FINDINGS CHECKLIST

Reviewer: QR
2nd Reviewer: SM

Method: Metals (EPA SW 846 Method 6010B/7000/6020)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.				
II. ICP/MS Tune				
Were all isotopes in the tuning solution mass resolution within 0.1 amu?	✓			
Were %RSD of isotopes in the tuning solution ≤5%?	✓			
III. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% (80-120% for mercury) QC limits?	✓			
Were all initial calibration correlation coefficients > 0.995?	✓			
IV. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
V. ICP Interference Check Sample				
Were ICP interference check samples performed daily?	✓			
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?	✓			
VI. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.		✓		
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of +/- RL(+/-2X RL for soil) was used for samples that were ≤ 5X the RL, including when only one of the duplicate sample values were ≤ 5X the RL.	✓	✓		
VII. Laboratory control samples				
Was an LCS anaylzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% QC limits for water samples and laboratory established QC limits for soils?				

Validation Area	Yes	No	NA	Findings/Comments
VIII. Furnace Atomic Absorption QC				
If MSA was performed, was the correlation coefficients > 0.995?			✓	
Do all applicable analysies have duplicate injections? (Level IV only)			✓	
For sample concentrations > RL, are applicable duplicate injection RSD values < 20%? (Level IV only)			✓	
Were analytical spike recoveries within the 85-115% QC limits?				✓
IX. ICP Serial Dilution				
Was an ICP serial dilution analyzed if analyte concentrations were > 50X the MDL (ICP)/>100X the MDL(ICP/MS)?	✓			
Were all percent differences (%Ds) < 10%?		✓		
Was there evidence of negative interference? If yes, professional judgement will be used to qualify the data.		✓		
X. Internal Standards (EPA SW 846 Method 6020/EPA 200.8)				
Were all the percent recoveries (%R) within the 30-120% (6020)/60-125% (200.8) of the intensity of the internal standard in the associated initial calibration?	✓			
If the %Rs were outside the criteria, was a reanalysis performed?			✓	
XI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
XII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Overall assessment of data	✓			
Overall assessment of data was found to be acceptable.				
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target analytes were detected in the field duplicates.	✓			
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target analytes were detected in the field blanks.	✓			

LDC #: 31413A4

VALIDATION FINDINGS WORKSHEET
Sample Specific Element Reference

Reviewer: CR
2nd reviewer: SM

All circled elements are applicable to each sample.

Sample ID	Matrix	Target Analyte List (TAL)
1-6		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
QC 7-9		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr

LDC #: 31413A4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Reviewer: CL
2nd Reviewer: SM

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000) Soil preparation factor applied: 100x Code: B
Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: All

					Sample Identification										
Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Level	1	2	3	4	5	6					
Ca	4.67 ~~4.40~~			23.36											
Mg	~~4.397~~			21.99											
Sn	1.59			7.95	2.68	2.69	3.16	2.87	2.98	3.09					
Zn	0.462			2.31											
Ti			1.1	0.55											

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 1, 2, 4

					Sample Identification										
Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Level	No Qualifiers (>5x)										
Al			60.6	30.3											
Ca			34.4	17.2											
Mg			44.0	22											

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 3, 5, 6

					Sample Identification										
Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Level	No Qualifiers (>5x)										
Ca			47.4	23.7											
Mg			39.3	19.65											
Ni			1.1	0.55											

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".
Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 31413A4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: OR
2nd Reviewer: SM

METHOD: Trace Metals (EPA SW846 6010B/7000)

Blank units: mg/L **Associated sample units:** mg/Kg
Sampling date: 1/14/14 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: _____ Associated Samples: All

Analyte	Blank ID	Sample Identification										
	EB-011414 (SDG: PH159)	Action Limit	No qualifiers (>5x)									
Ba	0.00036	0.18										

Blank units: mg/L **Associated sample units:** mg/Kg
Sampling date: 4/16/13 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: _____ Associated Samples: All

Analyte	Blank ID	Sample Identification										
	FB-041613 (SDG: PH032)	Action Limit	1	2	3	4	5	6				
Mo	0.0132	6.6	0.592	0.571	0.322	0.255	0.660	0.217				
Sn	0.0029	1.45										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

LDC #: 31463H7

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Reviewer: CR
2nd Reviewer: SM

METHOD: Trace metals (EPA SW 846 Method 6010B/6020A/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a matrix spike analyzed for each matrix in this SDG?

Y (N) N/A Were matrix spike percent recoveries (%R) within the control limits of 75-125? If the sample concentration exceeded the spike concentration by a fac of 4 or more, no action was taken.

(Y) N N/A Were all duplicate sample relative percent differences (RPD) ≤ 20% for water samples and ≤35% for soil samples?

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	MS/MSD ID	Matrix	Analyte	MS %Recovery	MSD %Recovery	RPD (Limits)	Associated Samples	Qualifications
	7/8	S	Sb	70	72		All	J/UJ/A (Q)
			P	128				J det/A J

LDC #: 21115M

VALIDATION FINDINGS WORKSHEET
Duplicate Analysis

Page: 1 of 1
Reviewer: CL
2nd Reviewer: SM

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a duplicate sample analyzed for each matrix in this SDG?

Y (N) N/A Were all duplicate sample relative percent differences (RPD) ≤ 20% for water samples and ≤ 35% for soil samples? If no, see qualifications below. A contr limit of ±R.L. (±2X R.L. for soil) was used for sample values that were <5X the R.L., including the case when only one of the duplicate sample values wa <5X R.L.. If field blanks were used for laboratory duplicates, note in the Overall Assessment.

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	Duplicate ID	Matrix	Analyte	RPD (Limits)	Difference (Limits)	Associated Samples	Qualifications
		9	S	Ca	78 (≤20)		All	J/UJ/A (E)

Comments: Cd, Mo, Zn ok by difference

LDC #: 31453A1

VALIDATION FINDINGS WORKSHEET
ICP Serial Dilution

Reviewer: QR
2nd Reviewer: SM

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A If analyte concentrations were > 50X the MDL (ICP) ,or >100X the MDL (ICP/MS), was a serial dilution analyzed?
Y (N) N/A Were ICP serial dilution percent differences (%D) ≤10%?
Y (N) N/A Is there evidence of negative interference? If yes, professional judgement will be used to qualify the data.

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Diluted Sample ID	Matrix	Analyte	%D (Limits)	Associated Samples	Qualifications
	5	S	Al	28	~~All~~	J/UJ/A (A)
			Ba	28		
			Ca	28		
			Cr	28		
			Fe	31		
			Li	33		
			Mg	28		
			Mn	28		
			Ni	26		
			P	31		
			K	31		
			Ti	28		
			V	30		
			Zn	30		

Comments:

LDC: 31413A4

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1
Reviewer: CA
2nd Reviewer: SM

Method: Metals

Analyte	Concentration (mg/Kg)		RPD (≤ 50)	Qualifiers (Parents Only)
	5	6		
Aluminum	16400	17500	6	
Arsenic	5.05	4.29	16	
Barium	108	106	2	
Beryllium	0.610	0.664	8	
Boron	1.17	0.989	17	
Calcium	4330	2460	55	Jdet/A (FD)
Chromium	19.3	18.5	4	
Cobalt	4.50	3.93	14	
Copper	9.30	8.18	13	
Iron	20300	19800	2	
Lead	7.81	7.75	1	
Lithium	21.4	19.4	10	
Magnesium	4070	3770	8	
Manganese	271	277	2	
Molybdenum	0.660	0.217	101	Jdet/A (FD)
Nickel	10.8	10.8	0	
Phosphorus	227	149	41	
Potassium	2330	1660	34	
Selenium	0.141	0.148	5	
Silver	0.0415	0.0540	26	
Sodium	148	96.2	42	
Strontium	23.2	22.8	2	
Tin	2.98	3.09	4	
Thallium	0.245	0.237	3	
Titanium	1150	1100	4	
Vanadium	37.5	36.7	2	
Zinc	47.0	43.8	7	
Zirconium	1.89	1.39	30	

LDC #: 31413A9

VALIDATION FINDINGS WORKSHEET
Initial and Continuing Calibration Calculation Verification

Reviewer: QR
2nd Reviewer: SM

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

An initial and continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

%R = Found x 100 / True

Where, Found = concentration (in ug/L) of each analyte measured in the analysis of the ICV or CCV solution
True = concentration (in ug/L) of each analyte in the ICV or CCV source

Standard ID	Type of Analysis	Element	Found (ug/L)	True (ug/L)	Recalculated %R	Reported %R	Acceptable (Y/N)
ICV	ICP (Initial calibration)	Cr	583.74	600	97.3	97.3	Y
ICV	ICP/MS (Initial calibration)	Se	52.81	50	105.6	105.6	
ICV	CVAA (Initial calibration)	Hg	2.35	2.5	94.0	94.0	
CCV(07:32)	ICP (Continuing calibration)	V	494.76	500	99.0	99.0	
CCV(16:36)	ICP/MS (Continuing calibration)	Ag	26.38	25	105.5	105.5	
CCV(11:33)	CVAA (Continuing calibration)	Hg	1.05	1.0	105.0	105.0	✓
	GFAA (Initial calibration)						
	GFAA (Continuing calibation)						

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31473A5

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Percent recoveries (%R) for an ICP interference check sample, a laboratory control sample and a matrix spike sample were recalculated using the following formula:

%R = Found / True x 100 Where, Found = Concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).
True = Concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

RPD = |S-D| / (S+D)/2 x 100 Where, S = Original sample concentration
D = Duplicate sample concentration

An ICP serial dilution percent difference (%D) was recalculated using the following formula:

%D = |I-SDR| / I x 100 Where, I = Initial Sample Result (mg/L)
SDR = Serial Dilution Result (mg/L) (Instrument Reading x 5)

Sample ID	Type of Analysis	Element	Found / S / I (units)	True / D / SDR (units)	Recalculated %R / RPD / %D	Reported %R / RPD / %D	Acceptable (Y/N)
ICSAB	ICP interference check	Co	458.9	500	91.8	91.8	Y
LCS	Laboratory control sample	Ni	52619	50000	105	105	
7	Matrix spike	Cd	(SSR-SR) 4.574	5	91	91	
9	Duplicate	Ba	98.7540	87.9510	12	12	
5	ICP serial dilution	Fe	184756.17	187805.65	31	31	

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 3143A1

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: CR
2nd reviewer: SM

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Have results been reported and calculated correctly?
Y N N/A Are results within the calibrated range of the instruments and within the linear range of the ICP?
Y N N/A Are all detection limits below the CRDL?

Detected analyte results for Ni were recalculated and verified using the following equation:

Concentration = $\frac{(RD)(FV)(Dil)}{(In.\ Vol.)}$

RD = Raw data concentration
FV = Final volume (ml)
In. Vol. = Initial volume (ml) or weight (G)
Dil = Dilution factor

Recalculation:

$$1 = \frac{100\,mL\ (0.10611\,mg/L)}{0.937\,(1.01g)} = 1121\ mg/kg$$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	1	Ni	11.2	11.2	Y
	2	Zn	46.3	46.3	
	3	Cr	24.6	24.6	
	4	Se	18.7	18.7	
	5	Ag	0.045	0.045	
	6	~~Hg~~ Al	~~0.199~~ 17500	17500	

Note:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	January 13, 2014
LDC Report Date:	March 25, 2014
Matrix:	Soil/Water
Parameters:	Total Petroleum Hydrocarbons as Gasoline
Validation Level:	Level IV
Laboratory:	Eurofins Lancaster Laboratories
Sample Delivery Group (SDG):	PH158

Sample Identification

SL-840-SA5B-SB-4.0-5.0
SL-840-SA5B-SB-7.0-8.0
SL-838-SA5B-SB-4.0-5.0
SL-1138-SA5B-SB-4.0-5.0
TB-011314
SL-838-SA5B-SB-4.0-5.0MS
SL-838-SA5B-SB-4.0-5.0MSD

Introduction

This data review covers 6 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B Modified for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for all compounds were less than or equal to 20.0%.

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks.

Sample TB-011314 was identified as a trip blank. No total petroleum hydrocarbons as gasoline contaminants were found.

Sample EB-011414 (from SDG PH159) was identified as an equipment blank. No total petroleum hydrocarbons as gasoline contaminants were found.

Sample FB-041613 (from SDG PH033) was identified as a field blank. No total petroleum hydrocarbons as gasoline contaminants were found.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation

All compound quantitations were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG PH158	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

Samples SL-838-SA5B-SB-4.0-5.0 and SL-1138-SA5B-SB-4.0-5.0 were identified as field duplicates. No total petroleum hydrocarbons as gasoline were detected in any of the samples.

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG PH158

SDG	Sample	Compound	Flag	A or P	Reason (Code)
PH158	SL-840-SA5B-SB-4.0-5.0 SL-840-SA5B-SB-7.0-8.0 SL-838-SA5B-SB-4.0-5.0 SL-1138-SA5B-SB-4.0-5.0 TB-011314	All compounds reported below the RL.	J (all detects)	A	Compound quantitation (Z)

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG PH158

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification Summary - SDG PH158

No Sample Data Qualified in this SDG

LDC #: 31413A7 **VALIDATION COMPLETENESS WORKSHEET** Date: 3/25/14

SDG #: PH158 Level IV Page: 1 of 1

Laboratory: Eurofins Lancaster Laboratories Reviewer: BR

2nd Reviewer: SM

METHOD: GC TPH as Gasoline (EPA SW 846 Method 8015B) Mod

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 1/13/14
II	Initial calibration	A	RSD ≤ 20%
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20%
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	LCS/D
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	ND	FD = 3 + 4
XIII.	Field blanks	ND	TB = 5 FB = FB-041613 (SDG # PH032) EB = EB-011414 (SDG # PH159 PH159)

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil + Water

1	SL-840-SA5B-SB-4.0-5.0	11		21		31	BLK F1
2	SL-840-SA5B-SB-7.0-8.0	12		22		32	BLK 1°B
3	SL-838-SA5B-SB-4.0-5.0	13		23		33	
4	SL-1138-SA5B-SB-4.0-5.0	14		24		34	
5	TB-011314 W	15		25		35	
6	SL-838-SA5B-SB-4.0-5.0MS	16		26		36	
7	SL-838-SA5B-SB-4.0-5.0MSD	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 31413A7

VALIDATION FINDINGS CHECKLIST

Reviewer: BR
2nd Reviewer: SM

Method: X GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Was a linear fit used for evaluation? If yes, were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation? If Yes, what was the acceptance criteria used?		✓		
Did the initial calibration meet the curve fit acceptance criteria?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
What type of continuing calibration calculation was performed? %D or __%R	✓			
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) of one or more surrogates was outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			

Validation Area	Yes	No	NA	Findings/Comments
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.		✓	✓	B2
Target compounds were detected in the field blanks.			✓	

LDC #: 31413A7

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: BR
2nd Reviewer: [signature]

METHOD: GC X HPLC _____

The calibration factors (CF), average CF, and relative standard deviation (%RSD) were recalculated for compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

Where:
A = Area of compound
C = Concentration of compound
S = Standard deviation of calibration factors
X = Mean of calibration factors

#	Standard ID	Calibration Date	Compound	Reported CF (550 std)	Recalculated CF (550 std)	Reported Average CF (Initial)	Recalculated Average CF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL 11379F J&W DB-MTB	9/27/2013	GRO	53902	53902	55635	55635	4	4

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31413A7

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: BR
2nd Reviewer:

METHOD: GC X HPLC _____

The calibration factors (CF), average CF, and relative standard deviation (%RSD) were recalculated for compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

Where:
A = Area of compound
C = Concentration of compound
S = Standard deviation of calibration factors
X = Mean of calibration factors

#	Standard ID	Calibration Date	Compound	Reported CF (550 std)	Recalculated CF (550 std)	Reported Average CF (Initial)	Recalculated Average CF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL 16394F Restek VRX	10/8/2013	GRO	28604	28604	28046	28046	6	6

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31413A7

VALIDATION FINDINGS WORKSHEET

Continuing Calibration Calculation Verification

Reviewer: BR
2nd Reviewer:

METHOD: GC_____HPLC_____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration percent difference (%D) values were recalculated for the compounds identified below using the following calculation:

Percent difference (%D) = 100 * (N - C)/N

Where: N = Initial Calibration Factor or Nominal Amount
C = Calibration Factor from Continuing Calibration Standard or Calculated Amount

#	Standard ID	Calibration Date	Compound	CCV Conc/CF	Reported Conc/CF	Recalculated Conc/CF	Reported % D	Recalculated %D
1	SGCKXIY	1/17/2014	GRO	220.00	197.64	197.64	10	10
	11379F	14:42						
2	WGCCXDW	1/17/2014	GRO	550.00	521.15	521.15	5	5
	16394F	12:47						
3								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31413A7

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: BR
2nd reviewer: SM

METHOD: X GC ___ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Trifluorotoluene - F	JW-PB-MTB	622	535.0893	86	86	0

Sample ID: 5

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Trifluorotoluene - F	Restek-VRX	30	25.4566	85	85	0

Sample ID: ___

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 31413A7

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: BR
2nd Reviewer: SM

METHOD: X GC ___HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

RPD =(({SSCMS - SSCMSD} * 2) / (SSCMS + SSCMSD))*100

Where SSC = Spiked sample concentration; SC = Sample concentration; SA = Spike added; MS = Matrix spike; MSD = Matrix spike duplicate

MS/MSD samples: 6|7

Compound	Spike Added (mg/kg)		Sample Conc. (mg/kg)	Spike Sample Concentration (mg/kg)		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	---	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)	10.1	10.1	0	8.55	8.23	85	85	81	81	4	3.9
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31413A7

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Page: 1 of 1
Reviewer: KR
2nd Reviewer: SM

METHOD: X GC __HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

Where SSC = Spiked sample concentration
SA = Spike added
SC = Sample concentration

RPD =(({SSCLCS - SSCLCSD} * 2) / (SSCLCS + SSCLCSD))*100

LCS = Laboratory Control Sample
LCSD = Laboratory Control Sample duplicate

LCS/LCSD samples: LCSW1 / LCSD1Q

Compound	Spike Added (mg/kg or ug/L)		Spike Sample Concentration (mg/kg or ug/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)	1100	1100	1239.96	1233.26	113	113	112	112	1	0.5
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31413A7

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: BR
2nd Reviewer:

METHOD: X GC ___ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= (A)(Fv)(Df) / (RF)(Vs or Ws)(%S/100)

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound In the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID. 1-5 Compound Name GRO

Concentration = ND

LCSUA: GRO = 9.23 mg/kg

$$= \frac{(23813390 - 3262292)(25)}{(55635)(1)(1000)} = 9.234788838 \text{ mg/k}$$

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	January 13, 2014
LDC Report Date:	March 25, 2014
Matrix:	Soil
Parameters:	Total Petroleum Hydrocarbons as Extractables
Validation Level:	Level IV
Laboratory:	Eurofins Lancaster Laboratories
Sample Delivery Group (SDG):	PH158

Sample Identification

SL-840-SA5B-SB-0.0-0.5
SL-840-SA5B-SB-4.0-5.0
SL-840-SA5B-SB-7.0-8.0
SL-838-SA5B-SB-0.0-0.5
SL-838-SA5B-SB-4.0-5.0
SL-1138-SA5B-SB-4.0-5.0
SL-838-SA5B-SB-4.0-5.0MS
SL-838-SA5B-SB-4.0-5.0MSD

Introduction

This data review covers 8 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B Modified for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0%.

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractables contaminants were found in the method blanks.

Sample EB-011414 (from SDG PH159) was identified as an equipment blank. No total petroleum hydrocarbons as extractables contaminants were found.

Sample FB-041613 (from SDG PH032) was identified as a field blank. No total petroleum hydrocarbons as extractables contaminants were found.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation

All compound quantitations were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG PH158	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

Samples SL-838-SA5B-SB-4.0-5.0 and SL-1138-SA5B-SB-4.0-5.0 were identified as field duplicates. No total petroleum hydrocarbons as extractables were detected in any of the samples.

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG PH158

SDG	Sample	Compound	Flag	A or P	Reason (Code)
PH158	SL-840-SA5B-SB-0.0-0.5 SL-840-SA5B-SB-4.0-5.0 SL-840-SA5B-SB-7.0-8.0 SL-838-SA5B-SB-0.0-0.5 SL-838-SA5B-SB-4.0-5.0 SL-1138-SA5B-SB-4.0-5.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation (Z)

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG PH158

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification Summary - SDG PH158

No Sample Data Qualified in this SDG

LDC #: 31413A8 **VALIDATION COMPLETENESS WORKSHEET** Date: 3/25/14
SDG #: PH158 Level IV Page: 1 of 1
Laboratory: Eurofins Lancaster Laboratories Reviewer: BR
2nd Reviewer: SM

METHOD: GC TPH as Extractables (EPA SW 846 Method 8015B) Mod

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 1/13/14
II	Initial calibration	A	RSD ≤20%
III.	Calibration verification/ICV	A	ICV/CCV ≤20%
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	ND	FD = 5+6
XIII.	Field blanks	ND	FB = FB-041613 (SDG # PH032) EB = EB-011414 (SDG # PH159)

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1	SL-840-SA5B-SB-0.0-0.5	11		21		31	PBLK020717
2	SL-840-SA5B-SB-4.0-5.0	12		22		32	
3	SL-840-SA5B-SB-7.0-8.0	13		23		33	
4	SL-838-SA5B-SB-0.0-0.5	14		24		34	
5	SL-838-SA5B-SB-4.0-5.0	15		25		35	
6	SL-1138-SA5B-SB-4.0-5.0	16		26		36	
7	SL-838-SA5B-SB-4.0-5.0MS	17		27		37	
8	SL-838-SA5B-SB-4.0-5.0MSD	18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 31473A8

VALIDATION FINDINGS CHECKLIST

Reviewer: BR
2nd Reviewer: SM

Method: X GC ____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Was a linear fit used for evaluation? If yes, were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation? If Yes, what was the acceptance criteria used?		✓		
Did the initial calibration meet the curve fit acceptance criteria?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
What type of continuing calibration calculation was performed? X %D or __ %R	✓			
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) of one or more surrogates was outside QC limits, was a reanalysis performed to confirm %R?	✓		✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			

Validation Area	Yes	No	NA	Findings/Comments
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.		✓		
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

LDC #: 31413A8

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: BR
2nd Reviewer: [signature]

METHOD: GC X HPLC _____

The calibration factors (CF), average CF, and relative standard deviation (%RSD) were recalculated for compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

Where:
A = Area of compound
C = Concentration of compound
S = Standard deviation of calibration factors
X = Mean of calibration factors

#	Standard ID	Calibration Date	Compound	Reported CF (144 std)	Recalculated CF (144 std)	Reported Average CF (Initial)	Recalculated Average CF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL CP23-19879B ZB-5	1/13/2014	C8-C40	23861	23861	23780	23780	3%	3%

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31413A8

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Calculation Verification

Reviewer: BR
2nd Reviewer: [signature]

METHOD: GC_____HPLC_____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration percent difference (%D) values were recalculated for the compounds identified below using the following calculation:

Percent difference (%D) = 100 * (N - C)/N

Where: N = Initial Calibration Factor or Nominal Amount
C = Calibration Factor from Continuing Calibration Standard or Calculated Amount

#	Standard ID	Calibration Date	Compound	CCV Conc/CF	Reported Conc/CF	Recalculated Conc/CF	Reported % D	Recalculated %D
1	TPH_3KV	1/18/2014	C8-C40	288.01	278.61	278.62	3	3
2								
3								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 3141368

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: BR
2nd reviewer: SM

METHOD: X GC ___ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Chlorobenzene	ZB-5	2.00	1.8231	91	91	0
ortho-terphenyl	↓	↓	1.8007	90	90	0

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 31413A8

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: BR
2nd Reviewer: SM

METHOD: X GC ___HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

RPD =(({SSCMS - SSCMSD} * 2) / (SSCMS + SSCMSD))*100

Where SSC = Spiked sample concentration; SC = Sample concentration; SA = Spike added; MS = Matrix spike; MSD = Matrix spike duplicate

MS/MSD samples: 7/8

Compound	Spike Added (mg/kg)		Sample Conc. (mg/kg)	Spike Sample Concentration (mg/kg)		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	---	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
EFH (C30-C40	15	15	0	12.24	10.86	82	82	72	72	12	12

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 3141388

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: BR

2nd Reviewer: SM

METHOD: X GC __HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

Where SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentration

RPD =({{SSCLCS - SSCLCSD} * 2) / (SSCLCS + SSCLCSD))*100

LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample duplicate

LCS/LCSD samples: LCS02017

Compound	Spike Added (mg/kg)		Spike Sample Concentration (mg/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
EPH C30-C40	15	-	10.69	-	71	71	-	-	-	-

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31413B8

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: BR
2nd Reviewer: SR

METHOD: X GC ___ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

C30-C40=15

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound In the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID. 1 Compound Name EPH C30-C40

Concentration = $\frac{(9708908)(1000)}{(23780)(30)(0.937)(1000)}$

$= 14.52438241 \text{ mg/kg}$

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	January 13, 2014
LDC Report Date:	March 24, 2014
Matrix:	Soil
Parameters:	Dioxins/Dibenzofurans
Validation Level:	Level IV
Laboratory:	Eurofins Lancaster Laboratories
Sample Delivery Group (SDG):	PH158

Sample Identification

SL-840-SA5B-SB-0.0-0.5
SL-840-SA5B-SB-4.0-5.0
SL-840-SA5B-SB-7.0-8.0
SL-838-SA5B-SB-0.0-0.5
SL-838-SA5B-SB-4.0-5.0
SL-1138-SA5B-SB-4.0-5.0
SL-838-SA5B-SB-4.0-5.0MS
SL-838-SA5B-SB-4.0-5.0MSD

Introduction

This data review covers 8 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 1613B for Polychlorinated Dioxins/Dibenzofurans.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and the USEPA Contract Laboratory Program National Functional Guidelines for Polychlorinated Dioxins/Dibenzofurans Data Review (September 2005).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. HRGC/HRMS Instrument Performance Check

Instrument performance was checked at the required daily frequency.

The chromatographic resolution between 2,3,7,8-TCDD and the peaks representing any other unlabeled TCDD isomers was resolved with a valley of less than or equal to 25%.

PFK and static resolving power were within validation criteria.

III. Initial Calibration

A five point initial calibration was performed as required by the method.

Percent relative standard deviations (%RSD) were less than or equal to 20.0% for unlabeled compounds and less than or equal to 35.0% for labeled compounds.

The ion abundance ratios for all PCDDs and PCDFs were within validation criteria.

The minimum S/N ratio was greater than or equal to 2.5 for target compounds and 10 for recovery and internal standard compounds.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

All of the continuing calibration percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within QC limits.

The ion abundance ratios for all PCDDs and PCDFs were within validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated dioxin/dibenzofuran contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Extraction Date	Compound	Concentration	Associated Samples
BLK017001	1/17/14	2,3,7,8-TCDD	0.126 ng/Kg	All samples in SDG PH158
		1,2,3,4,7,8-HxCDD	0.0344 ng/Kg	
		1,2,3,6,7,8-HxCDD	0.0345 ng/Kg	
		1,2,3,7,8,9-HxCDD	0.0671 ng/Kg	
		1,2,3,4,6,7,8-HpCDD	0.104 ng/Kg	
		OCDD	0.219 ng/Kg	
		1,2,3,7,8-PeCDF	0.0576 ng/Kg	
		2,3,4,7,8-PeCDF	0.0516 ng/Kg	
		1,2,3,4,7,8-HxCDF	0.0591 ng/Kg	
		1,2,3,6,7,8-HxCDF	0.0455 ng/Kg	
		2,3,4,6,7,8-HxCDF	0.0389 ng/Kg	
		1,2,3,7,8,9-HxCDF	0.0371 ng/Kg	
		1,2,3,4,6,7,8-HpCDF	0.0794 ng/Kg	
		1,2,3,4,7,8,9-HpCDF	0.0738 ng/Kg	
		OCDF	0.191 ng/Kg	

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound	Reported Concentration	Modified Final Concentration
SL-840-SA5B-SB-0.0-0.5	2,3,7,8-TCDD	0.0530 ng/Kg	0.0530U ng/Kg
	1,2,3,4,7,8-HxCDD	0.0638 ng/Kg	0.0638U ng/Kg
	2,3,4,7,8-PeCDF	0.0637 ng/Kg	0.0637U ng/Kg
	1,2,3,4,7,8-HxCDF	0.0733 ng/Kg	0.0733U ng/Kg
	1,2,3,6,7,8-HxCDF	0.0938 ng/Kg	0.0938U ng/Kg
	2,3,4,6,7,8-HxCDF	0.0809 ng/Kg	0.0809U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0569 ng/Kg	0.0569U ng/Kg
SL-840-SA5B-SB-4.0-5.0	2,3,7,8-TCDD	0.0790 ng/Kg	0.0790U ng/Kg
	1,2,3,6,7,8-HxCDD	0.0623 ng/Kg	0.0623U ng/Kg
	1,2,3,7,8,9-HxCDD	0.113 ng/Kg	0.113U ng/Kg
	1,2,3,7,8-PeCDF	0.0694 ng/Kg	0.0694U ng/Kg
	2,3,4,7,8-PeCDF	0.0375 ng/Kg	0.0375U ng/Kg
	1,2,3,4,7,8-HxCDF	0.0589 ng/Kg	0.0589U ng/Kg
	1,2,3,6,7,8-HxCDF	0.0528 ng/Kg	0.0528U ng/Kg
	2,3,4,6,7,8-HxCDF	0.0212 ng/Kg	0.0212U ng/Kg
	1,2,3,7,8,9-HxCDF	0.134 ng/Kg	0.134U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.115 ng/Kg	0.115U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0519 ng/Kg	0.0519U ng/Kg
	OCDF	0.301 ng/Kg	0.301U ng/Kg
SL-840-SA5B-SB-7.0-8.0	1,2,3,6,7,8-HxCDD	0.0671 ng/Kg	0.0671U ng/Kg
	1,2,3,7,8,9-HxCDD	0.0327 ng/Kg	0.0327U ng/Kg
	1,2,3,4,6,7,8-HpCDD	0.285 ng/Kg	0.285U ng/Kg
	1,2,3,7,8-PeCDF	0.0439 ng/Kg	0.0439U ng/Kg
	2,3,4,7,8-PeCDF	0.0265 ng/Kg	0.0265U ng/Kg
	1,2,3,4,7,8-HxCDF	0.0392 ng/Kg	0.0392U ng/Kg
	1,2,3,6,7,8-HxCDF	0.0507 ng/Kg	0.0507U ng/Kg
	2,3,4,6,7,8-HxCDF	0.0443 ng/Kg	0.0443U ng/Kg
	1,2,3,7,8,9-HxCDF	0.0556 ng/Kg	0.0556U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.0857 ng/Kg	0.0857U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0633 ng/Kg	0.0633U ng/Kg
	OCDF	0.177 ng/Kg	0.177U ng/Kg

Sample	Compound	Reported Concentration	Modified Final Concentration
SL-838-SA5B-SB-0.0-0.5	1,2,3,4,7,8-HxCDD	0.0413 ng/Kg	0.0413U ng/Kg
	1,2,3,7,8,9-HxCDD	0.253 ng/Kg	0.253U ng/Kg
	1,2,3,4,6,7,8-HpCDD	0.430 ng/Kg	0.430U ng/Kg
	1,2,3,7,8-PeCDF	0.157 ng/Kg	0.157U ng/Kg
	2,3,4,7,8-PeCDF	0.0885 ng/Kg	0.0885U ng/Kg
	1,2,3,4,7,8-HxCDF	0.0916 ng/Kg	0.0916U ng/Kg
	1,2,3,6,7,8-HxCDF	0.118 ng/Kg	0.118U ng/Kg
	2,3,4,6,7,8-HxCDF	0.0979 ng/Kg	0.0979U ng/Kg
	1,2,3,7,8,9-HxCDF	0.138 ng/Kg	0.138U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.142 ng/Kg	0.142U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0764 ng/Kg	0.0764U ng/Kg
	OCDF	0.382 ng/Kg	0.382U ng/Kg
SL-838-SA5B-SB-4.0-5.0	2,3,7,8-TCDD	0.0707 ng/Kg	0.0707U ng/Kg
	1,2,3,4,7,8-HxCDD	0.0389 ng/Kg	0.0389U ng/Kg
	1,2,3,7,8,9-HxCDD	0.250 ng/Kg	0.250U ng/Kg
	1,2,3,7,8-PeCDF	0.206 ng/Kg	0.206U ng/Kg
	2,3,4,7,8-PeCDF	0.198 ng/Kg	0.198U ng/Kg
	1,2,3,4,7,8-HxCDF	0.183 ng/Kg	0.183U ng/Kg
	1,2,3,6,7,8-HxCDF	0.122 ng/Kg	0.122U ng/Kg
	2,3,4,6,7,8-HxCDF	0.0918 ng/Kg	0.0918U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.212 ng/Kg	0.212U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.109 ng/Kg	0.109U ng/Kg
	OCDF	0.438 ng/Kg	0.438U ng/Kg
SL-1138-SA5B-SB-4.0-5.0	2,3,7,8-TCDD	0.173 ng/Kg	0.173U ng/Kg
	1,2,3,4,7,8-HxCDD	0.142 ng/Kg	0.142U ng/Kg
	1,2,3,6,7,8-HxCDD	0.125 ng/Kg	0.125U ng/Kg
	1,2,3,7,8,9-HxCDD	0.207 ng/Kg	0.207U ng/Kg
	1,2,3,7,8-PeCDF	0.272 ng/Kg	0.272U ng/Kg
	2,3,4,7,8-PeCDF	0.206 ng/Kg	0.206U ng/Kg
	1,2,3,4,7,8-HxCDF	0.169 ng/Kg	0.169U ng/Kg
	1,2,3,6,7,8-HxCDF	0.151 ng/Kg	0.151U ng/Kg
	2,3,4,6,7,8-HxCDF	0.131 ng/Kg	0.131U ng/Kg
	1,2,3,7,8,9-HxCDF	0.174 ng/Kg	0.174U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.190 ng/Kg	0.190U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.166 ng/Kg	0.166U ng/Kg
	OCDF	0.518 ng/Kg	0.518U ng/Kg

Sample EB-011414 (from SDG PH159) was identified as an equipment blank. No polychlorinated dioxin/dibenzofuran contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB-011414	1/14/14	1,2,3,4,7,8-HxCDD	0.537 pg/L	All samples in SDG PH158
		1,2,3,6,7,8-HxCDD	0.852 pg/L	
		1,2,3,4,6,7,8-HpCDD	0.524 pg/L	
		OCDD	0.900 pg/L	
		1,2,3,7,8-PeCDF	0.459 pg/L	
		1,2,3,4,7,8-HxCDF	0.302 pg/L	
		1,2,3,6,7,8-HxCDF	0.501 pg/L	
		2,3,4,6,7,8-HxCDF	0.404 pg/L	
		1,2,3,4,6,7,8-HpCDF	0.280 pg/L	
		1,2,3,4,7,8,9-HpCDF	0.352 pg/L	
		OCDF	1.27 pg/L	

Sample FB-041613 (from SDG PH032) was identified as a field blank. No polychlorinated dioxin/dibenzofuran contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
FB-041613	4/16/13	1,2,3,7,8-PeCDD 1,2,3,4,6,7,8-HpCDD OCDD 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,7,8,9-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,6,7,8-HpCDF OCDF	0.434 pg/L 0.309 pg/L 0.838 pg/L 0.324 pg/L 0.429 pg/L 0.257 pg/L 0.241 pg/L 0.284 pg/L 0.314 pg/L 0.357 pg/L	All samples in SDG PH158

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X for other contaminants) than the concentrations found in the associated field blanks.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Ongoing Precision Recovery (OPR)

Ongoing precision recovery samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Regional Quality Assurance and Quality Control

Not applicable.

IX. Internal Standards

All internal standard recoveries were within QC limits.

X. Target Compound Identifications

All target compound identifications were within validation criteria.

XI. Compound Quantitation

All compound quantitations were within validation criteria.

The 2,3,7,8-TCDF confirmation was performed with the following exceptions:

Sample	Compound	Finding	Criteria	Flag	A or P
SL-838-SA5B-SB-0.0-0.5 SL-838-SA5B-SB-4.0-5.0	2,3,7,8-TCDF	2nd column confirmation was not performed for this compound.	2,3,7,8-TCDF must be confirmed on the 2nd column per the method.	None	P

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG PH158	All compounds reported below the RL.	J (all detects)	A

XII. System Performance

The system performance was acceptable.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIV. Field Duplicates

Samples SL-838-SA5B-SB-4.0-5.0 and SL-1138-SA5B-SB-4.0-5.0 were identified as field duplicates. No polychlorinated dioxins/dibenzofurans were detected in any of the samples with the following exceptions:

Compound	Concentration (ng/Kg)		RPD (Limits)	Flag	A or P
	SL-838-SA5B-SB-4.0-5.0	SL-1138-SA5B-SB-4.0-5.0			
2,3,7,8-TCDD	0.0707	0.173	84 (≤50)	J (all detects)	A
1,2,3,7,8-PeCDD	0.184	0.314	52 (≤50)	J (all detects)	A
1,2,3,4,7,8-HxCDD	0.0389	0.142	114 (≤50)	J (all detects)	A
1,2,3,6,7,8-HxCDD	0.188	0.125	40 (≤50)	-	-
1,2,3,7,8,9-HxCDD	0.250	0.207	19 (≤50)	-	-
1,2,3,4,6,7,8-HpCDD	0.807	0.649	22 (≤50)	-	-
OCDD	9.67	11.1	14 (≤50)	-	-
2,3,7,8-TCDF	0.0752	1.08U	200 (≤50)	J (all detects) UJ (all non-detects)	A

Compound	Concentration (ng/Kg)		RPD (Limits)	Flag	A or P
	SL-838-SA5B-SB-4.0-5.0	SL-1138-SA5B-SB-4.0-5.0			
1,2,3,7,8-PeCDF	0.206	0.272	28 (≤50)	-	-
2,3,4,7,8-PeCDF	0.198	0.206	4 (≤50)	-	-
1,2,3,4,7,8-HxCDF	0.183	0.169	8 (≤50)	-	-
1,2,3,6,7,8-HxCDF	0.122	0.151	21 (≤50)	-	-
2,3,4,6,7,8-HxCDF	0.0918	0.131	35 (≤50)	-	-
1,2,3,7,8,9-HxCDF	0.193	0.174	10 (≤50)	-	-
1,2,3,4,6,7,8-HpCDF	0.212	0.190	11 (≤50)	-	-
1,2,3,4,7,8,9-HpCDF	0.109	0.166	41 (≤50)	-	-
OCDF	0.438	0.518	17 (≤50)	-	-

Santa Susana Field Laboratory
Dioxins/Dibenzofurans - Data Qualification Summary - SDG PH158

SDG	Sample	Compound	Flag	A or P	Reason (Code)
PH158	SL-838-SA5B-SB-0.0-0.5 SL-838-SA5B-SB-4.0-5.0	2,3,7,8-TCDF	None	P	Compound quantitation (2nd column confirmation) (Z)
PH158	SL-840-SA5B-SB-0.0-0.5 SL-840-SA5B-SB-4.0-5.0 SL-840-SA5B-SB-7.0-8.0 SL-838-SA5B-SB-0.0-0.5 SL-838-SA5B-SB-4.0-5.0 SL-1138-SA5B-SB-4.0-5.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation (Z)
PH158	SL-838-SA5B-SB-4.0-5.0 SL-1138-SA5B-SB-4.0-5.0	2,3,7,8-TCDD 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDD	J (all detects) J (all detects) J (all detects)	A	Field duplicates (RPD) (FD)
PH158	SL-838-SA5B-SB-4.0-5.0 SL-1138-SA5B-SB-4.0-5.0	2,3,7,8-TCDF	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
Dioxins/Dibenzofurans - Laboratory Blank Data Qualification Summary - SDG PH158

SDG	Sample	Compound	Modified Final Concentration	A or P	Code
PH158	SL-840-SA5B-SB-0.0-0.5	2,3,7,8-TCDD 1,2,3,4,7,8-HxCDD 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8,9-HpCDF	0.0530U ng/Kg 0.0638U ng/Kg 0.0637U ng/Kg 0.0733U ng/Kg 0.0938U ng/Kg 0.0809U ng/Kg 0.0569U ng/Kg	A	B
PH158	SL-840-SA5B-SB-4.0-5.0	2,3,7,8-TCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	0.0790U ng/Kg 0.0623U ng/Kg 0.113U ng/Kg 0.0694U ng/Kg 0.0375U ng/Kg 0.0589U ng/Kg 0.0528U ng/Kg 0.0212U ng/Kg 0.134U ng/Kg 0.115U ng/Kg 0.0519U ng/Kg 0.301U ng/Kg	A	B

SDG	Sample	Compound	Modified Final Concentration	A or P	Code
PH158	SL-840-SA5B-SB-7.0-8.0	1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDD 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	0.0671U ng/Kg 0.0327U ng/Kg 0.285U ng/Kg 0.0439U ng/Kg 0.0265U ng/Kg 0.0392U ng/Kg 0.0507U ng/Kg 0.0443U ng/Kg 0.0556U ng/Kg 0.0857U ng/Kg 0.0633U ng/Kg 0.177U ng/Kg	A	B
PH158	SL-838-SA5B-SB-0.0-0.5	1,2,3,4,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDD 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	0.0413U ng/Kg 0.253U ng/Kg 0.430U ng/Kg 0.157U ng/Kg 0.0885U ng/Kg 0.0916U ng/Kg 0.118U ng/Kg 0.0979U ng/Kg 0.138U ng/Kg 0.142U ng/Kg 0.0764U ng/Kg 0.382U ng/Kg	A	B
PH158	SL-838-SA5B-SB-4.0-5.0	2,3,7,8-TCDD 1,2,3,4,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	0.0707U ng/Kg 0.0389U ng/Kg 0.250U ng/Kg 0.206U ng/Kg 0.198U ng/Kg 0.183U ng/Kg 0.122U ng/Kg 0.0918U ng/Kg 0.212U ng/Kg 0.109U ng/Kg 0.438U ng/Kg	A	B
PH158	SL-1138-SA5B-SB-4.0-5.0	2,3,7,8-TCDD 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	0.173U ng/Kg 0.142U ng/Kg 0.125U ng/Kg 0.207U ng/Kg 0.272U ng/Kg 0.206U ng/Kg 0.169U ng/Kg 0.151U ng/Kg 0.131U ng/Kg 0.174U ng/Kg 0.190U ng/Kg 0.166U ng/Kg 0.518U ng/Kg	A	B

Santa Susana Field Laboratory
Dioxins/Dibenzofurans - Field Blank Data Qualification Summary - SDG PH158

No Sample Data Qualified in this SDG

LDC #: 31413A21 **VALIDATION COMPLETENESS WORKSHEET** Date: 3-1-14
SDG #: PH158 Level IV Page: 1 of 1
Laboratory: Eurofins Lancaster Laboratories Reviewer: JM
2nd Reviewer: SM

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 1/13/14
II.	HRGC/HRMS Instrument performance check	A	
III.	Initial calibration	A	≤20/35
IV.	Continuing Calibration	A	QC limits
V.	Blanks	SW	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	OPR
VIII.	Regional quality assurance and quality control	N	
IX.	Internal standards	A	
X.	Target compound identifications	A	
XI.	Compound quantitation/RL/~~LOQ/LODs~~	SW	
XII.	System performance	A	
XIII.	Overall assessment of data	A	
XIV.	Field duplicates	SW	D=5+6
XV.	Field blanks	SW	EB=EB-011414(PH159); FB=FB-041613(PH032)

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1	SL-840-SA5B-SB-0.0-0.5	11		21		31	
2	SL-840-SA5B-SB-4.0-5.0	12		22		32	
3	SL-840-SA5B-SB-7.0-8.0	13		23		33	
4	SL-838-SA5B-SB-0.0-0.5	14		24		34	
5	SL-838-SA5B-SB-4.0-5.0	15		25		35	
6	SL-1138-SA5B-SB-4.0-5.0	16		26		36	
7	SL-838-SA5B-SB-4.0-5.0MS	17		27		37	
8	SL-838-SA5B-SB-4.0-5.0MSD	18		28		38	
9		19		29		39	
10		20	BLK017001	30		40	

Notes:

LDC #: 31413A21

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: AM
2nd Reviewer: SM

Method: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS Instrument performance check				
Was PFK exact mass 380.9760 verified?	✓			
Were the retention time windows established for all homologues?	✓			
Was the chromatographic resolution between 2,3,7,8-TCDD and peaks representing any other unlabeled TCDD isomers ≤ 25% ?	✓			
Is the static resolving power at least 10,000 (10% valley definition)?	✓			
Was the mass resolution adequately check with PFK?	✓			
Was the presence of 1,2,8,9-TCDD and 1,3,4,6,8-PeCDF verified?	✓			
III. Initial calibration				
Was the initial calibration performed at 5 concentration levels?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20% for unlabeled compounds and ≤ 35% for labeled compounds ?	✓			
Did all calibration standards meet the Ion Abundance Ratio criteria?	✓			
Was the signal to noise ratio for each target compound ≥ 2.5 and for each recovery and internal standard ≥ 10?	✓			
IV. Continuing calibration				
Was a routine calibration performed at the beginning and end of each 12 hour period?	✓			
Were all the concentrations for the unlabeled compounds and labeled compounds within the QC limits (Method 1613B, Table 6)?	✓			
Did all routine calibration standards meet the Ion Abundance Ratio criteria?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank performed for each matrix and concentration?			✓	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet?	✓			
VI. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?			✓	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			

Validation Area	Yes	No	NA	Findings/Comments
VIII. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			/	
Were the performance evaluation (PE) samples within the acceptance limits?			/	
IX. Internal standards				
Were internal standard recoveries within the 25-150% criteria?	/			
Was the minimum S/N ratio of all internal standard peaks ≥ 10?	/			
X. Target compound identification				
For 2,3,7,8 substituted congeners with associated labeled standards, were the retention times of the two quantitation peaks within -1 to 3 sec. of the RT of the labeled standard?	/			
For 2,3,7,8 substituted congeners without associated labeled standards, were the relative retention times of the two quantitation peaks within 0.005 time units of the RRT measured in the routine calibration?	/			
For non-2,3,7,8 substituted congeners, were the retention times of the two quantitation peaks within RT established in the performance check solution?			/	
Did compound spectra contain all characteristic ions listed in the table attached?	/			
Was the Ion Abundance Ratio for the two quantitation ions within criteria?		/		
Was the signal to noise ratio for each target compound and labeled standard ≥ 2.5?	/			
Does the maximum intensity of each specified characteristic ion coincide within ± 2 seconds (includes labeled standards)?	/			
For PCDF identification, was any signal (S/N ≥ 2.5, at ± seconds RT) detected in the corresponding PCDPE channel?		/		
Was an acceptable lock mass recorded and monitored?	/			
XI. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	/ /			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?				
XII. System performance				
System performance was found to be acceptable.	/			
XIII. Overall assessment of data	/			
Overall assessment of data was found to be acceptable.				
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	/			
Target compounds were detected in the field duplicates.	/			
XV. Field blanks				
Field blanks were identified in this SDG.	/			
Target compounds were detected in the field blanks.	/			

VALIDATION FINDINGS WORKSHEET

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

A. 2,3,7,8-TCDD	F. 1,2,3,4,6,7,8-HpCDD	K. 1,2,3,4,7,8-HxCDF	P. 1,2,3,4,7,8,9-HpCDF	U. Total HpCDD
B. 1,2,3,7,8-PeCDD	G. OCDD	L. 1,2,3,6,7,8-HxCDF	Q. OCDF	V. Total TCDF
C. 1,2,3,4,7,8-HxCDD	H. 2,3,7,8-TCDF	M. 2,3,4,6,7,8-HxCDF	R. Total TCDD	W. Total PeCDF
D. 1,2,3,6,7,8-HxCDD	I. 1,2,3,7,8-PeCDF	N. 1,2,3,7,8,9-HxCDF	S. Total PeCDD	X. Total HxCDF
E. 1,2,3,7,8,9-HxCDD	J. 2,3,4,7,8-PeCDF	O. 1,2,3,4,6,7,8-HpCDF	T. Total HxCDD	Y. Total HpCDF

Notes:_____

LDC #: 31413A21

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: TM
2nd Reviewer: SM

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Were all samples associated with a method blank?
Y N (N/A) Was a method blank performed for each matrix and whenever a sample extraction was performed?
(Y) N N/A Was the method blank contaminated?

Blank extraction date: 01/17/14 **Blank analysis date:** 01/20/14 **Associated samples:** All Qual U (B)
Conc. units: ng/kg

Compound	Blank ID	Sample Identification								
	BLK017001	5x	1	2	3	4	5	6		
A	0.126*	0.630	0.0530*	0.0790*			0.0707*	0.173		
C	0.0344*	0.172	0.0638*			0.0413*	0.0389*	0.142*		
D	0.0345*	0.173		0.0623	0.0671*			0.125*		
E	0.0671*	0.336		0.113*	0.0327	0.253	0.250*	0.207*		
F	0.104	0.520			0.285	0.430				
G	0.219	1.10								
I	0.0576*	0.288		0.0694*	0.0439*	0.157	0.206	0.272*		
J	0.0516*	0.258	0.0637*	0.0375*	0.0265	0.0885*	0.198*	0.206		
K	0.0591*	0.296	0.0733	0.0589*	0.0392*	0.0916	0.183	0.169		
L	0.0455	0.228	0.0938	0.0528*	0.0507*	0.118	0.122*	0.151*		
M	0.0389*	0.195	0.0809*	0.0212*	0.0443*	0.0979	0.0918*	0.131*		
N	0.0371*	0.186		0.134*	0.0556	0.138*		0.174		
O	0.0794*	0.397		0.115	0.0857*	0.142	0.212	0.190*		
P	0.0738	0.369	0.0569*	0.0519*	0.0633*	0.0764	0.109*	0.166*		
Q	0.191*	0.955		0.301	0.177*	0.382*	0.438	0.518*		

*EMPC
CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
All contaminants within five times the method blank concentration were qualified as not detected, "U".

LDC #: 31413A21

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: TM
2nd Reviewer: SM

METHOD: HRGC/HRMS Dioxins (EPA Method 1613B)

Blank units: pg/L **Associated sample units:** ng/kg
Sampling date: 01/14/14
Field blank type: (circle one) Field Blank / Rinsate / Other: EB Associated Samples: All >5x

Compound	Blank ID	Sample Identification								
	EB-011414	5X								
C	0.537	0.00269								
D	0.852*	0.00426								
F	0.524	0.00262								
G	0.900	0.00450								
I	0.459*	0.00230								
K	0.302*	0.00151								
L	0.501*	0.00251								
M	0.404	0.00202								
O	0.280*	0.00140								
P	0.352*	0.00176								
Q	1.27*	0.00635								

* EMPC

EB-011414 (PH159)

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
All contaminants within five times the blank concentration were qualified as not detected, "U".

LDC #: 31413A21

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: JM
2nd Reviewer: SM

METHOD: HRGC/HRMS Dioxins (EPA Method 1613B)

Blank units: pg/L **Associated sample units:** ng/kg
Sampling date: 04/16/13
Field blank type: (circle one) Field Blank / Rinsate / Other: FB Associated Samples: All >5x

Compound	Blank ID	Sample Identification								
	FB-041613	5X								
B	0.434*	0.00217								
F	0.309*	0.00155								
G	0.838*	0.00419								
I	0.324	0.00162								
J	0.429*	0.00215								
K	0.257	0.00129								
N	0.241*	0.00121								
M	0.284*	0.00142								
O	0.314*	0.00157								
Q	0.357*	0.00179								

* EMPC

FB-041613 (PH032)

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
All contaminants within five times the blank concentration were qualified as not detected, "U".

LDC #: 31413A21

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported RLs

Reviewer: 7h
2nd Reviewer: SM

METHOD: GC/MS Dioxins/Dibenzofurans (EPA Method 1613B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were the correct internal standard (IS), quantitation ions and relative response factors (RRF) used to quantitate the compound?
Y N N/A Compound quantitation and RLs were adjusted to reflect all sample dilutions and dry weight factors (if necessary).

#	Date	Compund	Finding	Associated Samples	Qualifications
			No 2,3,7,8-TCDF confirmation analysis	4-5	None/P

Comments: See sample calculation verification worksheet for recalculations

Method: HRGC/HRMS (EPA Method 1613B)

Analyte	Concentration (ng/kg)		RPD (≤ 50)	Qualifiers (Parents Only)
	5	6		
A	0.0707	0.173	84	Jdets/A (FD)
B	0.184	0.314	52	Jdets/A (FD)
C	0.0389	0.142	114	Jdets/A (FD)
D	0.188	0.125	40	--
E	0.250	0.207	19	--
F	0.807	0.649	22	--
G	9.67	11.1	14	--
H	0.0752	1.08U	~~174~~ 200	J/UJ/A SM ~~Jdets/A~~ (FD)
I	0.206	0.272	28	--
J	0.198	0.206	4	--
K	0.183	0.169	8	--
L	0.122	0.151	21	--
M	0.0918	0.131	35	--
N	0.193	0.174	10	--
O	0.212	0.190	11	--
P	0.109	0.166	41	--
Q	0.438	0.518	17	--

LDC #: 31413A21

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: 9m
2nd Reviewer: Em

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs,

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard
X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported RRF (CS3 std)	Recalculated RRF (CS3 std)	Reported %RSD	Recalculated %RSD
1	ICAL	09/22/2013	2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)	1.008	1.008	1.043	1.043	4.15	4.14
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)	1.109	1.109	1.125	1.125	1.62	1.60
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)	0.949	0.949	0.995	0.995	4.48	4.48
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)	1.056	1.056	1.079	1.079	1.66	1.66
			OCDF (^{13}C-OCDF)	0.963	0.963	0.998	0.998	2.75	2.75
2			2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)						
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)						
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)						
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)						
			OCDF (^{13}C-OCDF)						
3			2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)						
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)						
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)						
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)						
			OCDF (^{13}C-OCDF)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31413A21

VALIDATION FINDINGS WORKSHEET
Routine Calibration Results Verification

Reviewer: TH
2nd Reviewer: SM

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Spiked Conc (ng/mL)	Reported Conc (ng/mL)	Recalculated Conc (ng/mL)	Reported %R	Recalculated %R
1	CS3C02	1-20-14	2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)	10	9.683	9.681	97	97
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)	10	9.839	9.842	98	98
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)	50	49.941	49.939	100	100
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)	50	49.905	49.894	100	100
			OCDF (^{13}C-OCDF)	100	100.143	100.176	100	100
2			2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)	10				
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)	10				
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)	50				
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)	50				
			OCDF (^{13}C-OCDF)	100				
3			2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)	10				
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)	10				
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)	50				
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)	50				
			OCDF (^{13}C-OCDF)	100				

Comments: Refer to Routine Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31413A21

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: 9m
2nd Reviewer: Sm

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSR - SR)/SA Where: SSR = Spiked sample result, SR = Sample result
SA = Spike added

RPD = | MSR - MSDR | * 2/(MSR + MSDR) MSR = Matrix spike percent recovery MSDR = Matrix spike duplicate percent recovery

MS/MSD samples: 7/8

Compound	Spike Added (ng/kg)		Sample Concentration (ng/kg)	Spiked Sample Concentration (ng/kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		Reported RPD	Recalculated RPD
	MS	MSD	------	MS	MSD	Reported	Recalc	Reported	Recalc	----	----
2,3,7,8-TCDD	21.5	21.7	0.0707	20.4	20.2	94	94.5	93	93	1	1
1,2,3,7,8-PeCDD	108	109	0.184	105	102	97	97	93	93	3	3
1,2,3,4,7,8-HxCDD	108	109	0.0389	107	106	100	99	97	97	2	1
1,2,3,4,7,8,9-HpCDF	108	109	0.109	109	111	101	101	102	102	2	2
OCDF	215	217	0.438	212	211	98	98	97	97	Ø	0.5

Comments: Refer to Matrix Spike/Matrix Spike Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31413A21

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Reviewer: Qm
2nd Reviewer: SM

METHOD: GC/MS Dioxins/Dibenzofurans (EPA Method 1613B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA Where: SSC = Spiked sample concentration
SA = Spike added

RPD = | LCS - LCSD | * 2/(LCS + LCSD) LCS = Laboraotry control sample percent recovery LCSD = Laboratory control sample duplicate percent recovery

LCS ID: OPR017001

Compound	Spike Added (ng/kg)		Spiked Sample Concentration (ng/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
2,3,7,8-TCDD	20.0	NA	19.0	NA	95	95				
1,2,3,7,8-PeCDD	100		98.7		99	99				
1,2,3,4,7,8-HxCDD	100		98.2		98	98				
1,2,3,4,7,8,9-HpCDF	100		105		105	105				
OCDF	200		200		100	100				

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31413A21

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: YM
2nd reviewer: SM

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

(Y) N N/A Were all reported results recalculated and verified for all level IV samples?
(Y) N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

V_o = Volume or weight of sample extract in milliliters (ml) or grams (g).

RRF = Relative Response Factor (average) from the initial calibration

Df = Dilution Factor.

%S = Percent solids, applicable to soil and solid matrices only.

Example:

Sample I.D. 1, F:

Conc. = $\frac{(6415+6396)(2000)(1)}{(428322+454908)(1.056)(10.32)(.937)}$

= 2.84 ng/Kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

LDC #: 31442B2c **VALIDATION COMPLETENESS WORKSHEET** Date: 3/18/14
SDG #: 320-5060-1 Stage 2B Page: 1 of 1
Laboratory: Test America, Inc. Reviewer: FF
2nd Reviewer:

METHOD: GC/MS Semivolatiles Screen (EPA SW 846 Method 8270C-SIM)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	SW	Sampling dates: 11/20/13
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	% RSD ≤ 15/30
IV.	Continuing calibration/ICV	SW	1W/CCV ≤ 20
V.	Blanks	A	
VI.	Surrogate spikes	SW	*
VII.	Matrix spike/Matrix spike duplicates	SW	*320-5095-2 MS/D (NO Ass samples)
VIII.	Laboratory control samples	SW	* LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	SW	
XI.	Target compound identification	N	
XII.	Compound quantitation/RL/LOQ/LODs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	ER = 7 → 9

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: water * from full scan - text

1 3	PRI4-006-SW01-112013	11	MB 320-30743	21		31	
2 1	PRI7-001-SW01-112013	12	MB 320-34316	22		32	
3 2	PRI7-001-SW01-112013RE	13	MB 320-30784	23		33	
4 3	PRI7-001-SW01-112013RA	14		24		34	
5 1	PRI7-003-SW01-112013	15		25		35	
6 2	PRI7-003-SW01-112013RE	16		26		36	
7 1	PRI7-003-SW22-112013	17		27		37	
8 2	PRI7-003-SW22-112013RE	18		28		38	
9 3	PRI7-003-SW22-112013RA	19		29		39	
10		20		30		40	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS SVOA

A. Phenol	T. 4-Chloroaniline	MM. 4-Chlorophenyl-phenyl ether	FFF. Di-n-octylphthalate	YYY. 2,3,5-Trimethylnaphthalene
B. Bis (2-chloroethyl) ether	U. Hexachlorobutadiene	NN. Fluorene	GGG. Benzo(b)fluoranthene	ZZZ. Perylene
C. 2-Chlorophenol	V. 4-Chloro-3-methylphenol	OO. 4-Nitroaniline	HHH. Benzo(k)fluoranthene	AAAA. Dibenzothiophene
D. 1,3-Dichlorobenzene	W. 2-Methylnaphthalene	PP. 4,6-Dinitro-2-methylphenol	III. Benzo(a)pyrene	BBBB. Benzo(a)fluoranthene
E. 1,4-Dichlorobenzene	X. Hexachlorocyclopentadiene	QQ. N-Nitrosodiphenylamine	JJJ. Indeno(1,2,3-cd)pyrene	CCCC. Benzo(b)fluorene
F. 1,2-Dichlorobenzene	Y. 2,4,6-Trichlorophenol	RR. 4-Bromophenyl-phenylether	KKK. Dibenz(a,h)anthracene	DDDD. cis/trans-Decalin
G. 2-Methylphenol	Z. 2,4,5-Trichlorophenol	SS. Hexachlorobenzene	LLL. Benzo(g,h,i)perylene	EEEE. Biphenyl
H. 2,2'-Oxybis(1-chloropropane)	AA. 2-Chloronaphthalene	TT. Pentachlorophenol	MMM. Bis(2-Chloroisopropyl)ether	FFFF. Retene
I. 4-Methylphenol	BB. 2-Nitroaniline	UU. Phenanthrene	NNN. Aniline	GGGG. C30-Hopane
J. N-Nitroso-di-n-propylamine	CC. Dimethylphthalate	VV. Anthracene	OOO. N-Nitrosodimethylamine	HHHH. 1-Methylphenanthrene
K. Hexachloroethane	DD. Acenaphthylene	WW. Carbazole	PPP. Benzoic Acid	IIII. 1,4-Dioxane
L. Nitrobenzene	EE. 2,6-Dinitrotoluene	XX. Di-n-butylphthalate	QQQ. Benzyl alcohol	JJJJ. Acetophenone
M. Isophorone	FF. 3-Nitroaniline	YY. Fluoranthene	RRR. Pyridine	KKKK. Atrazine
N. 2-Nitrophenol	GG. Acenaphthene	ZZ. Pyrene	SSS. Benzidine	LLLL. Benzaldehyde
O. 2,4-Dimethylphenol	HH. 2,4-Dinitrophenol	AAA. Butylbenzylphthalate	TTT. 1-Methylnaphthalene	MMMM. Caprolactam
P. Bis(2-chloroethoxy)methane	II. 4-Nitrophenol	BBB. 3,3'-Dichlorobenzidine	UUU.Benzo(b)thiophene	NNNN.
Q. 2,4-Dichlorophenol	JJ. Dibenzofuran	CCC. Benzo(a)anthracene	VVV.Benzonaphthothiophene	OOOO.
R. 1,2,4-Trichlorobenzene	KK. 2,4-Dinitrotoluene	DDD. Chrysene	WWW.Benzo(e)pyrene	PPPP.
S. Naphthalene	LL. Diethylphthalate	EEE. Bis(2-ethylhexyl)phthalate	XXX. 2,6-Dimethylnaphthalene	QQQQ.

LDC #: 31442B2C

VALIDATION FINDINGS WORKSHEET
Technical Holding Times

Reviewer: FT
2nd Reviewer:

All circled dates have exceeded the technical holding times.
(Y) N N/A Were all cooler temperatures within validation criteria?

METHOD : GC/MS BNA (EPA SW 846 Method 8270C) code = 1

Sample ID	Matrix	Preserved	Sampling Date	Extraction date	Analysis date	Total # of Days	Qualifier
4, 9	water		11/20/13	11/26/13	1/17/14	52	J-/UJ/A
				extraction			
3, 6, 8	water		11/20/13	1/21/14	1/23/14	62	J-/R/A

TECHNICAL HOLDING TIME CRITERIA

Water: Extracted within 7 days, analyzed within 40 days.
Soil: Extracted within 14 days, analyzed within 40 days.

LDC #: 31442B2C

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a continuing calibration standard analyzed at least once every 12 hours of sample analysis for each instrument?

Y N N/A Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's ?

Y N N/A Were all %D and RRFs within the validation criteria of ≤20 %D and ≥0.05 RRF ?

code = 12

#	Date	Standard ID	Compound	Finding %D (Limit: ≤20.0%)	Finding RRF (Limit: ≥0.05)	Associated Samples	Qualifications
	1/17/14	CCV	U	22.3		4, 9	J+/Pdet
	9:39		TT	24.7		↓	J-/UJ/P
	1/22/14	CCV	U	32.2		3, 6, 8	J+/Adet
	13:49		Y	29.0		MB 320-30784	J+/Adet

LDC #: 31442B2C

VALIDATION FINDINGS WORKSHEET
Surrogate Recovery

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

Please see qualification below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were percent recoveries (%R) for surrogates within QC limits?
Y N N/A If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?
Y N N/A If any %R was less than 10 percent, was a reanalysis performed to confirm %R?

code = X

#	Date	Sample ID	Surrogate	%R (Limits)	Qualifications
		1	2FP	69 (24-68)	J+/Pdet qual Y, TT
			PHL	64 (10-50)	↓ ↓
				( )	
		2	↓	77 (↓)	J+/Adet ↓
			↓	71 (↓)	↓
				( )	
				( )	
		3	↓	74 (↓)	J+/Adet ↓
			↓	70 (↓)	↓
				( )	
				( )	
		5	↓	70 (↓)	J+/Adet ↓
			↓	66 (↓)	↓
				( )	
				( )	
		6	PHL	60 (10-50)	no qual
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	

(NBZ) = Nitrobenzene-d5
(FBP) = 2-Fluorobiphenyl
(TPH) = Terphenyl-d14
(PHL) = Phenol-d5
(2FP)= 2-Fluorophenol
(TBP) = 2,4,6-Tribromophenol
(2CP) = 2-Chlorophenol-d4
(DCB) = 1,2-Dichlorobenzene-d4

LDC #: 31442B2C

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: FT
2nd Reviewer: _____

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?

Y N N/A Were the LCS/LCSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

Code = 5

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	LCS 320-30743	N	26 (39-91)	( )	( )	2, 4, 5, 7, 9,	J-/UJ/P
			( )	( )	( )	MB 320-30743	
			( )	( )	( )		
			( )	( )	( )		
	LCS 320-34316	Y	118 (67-116)	( )	( )	3, 6, 8,	J+/P det
		SS	115 (71-111)	( )	( )	MB 320-34316	↓
			( )	( )	( )		
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LDC #: 31442B2C

VALIDATION FINDINGS WORKSHEET
Internal Standards

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

code = 14

Y N N/A Were all internal standard area counts within -50 to +100 of the associated calibration standard?

Y N N/A Were the retention times of the internal standards within +/- 30 seconds of the retention times of the associated calibration standard?

#	Date	Sample ID	Internal Standard	Area (Limits)	RT (Limits)	Qualifications
		2	DCB	68389 (69969 - 279876)		J/UJ/A qual 000 only

* QC limits are advisory

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10
IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

LDC #: 31442B2C

VALIDATION FINDINGS WORKSHEET
Overall Assessment of Data

Page: 1 of 1
Reviewer: P
2nd Reviewer: _____

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
All available information pertaining to the data were reviewed using professional judgement to compliment the determination of the overall quality of the data.

(Y) N N/A Was the overall quality and usability of the data acceptable?

#	Date	Compound Name	Finding	Associated Samples	Qualifications
		All	analyzed outside H.T.	4, 9	X
		All	extracted outside H.T	3, 6, 8	X

Comments: _____

OVRcpd.wpd

Data Validation Report
Santa Susana Field Laboratory

Go Backs

SDG: PH159

Prepared for

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Prepared by

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Carlsbad, CA 92010

March 26, 2014

INTRODUCTION

This Data Validation Report (DVR) presents Level III data validation results for samples collected on January 14, 2014. Data validation was performed in accordance with the Quality Assurance Project Plan (QAPP) for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines (CLPNFGs) for Superfund Organic Methods Data Review (June 2008), Polychlorinated Dioxins/Dibenzofurans Data Review (September 2005) and for Inorganic Data Review (January 2010). Where specific guidance is not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following methods:

Semivolatiles (SVOCs) by Environmental Protection Agency (EPA) SW 846 Method 8270D utilizing Selective Ion Monitoring (SIM)
Polychlorinated Biphenyls (PCBs) by EPA SW 846 Method 8082A
Metals by EPA SW 846 Method 6010C, 6020A, 7470A and 7471B
Total Petroleum Hydrocarbons (TPH) as Gasoline by EPA SW 846 Method 8015B Modified
TPH as Extractables by EPA SW 846 Method 8015B Modified
Polychlorinated Dioxins/Dibenzofurans by EPA Method 1613B

Wet Chemistry:
Perchlorate by EPA Method SW 846 6850

The sample identification and methods of analyses performed on each sample is presented in Attachment 1. Overall data qualification summary is presented in Attachment 2. Level III Automated Data Review outliers are presented in Enclosure I.

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results for sample holding times, initial and continuing calibration blanks (ICB/CCBs), surrogates, internal standards (dioxins/dibenzofurans only), matrix spike/matrix spike duplicates (MS/MSD), laboratory duplicates (DUP), laboratory control sample/laboratory control sample duplicates (LCS/LCSD), ICP serial dilutions, method blanks, equipment blanks, field blanks and field duplicate samples. No samples in this SDG were subjected to Level IV evaluation.

Automated data review was performed on all QC summary results using the Automated Data Review (ADR) software program (LDC, 2013) with exception of ICB/CCBs and ICP serial dilutions, which were validated manually. Quality assurance (QA)/QC criteria specified in the QAPP and CLPNFGs were incorporated with the program's reference library to assess compliance with project requirements.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met QC criteria.

II. Initial Calibration

Initial Calibration data were not reviewed for level III.

III. Continuing Calibration

Continuing calibration data were not reviewed for level III.

IV. Blanks

Method blanks were performed at the required frequencies. No contaminant concentrations were detected in the method or preparation blanks with the exception of several blanks for SVOCs, metals and dioxins/dibenzofurans. The associated sample results were qualified as non-detected (U) due to method blank contamination as applicable. The sample results that were not detected or were significantly greater than the concentrations found in the associated blanks were not qualified. The details regarding the qualification of data are provided in Enclosure I.

V. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits with the exception of one sample for PCBs. The associated sample results were qualified as detected estimated (J). The details regarding the qualification of data are provided in Enclosure I.

VI. ICP Interference Check Sample (ICS) Analysis

ICP interference check data were not reviewed for level III.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were performed at the required frequency. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the exception of one MS/MSD pair for SVOCs, metals, and TPH as extractables. The associated sample results were qualified as detected estimated (J) or non-detected estimated (UJ) as applicable. The details regarding the qualification of data are provided in Enclosure I.

VIII. Laboratory Duplicates Sample

Laboratory duplicates (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

IX. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the exception of one LCS/LCSD pair for SVOC. The associated sample results were qualified as detected estimated (J) as applicable. The details regarding the qualification of data are provided in Enclosure I.

X. Internal Standards

Internal standards were reviewed for dioxins/dibenzofurans. Percent recoveries (%R) were within QC limits.

XI. ICP Serial Dilution

Diluted Sample	Analyte	%D (Limits)	Associated Samples	Flag
SL-839-SA5B-SB-4.0-5.0	Strontium	12 (≤10)	All soil samples in SDG PH159	J (all detects) UJ (all non-detects)

The associated sample results were qualified as detected estimated (J).

XII. Compound Quantitation

The laboratory reporting limits were evaluated. All laboratory reporting limits met the specified requirements.

All compounds reported below the RL as detected were qualified as follows:

Sample	Finding	Flag
All samples in SDG PH159	All compounds reported as detected below the RL.	J (all detects)

XIII. Field Duplicate Samples

One field duplicate pair was collected and analyzed for SVOCs, PCBs, metals, TPH as gasoline, TPH as extractables, and dioxins/dibenzofurans. All RPDs were within QC limits with the exception of several SVOCs, PCBs, metals, and dioxins/dibenzofurans. The associated sample results were qualified as detected estimated (J) or non-detected estimated (UJ) as applicable. The field duplicate result comparisons are provided in Enclosure I.

XIV. Field Blank Samples

One trip blank was collected and analyzed for TPH as gasoline. No contaminants were found in the trip blank.

One equipment blank was collected and analyzed for SVOCs, PCBs, metals, TPH as gasoline, TPH as extractables, dioxins/dibenzofurans and perchlorate. The equipment blanks had detections for SVOCs, metals and dioxins/dibenzofurans. The sample results were not detected or were significantly greater than the concentrations found in the equipment blank, therefore no

data were qualified.

One field blank (from SDG PH032) was collected and analyzed for SVOCs, pesticides, PCBs, metals, herbicides, TPH as extractables, dioxins/dibenzofurans and cyanide. The field blank had detections for SVOCs, metals and dioxins. The associated sample results were qualified as non-detected (U) due to field blank contamination as applicable. The sample results that were not detected or were significantly greater than the concentrations found in the field blank were not qualified. The field blank outlier reports are presented in Enclosure I.

XV. Overall Assessment of Data

No data associated with this sampling event were rejected. The overall assessment of QA/QC data review by automated and manual validation of this sampling event met project requirements and analytical completeness levels with the exceptions noted in the above sections. All data are deemed useable for the intended use.

Data flags are summarized and are presented as Attachment 2.

Attachment 1

Sample Cross Reference

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Jan-2014	TB-011414	7336150	TB	5030B	8015M	III
14-Jan-2014	SL-839-SA5B-SB-0.0-0.5	7336139	N	3050B	6010C	III
14-Jan-2014	SL-839-SA5B-SB-0.0-0.5	7336139	N	3050B	6020A	III
14-Jan-2014	SL-839-SA5B-SB-0.0-0.5	7336139	N	3546	8015M	III
14-Jan-2014	SL-839-SA5B-SB-0.0-0.5	7336139	N	3546	8082A	III
14-Jan-2014	SL-839-SA5B-SB-0.0-0.5	7336139	N	3546	8270D SIM	III
14-Jan-2014	SL-839-SA5B-SB-0.0-0.5	7336139	N	METHOD	1613B	III
14-Jan-2014	SL-839-SA5B-SB-0.0-0.5	7336139	N	METHOD	7471B	III
14-Jan-2014	SL-839-SA5B-SB-0.0-0.5DUP	P336139D221104	DUP	METHOD	7471B	III
14-Jan-2014	SL-839-SA5B-SB-0.0-0.5MSD	P336139M221108	MSD	METHOD	7471B	III
14-Jan-2014	SL-839-SA5B-SB-0.0-0.5MS	P336139R221106	MS	METHOD	7471B	III
14-Jan-2014	SL-1139-SA5B-SB-4.0-5.0	7336144	FD	3050B	6010C	III
14-Jan-2014	SL-1139-SA5B-SB-4.0-5.0	7336144	FD	3050B	6020A	III
14-Jan-2014	SL-1139-SA5B-SB-4.0-5.0	7336144	FD	3546	8015M	III
14-Jan-2014	SL-1139-SA5B-SB-4.0-5.0	7336144	FD	3546	8082A	III
14-Jan-2014	SL-1139-SA5B-SB-4.0-5.0	7336144	FD	3546	8270D SIM	III
14-Jan-2014	SL-1139-SA5B-SB-4.0-5.0	7336144	FD	5035A	8015M	III
14-Jan-2014	SL-1139-SA5B-SB-4.0-5.0	7336144	FD	METHOD	1613B	III
14-Jan-2014	SL-1139-SA5B-SB-4.0-5.0	7336144	FD	METHOD	7471B	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0	7336140	N	3050B	6010C	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0	7336140	N	3050B	6020A	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0	7336140	N	3546	8015M	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0	7336140	N	3546	8082A	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0	7336140	N	3546	8270D SIM	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0	7336140	N	5035A	8015M	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0	7336140	N	METHOD	1613B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0	7336140	N	METHOD	7471B	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0MS	7336141	MS	3050B	6010C	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0MS	7336141	MS	3050B	6020A	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0MS	7336141	MS	3546	8015M	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0MS	7336141	MS	3546	8082A	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0MS	7336141	MS	3546	8270D SIM	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0MS	7336141	MS	5035A	8015M	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0MS	7336141	MS	METHOD	1613B	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0MS	7336141	MS	METHOD	7471B	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0MSD	7336142	MSD	3050B	6010C	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0MSD	7336142	MSD	3050B	6020A	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0MSD	7336142	MSD	3546	8015M	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0MSD	7336142	MSD	3546	8082A	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0MSD	7336142	MSD	3546	8270D SIM	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0MSD	7336142	MSD	5035A	8015M	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0MSD	7336142	MSD	METHOD	1613B	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0MSD	7336142	MSD	METHOD	7471B	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0DUP	7336143	DUP	3050B	6010C	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0DUP	7336143	DUP	3050B	6020A	III
14-Jan-2014	SL-839-SA5B-SB-4.0-5.0DUP	7336143	DUP	METHOD	7471B	III
14-Jan-2014	SL-839-SA5B-SB-9.0-10.0	7336145	N	3050B	6010C	III
14-Jan-2014	SL-839-SA5B-SB-9.0-10.0	7336145	N	3050B	6020A	III
14-Jan-2014	SL-839-SA5B-SB-9.0-10.0	7336145	N	3546	8015M	III
14-Jan-2014	SL-839-SA5B-SB-9.0-10.0	7336145	N	3546	8082A	III
14-Jan-2014	SL-839-SA5B-SB-9.0-10.0	7336145	N	3546	8270D SIM	III
14-Jan-2014	SL-839-SA5B-SB-9.0-10.0	7336145	N	5035A	8015M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Jan-2014	SL-839-SA5B-SB-9.0-10.0	7336145	N	METHOD	1613B	III
14-Jan-2014	SL-839-SA5B-SB-9.0-10.0	7336145	N	METHOD	7471B	III
14-Jan-2014	SL-839-SA5B-SB-15.5-16.5	7336146	N	3050B	6010C	III
14-Jan-2014	SL-839-SA5B-SB-15.5-16.5	7336146	N	3050B	6020A	III
14-Jan-2014	SL-839-SA5B-SB-15.5-16.5	7336146	N	3546	8015M	III
14-Jan-2014	SL-839-SA5B-SB-15.5-16.5	7336146	N	3546	8082A	III
14-Jan-2014	SL-839-SA5B-SB-15.5-16.5	7336146	N	3546	8270D SIM	III
14-Jan-2014	SL-839-SA5B-SB-15.5-16.5	7336146	N	5035A	8015M	III
14-Jan-2014	SL-839-SA5B-SB-15.5-16.5	7336146	N	METHOD	1613B	III
14-Jan-2014	SL-839-SA5B-SB-15.5-16.5	7336146	N	METHOD	7471B	III
14-Jan-2014	SL-843-SA5B-SB-0.0-0.5	7336147	N	3050B	6010C	III
14-Jan-2014	SL-843-SA5B-SB-0.0-0.5	7336147	N	3050B	6020A	III
14-Jan-2014	SL-843-SA5B-SB-0.0-0.5	7336147	N	3546	8015M	III
14-Jan-2014	SL-843-SA5B-SB-0.0-0.5	7336147	N	3546	8082A	III
14-Jan-2014	SL-843-SA5B-SB-0.0-0.5	7336147	N	3546	8270D SIM	III
14-Jan-2014	SL-843-SA5B-SB-0.0-0.5	7336147	N	METHOD	1613B	III
14-Jan-2014	SL-843-SA5B-SB-0.0-0.5	7336147	N	METHOD	7471B	III
14-Jan-2014	SL-843-SA5B-SB-4.0-5.0	7336148	N	3050B	6010C	III
14-Jan-2014	SL-843-SA5B-SB-4.0-5.0	7336148	N	3050B	6020A	III
14-Jan-2014	SL-843-SA5B-SB-4.0-5.0	7336148	N	3546	8015M	III
14-Jan-2014	SL-843-SA5B-SB-4.0-5.0	7336148	N	3546	8082A	III
14-Jan-2014	SL-843-SA5B-SB-4.0-5.0	7336148	N	3546	8270D SIM	III
14-Jan-2014	SL-843-SA5B-SB-4.0-5.0	7336148	N	5035A	8015M	III
14-Jan-2014	SL-843-SA5B-SB-4.0-5.0	7336148	N	METHOD	1613B	III
14-Jan-2014	SL-843-SA5B-SB-4.0-5.0	7336148	N	METHOD	7471B	III
14-Jan-2014	SL-843-SA5B-SB-7.0-8.0	7336149	N	3050B	6010C	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Jan-2014	SL-843-SA5B-SB-7.0-8.0	7336149	N	3050B	6020A	III
14-Jan-2014	SL-843-SA5B-SB-7.0-8.0	7336149	N	3546	8015M	III
14-Jan-2014	SL-843-SA5B-SB-7.0-8.0	7336149	N	3546	8082A	III
14-Jan-2014	SL-843-SA5B-SB-7.0-8.0	7336149	N	3546	8270D SIM	III
14-Jan-2014	SL-843-SA5B-SB-7.0-8.0	7336149	N	5035A	8015M	III
14-Jan-2014	SL-843-SA5B-SB-7.0-8.0	7336149	N	METHOD	1613B	III
14-Jan-2014	SL-843-SA5B-SB-7.0-8.0	7336149	N	METHOD	7471B	III
14-Jan-2014	EB-011414	7336151	EB	3005A	6010C	III
14-Jan-2014	EB-011414	7336151	EB	3510C	8015M	III
14-Jan-2014	EB-011414	7336151	EB	3510C	8082A	III
14-Jan-2014	EB-011414	7336151	EB	3510C	8270D SIM	III
14-Jan-2014	EB-011414	7336151	EB	5030B	8015M	III
14-Jan-2014	EB-011414	7336151	EB	Gen Prep	6850	III
14-Jan-2014	EB-011414	7336151	EB	M3010A	6020A	III
14-Jan-2014	EB-011414	7336151	EB	METHOD	1613B	III
14-Jan-2014	EB-011414	7336151	EB	METHOD	7470A	III
14-Jan-2014	EB-011414MSD	P336151M241345A	MSD	Gen Prep	6850	III
14-Jan-2014	EB-011414MS	P336151R241332A	MS	Gen Prep	6850	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment 2
Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method Category: METALS

Method: 6010C **Matrix: AQ**

Sample ID: **EB-011414** *Collected:* **1/14/2014 3:00:00** *Analysis Type:* **REA** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	0.00036	J	0.00033	MDL	0.0100	PQL	mg/L	J	Z

Method Category: METALS

Method: 6010C **Matrix: SO**

Sample ID: **SL-1139-SA5B-SB-4.0-5.0** *Collected:* **1/14/2014 9:10:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.29	U	0.794	MDL	4.29	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.717	J	0.0719	MDL	1.07	PQL	mg/Kg	J	Z
BORON	1.30	J	0.901	MDL	10.7	PQL	mg/Kg	J	Z
MOLYBDENUM	1.65	J	0.182	MDL	2.15	PQL	mg/Kg	U	F
TIN	3.22	J	0.236	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	2.96	J	0.901	MDL	5.36	PQL	mg/Kg	J	Z

Sample ID: **SL-839-SA5B-SB-0.0-0.5** *Collected:* **1/14/2014 9:00:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.22	U	0.781	MDL	4.22	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.725	J	0.0707	MDL	1.06	PQL	mg/Kg	J	Z
BORON	1.26	J	0.887	MDL	10.6	PQL	mg/Kg	J	Z
MOLYBDENUM	0.264	J	0.179	MDL	2.11	PQL	mg/Kg	U	F
TIN	3.22	J	0.232	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	3.38	J	0.887	MDL	5.28	PQL	mg/Kg	J	Z

Sample ID: **SL-839-SA5B-SB-15.5-16.5** *Collected:* **1/14/2014 10:30:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.47	U	0.826	MDL	4.47	PQL	mg/Kg	UJ	Q
ARSENIC	3.37	J	0.782	MDL	4.47	PQL	mg/Kg	J	Z
BERYLLIUM	0.462	J	0.0748	MDL	1.12	PQL	mg/Kg	J	Z
BORON	1.98	J	0.938	MDL	11.2	PQL	mg/Kg	J	Z
MOLYBDENUM	0.271	J	0.190	MDL	2.23	PQL	mg/Kg	U	F
TIN	2.99	J	0.246	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	4.55	J	0.938	MDL	5.58	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method Category: METALS

Method: 6010C **Matrix: SO**

Sample ID: **SL-839-SA5B-SB-4.0-5.0** *Collected:* **1/14/2014 9:15:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.36	U	0.807	MDL	4.36	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.712	J	0.0731	MDL	1.09	PQL	mg/Kg	J	Z
BORON	1.66	J	0.916	MDL	10.9	PQL	mg/Kg	J	Z
MOLYBDENUM	2.13	J	0.185	MDL	2.18	PQL	mg/Kg	U	F
TIN	3.30	J	0.240	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	3.37	J	0.916	MDL	5.45	PQL	mg/Kg	J	Z

Sample ID: **SL-839-SA5B-SB-9.0-10.0** *Collected:* **1/14/2014 10:15:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.32	U	0.799	MDL	4.32	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.730	J	0.0723	MDL	1.08	PQL	mg/Kg	J	Z
BORON	1.03	J	0.907	MDL	10.8	PQL	mg/Kg	J	Z
MOLYBDENUM	0.542	J	0.184	MDL	2.16	PQL	mg/Kg	U	F
TIN	3.23	J	0.238	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	3.22	J	0.907	MDL	5.40	PQL	mg/Kg	J	Z

Sample ID: **SL-843-SA5B-SB-0.0-0.5** *Collected:* **1/14/2014 1:10:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.33	U	0.801	MDL	4.33	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.890	J	0.0725	MDL	1.08	PQL	mg/Kg	J	Z
MOLYBDENUM	0.485	J	0.184	MDL	2.16	PQL	mg/Kg	U	F
TIN	3.28	J	0.238	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	3.78	J	0.909	MDL	5.41	PQL	mg/Kg	J	Z

Sample ID: **SL-843-SA5B-SB-4.0-5.0** *Collected:* **1/14/2014 1:30:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.51	U	0.834	MDL	4.51	PQL	mg/Kg	UJ	Q
BERYLLIUM	1.01	J	0.0755	MDL	1.13	PQL	mg/Kg	J	Z
BORON	3.71	J	0.946	MDL	11.3	PQL	mg/Kg	J	Z
MOLYBDENUM	0.349	J	0.191	MDL	2.25	PQL	mg/Kg	U	F
TIN	3.37	J	0.248	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	4.02	J	0.946	MDL	5.63	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method Category: METALS

Method: 6010C **Matrix: SO**

Sample ID: **SL-843-SA5B-SB-7.0-8.0** *Collected:* **1/14/2014 1:40:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.41	U	0.815	MDL	4.41	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.765	J	0.0738	MDL	1.10	PQL	mg/Kg	J	Z
BORON	1.10	J	0.925	MDL	11.0	PQL	mg/Kg	J	Z
MOLYBDENUM	0.243	J	0.187	MDL	2.20	PQL	mg/Kg	U	F
TIN	3.19	J	0.242	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	3.43	J	0.925	MDL	5.51	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020A **Matrix: SO**

Sample ID: **SL-1139-SA5B-SB-4.0-5.0** *Collected:* **1/14/2014 9:10:00** *Analysis Type:* **REA2** *Dilution:* **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.124	J	0.107	MDL	0.429	PQL	mg/Kg	J	Z, FD

Sample ID: **SL-1139-SA5B-SB-4.0-5.0** *Collected:* **1/14/2014 9:10:00** *Analysis Type:* **RES** *Dilution:* **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0306	J	0.0279	MDL	0.215	PQL	mg/Kg	J	Z
STRONTIUM	23.6		0.0729	MDL	0.429	PQL	mg/Kg	J	Q, A

Sample ID: **SL-839-SA5B-SB-0.0-0.5** *Collected:* **1/14/2014 9:00:00** *Analysis Type:* **REA2** *Dilution:* **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.145	J	0.106	MDL	0.422	PQL	mg/Kg	J	Z

Sample ID: **SL-839-SA5B-SB-0.0-0.5** *Collected:* **1/14/2014 9:00:00** *Analysis Type:* **RES** *Dilution:* **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0715	J	0.0274	MDL	0.211	PQL	mg/Kg	J	Z
STRONTIUM	28.5		0.0718	MDL	0.422	PQL	mg/Kg	J	Q, A

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method Category: METALS

Method: 6020A **Matrix: SO**

Sample ID: SL-839-SA5B-SB-15.5-16.5 **Collected: 1/14/2014 10:30:00** **Analysis Type: REA** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
THALLIUM	0.188	J	0.0335	MDL	0.223	PQL	mg/Kg	J	Z

Sample ID: SL-839-SA5B-SB-15.5-16.5 **Collected: 1/14/2014 10:30:00** **Analysis Type: RES** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0323	J	0.0290	MDL	0.223	PQL	mg/Kg	J	Z
STRONTIUM	70.4		0.0759	MDL	0.447	PQL	mg/Kg	J	Q, A

Sample ID: SL-839-SA5B-SB-4.0-5.0 **Collected: 1/14/2014 9:15:00** **Analysis Type: REA2** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.436	U	0.109	MDL	0.436	PQL	mg/Kg	UJ	FD

Sample ID: SL-839-SA5B-SB-4.0-5.0 **Collected: 1/14/2014 9:15:00** **Analysis Type: RES** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0355	J	0.0284	MDL	0.218	PQL	mg/Kg	J	Z
STRONTIUM	24.3		0.0741	MDL	0.436	PQL	mg/Kg	J	Q, A

Sample ID: SL-839-SA5B-SB-9.0-10.0 **Collected: 1/14/2014 10:15:00** **Analysis Type: REA2** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.122	J	0.108	MDL	0.432	PQL	mg/Kg	J	Z

Sample ID: SL-839-SA5B-SB-9.0-10.0 **Collected: 1/14/2014 10:15:00** **Analysis Type: RES** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0466	J	0.0281	MDL	0.216	PQL	mg/Kg	J	Z
STRONTIUM	27.3		0.0734	MDL	0.432	PQL	mg/Kg	J	Q, A

Sample ID: SL-843-SA5B-SB-0.0-0.5 **Collected: 1/14/2014 1:10:00** **Analysis Type: REA2** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.184	J	0.108	MDL	0.433	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method Category: METALS

Method: 6020A **Matrix: SO**

Sample ID: **SL-843-SA5B-SB-0.0-0.5** *Collected:* **1/14/2014 1:10:00** *Analysis Type:* **RES** *Dilution:* **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0418	J	0.0281	MDL	0.216	PQL	mg/Kg	J	Z
STRONTIUM	24.5		0.0736	MDL	0.433	PQL	mg/Kg	J	Q, A

Sample ID: **SL-843-SA5B-SB-4.0-5.0** *Collected:* **1/14/2014 1:30:00** *Analysis Type:* **REA2** *Dilution:* **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.130	J	0.113	MDL	0.451	PQL	mg/Kg	J	Z

Sample ID: **SL-843-SA5B-SB-4.0-5.0** *Collected:* **1/14/2014 1:30:00** *Analysis Type:* **RES** *Dilution:* **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0956	J	0.0293	MDL	0.225	PQL	mg/Kg	J	Z
STRONTIUM	68.8		0.0766	MDL	0.451	PQL	mg/Kg	J	Q, A

Sample ID: **SL-843-SA5B-SB-7.0-8.0** *Collected:* **1/14/2014 1:40:00** *Analysis Type:* **RES** *Dilution:* **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0573	J	0.0286	MDL	0.220	PQL	mg/Kg	J	Z
STRONTIUM	19.0		0.0749	MDL	0.441	PQL	mg/Kg	J	Q, A

Method Category: METALS

Method: 7471B **Matrix: SO**

Sample ID: **SL-843-SA5B-SB-4.0-5.0** *Collected:* **1/14/2014 1:30:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0129	J	0.0107	MDL	0.0178	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1613B **Matrix: AQ**

Sample ID: **EB-011414** *Collected:* **1/14/2014 3:00:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.524	JB	0.456	MDL	10.1	PQL	pg/L	U	B

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method Category: SVOA

Method: 1613B **Matrix: AQ**

Sample ID: **EB-011414** *Collected:* **1/14/2014 3:00:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	0.280	JBQ	0.162	MDL	10.1	PQL	pg/L	U	B
1,2,3,4,7,8,9-HPCDF	0.352	JBQ	0.204	MDL	10.1	PQL	pg/L	U	B
1,2,3,4,7,8-HxCDD	0.537	J	0.358	MDL	10.1	PQL	pg/L	J	Z
1,2,3,4,7,8-HXCDF	0.302	JBQ	0.233	MDL	10.1	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDD	0.852	JBQ	0.379	MDL	10.1	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDF	0.501	JBQ	0.238	MDL	10.1	PQL	pg/L	U	B
1,2,3,7,8-PECDF	0.459	JBQ	0.299	MDL	10.1	PQL	pg/L	U	B
2,3,4,6,7,8-HXCDF	0.404	J	0.242	MDL	10.1	PQL	pg/L	J	Z
OCDD	0.900	JB	0.380	MDL	20.1	PQL	pg/L	U	B
OCDF	1.27	JBQ	0.536	MDL	20.1	PQL	pg/L	U	B

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: **SL-1139-SA5B-SB-4.0-5.0** *Collected:* **1/14/2014 9:10:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.397	JB	0.0231	MDL	5.23	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.171	JB	0.0138	MDL	5.23	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0790	JBQ	0.0180	MDL	5.23	PQL	ng/Kg	UJ	B, FD
1,2,3,4,7,8-HxCDD	0.0806	JBQ	0.0299	MDL	5.23	PQL	ng/Kg	UJ	B, FD
1,2,3,4,7,8-HXCDF	0.163	JB	0.0273	MDL	5.23	PQL	ng/Kg	J	Z, FD
1,2,3,6,7,8-HXCDD	0.260	JBQ	0.0322	MDL	5.23	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.152	JB	0.0272	MDL	5.23	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8,9-HXCDD	0.424	JBQ	0.0295	MDL	5.23	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.399	JB	0.0261	MDL	5.23	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0499	J	0.0405	MDL	5.23	PQL	ng/Kg	J	Z, FD
1,2,3,7,8-PECDF	0.153	JBQ	0.0283	MDL	5.23	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.158	JB	0.0257	MDL	5.23	PQL	ng/Kg	UJ	B, FD
2,3,4,7,8-PECDF	0.336	JB	0.0255	MDL	5.23	PQL	ng/Kg	UJ	B, FD
2,3,7,8-TCDF	0.0983	JQ	0.0613	MDL	1.05	PQL	ng/Kg	J	Z, FD
OCDD	3.41	JB	0.0292	MDL	10.5	PQL	ng/Kg	J	Z
OCDF	0.373	JBQ	0.0376	MDL	10.5	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: **SL-839-SA5B-SB-0.0-0.5** *Collected:* **1/14/2014 9:00:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.448	JBQ	0.0290	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.143	JBQ	0.0111	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0755	JBQ	0.0139	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0681	JBQ	0.0233	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.175	JBQ	0.0304	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0935	JBQ	0.0234	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.261	JB	0.0288	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.219	JB	0.0253	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0469	JQ	0.0386	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0263	JBQ	0.0222	MDL	5.18	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0752	JB	0.0242	MDL	5.18	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.103	JBQ	0.0206	MDL	5.18	PQL	ng/Kg	U	B
OCDD	4.52	JB	0.0563	MDL	10.4	PQL	ng/Kg	J	Z
OCDF	0.408	JB	0.0464	MDL	10.4	PQL	ng/Kg	U	B

Sample ID: **SL-839-SA5B-SB-15.5-16.5** *Collected:* **1/14/2014 10:30:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.733	JB	0.0270	MDL	5.65	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.203	JB	0.0101	MDL	5.65	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.111	JB	0.0137	MDL	5.65	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.121	JB	0.0234	MDL	5.65	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0755	JBQ	0.0226	MDL	5.65	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0405	JB	0.0272	MDL	5.65	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0988	JB	0.0231	MDL	5.65	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0717	JB	0.0236	MDL	5.65	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0712	JBQ	0.0230	MDL	5.65	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.118	JBQ	0.0227	MDL	5.65	PQL	ng/Kg	U	B
OCDD	3.21	JB	0.0315	MDL	11.3	PQL	ng/Kg	J	Z
OCDF	0.332	JB	0.0345	MDL	11.3	PQL	ng/Kg	U	B

Sample ID: **SL-839-SA5B-SB-4.0-5.0** *Collected:* **1/14/2014 9:15:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.258	JBQ	0.0321	MDL	5.42	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: **SL-839-SA5B-SB-4.0-5.0** *Collected:* **1/14/2014 9:15:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	0.105	JBQ	0.0144	MDL	5.42	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0310	JBQ	0.0178	MDL	5.42	PQL	ng/Kg	UJ	B, FD
1,2,3,4,7,8-HxCDD	5.42	U	0.0372	MDL	5.42	PQL	ng/Kg	UJ	FD
1,2,3,4,7,8-HXCDF	0.0493	JBQ	0.0271	MDL	5.42	PQL	ng/Kg	UJ	B, FD
1,2,3,6,7,8-HXCDD	0.175	JBQ	0.0399	MDL	5.42	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0734	JBQ	0.0264	MDL	5.42	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8,9-HXCDD	0.299	JB	0.0366	MDL	5.42	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.254	JB	0.0308	MDL	5.42	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0930	JQ	0.0567	MDL	5.42	PQL	ng/Kg	J	Z, FD
1,2,3,7,8-PECDF	0.110	JBQ	0.0383	MDL	5.42	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0581	JB	0.0263	MDL	5.42	PQL	ng/Kg	UJ	B, FD
2,3,4,7,8-PECDF	0.0880	JBQ	0.0357	MDL	5.42	PQL	ng/Kg	UJ	B, FD
2,3,7,8-TCDF	1.08	U	0.0710	MDL	1.08	PQL	ng/Kg	UJ	FD
OCDD	2.31	JBQ	0.0968	MDL	10.8	PQL	ng/Kg	J	Z
OCDF	0.257	JBQ	0.0631	MDL	10.8	PQL	ng/Kg	U	B

Sample ID: **SL-839-SA5B-SB-9.0-10.0** *Collected:* **1/14/2014 10:15:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	4.26	JB	0.0265	MDL	5.13	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	1.24	JB	0.0128	MDL	5.13	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.107	JBQ	0.0159	MDL	5.13	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0509	JBQ	0.0280	MDL	5.13	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0887	JBQ	0.0229	MDL	5.13	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.316	JBQ	0.0286	MDL	5.13	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.107	JBQ	0.0220	MDL	5.13	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.385	JB	0.0274	MDL	5.13	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.277	JB	0.0226	MDL	5.13	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0711	JQ	0.0370	MDL	5.13	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0974	JBQ	0.0231	MDL	5.13	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0936	JBQ	0.0207	MDL	5.13	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.129	JB	0.0216	MDL	5.13	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0640	JQ	0.0590	MDL	1.03	PQL	ng/Kg	J	Z
OCDF	6.51	JB	0.0285	MDL	10.3	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: **SL-843-SA5B-SB-0.0-0.5** *Collected:* **1/14/2014 1:10:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2.08	JB	0.0274	MDL	5.49	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.449	JB	0.0112	MDL	5.49	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.114	JB	0.0158	MDL	5.49	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0643	JBQ	0.0303	MDL	5.49	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.177	JB	0.0246	MDL	5.49	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.665	JB	0.0313	MDL	5.49	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.203	JBQ	0.0233	MDL	5.49	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	1.01	JB	0.0291	MDL	5.49	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.717	JBQ	0.0284	MDL	5.49	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.242	JQ	0.0490	MDL	5.49	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.332	JBQ	0.0272	MDL	5.49	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.128	JBQ	0.0239	MDL	5.49	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.138	JBQ	0.0260	MDL	5.49	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0867	JQ	0.0691	MDL	1.10	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.134	JQ	0.0639	MDL	1.10	PQL	ng/Kg	J	Z
OCDF	0.932	JB	0.0344	MDL	11.0	PQL	ng/Kg	U	B

Sample ID: **SL-843-SA5B-SB-4.0-5.0** *Collected:* **1/14/2014 1:30:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	1.18	JB	0.0244	MDL	5.63	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.253	JBQ	0.0123	MDL	5.63	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.131	JB	0.0163	MDL	5.63	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.146	JBQ	0.0286	MDL	5.63	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.222	JB	0.0220	MDL	5.63	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.275	JB	0.0309	MDL	5.63	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.247	JBQ	0.0213	MDL	5.63	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.366	JBQ	0.0279	MDL	5.63	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.377	JB	0.0230	MDL	5.63	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.311	J	0.0386	MDL	5.63	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.444	JBQ	0.0226	MDL	5.63	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.138	JBQ	0.0207	MDL	5.63	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.316	JB	0.0214	MDL	5.63	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.137	JQ	0.0613	MDL	1.13	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: **SL-843-SA5B-SB-4.0-5.0** *Collected:* **1/14/2014 1:30:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,7,8-TCDF	0.149	JQ	0.0467	MDL	1.13	PQL	ng/Kg	J	Z
OCDD	10.6	JB	0.0255	MDL	11.3	PQL	ng/Kg	J	Z
OCDF	0.709	JB	0.0340	MDL	11.3	PQL	ng/Kg	U	B

Sample ID: **SL-843-SA5B-SB-7.0-8.0** *Collected:* **1/14/2014 1:40:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	3.30	JB	0.0291	MDL	5.56	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.631	JB	0.0141	MDL	5.56	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.136	JBQ	0.0175	MDL	5.56	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0693	JBQ	0.0302	MDL	5.56	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.161	JB	0.0245	MDL	5.56	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.187	JB	0.0313	MDL	5.56	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.134	JB	0.0238	MDL	5.56	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.194	JBQ	0.0299	MDL	5.56	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.160	JB	0.0255	MDL	5.56	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.105	JQ	0.0387	MDL	5.56	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.242	JB	0.0212	MDL	5.56	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.130	JB	0.0235	MDL	5.56	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.185	JBQ	0.0208	MDL	5.56	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0741	JQ	0.0457	MDL	1.11	PQL	ng/Kg	J	Z
OCDF	1.46	JB	0.0324	MDL	11.1	PQL	ng/Kg	J	Z

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: **SL-839-SA5B-SB-15.5-16.5** *Collected:* **1/14/2014 10:30:00** *Analysis Type:* **REA** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	4.6	J	2.3	MDL	5.8	PQL	mg/Kg	J	Z
EFH (C30-C40)	7.4	J	4.6	MDL	12	PQL	mg/Kg	J	Z
EFH (C8-C11)	4.5	J	2.3	MDL	5.8	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: **SL-839-SA5B-SB-9.0-10.0** *Collected:* **1/14/2014 10:15:00** *Analysis Type:* **REA** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	4.2	J	2.2	MDL	5.5	PQL	mg/Kg	J	Z

Sample ID: **SL-843-SA5B-SB-4.0-5.0** *Collected:* **1/14/2014 1:30:00** *Analysis Type:* **REA** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	4.8	J	2.3	MDL	5.7	PQL	mg/Kg	J	Z

Sample ID: **SL-843-SA5B-SB-7.0-8.0** *Collected:* **1/14/2014 1:40:00** *Analysis Type:* **REA** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	5.1	J	2.2	MDL	5.6	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8082A **Matrix: SO**

Sample ID: **SL-1139-SA5B-SB-4.0-5.0** *Collected:* **1/14/2014 9:10:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1248	19		3.6	MDL	19	PQL	ug/Kg	J	FD

Sample ID: **SL-839-SA5B-SB-4.0-5.0** *Collected:* **1/14/2014 9:15:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1248	7.8	J	3.6	MDL	19	PQL	ug/Kg	J	Z, FD

Sample ID: **SL-843-SA5B-SB-0.0-0.5** *Collected:* **1/14/2014 1:10:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1248	6.7	J	3.7	MDL	19	PQL	ug/Kg	J	Z, S
AROCLOR 1254	7.7	J	4.9	MDL	19	PQL	ug/Kg	J	Z, S

Sample ID: **SL-843-SA5B-SB-4.0-5.0** *Collected:* **1/14/2014 1:30:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1248	8.6	J	3.8	MDL	19	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method Category: SVOA

Method: 8082A **Matrix: SO**

Sample ID: **SL-843-SA5B-SB-4.0-5.0** *Collected:* **1/14/2014 1:30:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	6.5	J	5.0	MDL	19	PQL	ug/Kg	J	Z

Sample ID: **SL-843-SA5B-SB-7.0-8.0** *Collected:* **1/14/2014 1:40:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1248	14	J	3.7	MDL	19	PQL	ug/Kg	J	Z
AROCLOR 1254	11	J	4.9	MDL	19	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270D SIM **Matrix: AQ**

Sample ID: **EB-011414** *Collected:* **1/14/2014 3:00:00** *Analysis Type:* **RES-BASE/NEUTRAL** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	0.090	J	0.053	MDL	1.1	PQL	ug/L	U	B
Diethylphthalate	0.44	J	0.053	MDL	1.1	PQL	ug/L	J	Z
Di-n-butylphthalate	0.17	J	0.053	MDL	1.1	PQL	ug/L	J	Z

Method Category: SVOA

Method: 8270D SIM **Matrix: SO**

Sample ID: **SL-1139-SA5B-SB-4.0-5.0** *Collected:* **1/14/2014 9:10:00** *Analysis Type:* **RES-BASE/NEUTRAL** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	2.2		0.73	MDL	1.8	PQL	ug/Kg	J	FD
2-METHYLNAPHTHALENE	3.4		0.73	MDL	1.8	PQL	ug/Kg	J	FD
ANTHRACENE	0.67	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	3.0		0.73	MDL	1.8	PQL	ug/Kg	J	FD
BENZO(G,H,I)PERYLENE	1.8	U	0.73	MDL	1.8	PQL	ug/Kg	UJ	FD
BENZO(K)FLUORANTHENE	1.3	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z, FD
CHRYSENE	3.4		0.36	MDL	1.8	PQL	ug/Kg	J	FD
INDENO(1,2,3-CD)PYRENE	1.8	U	0.73	MDL	1.8	PQL	ug/Kg	UJ	FD
NAPHTHALENE	1.8	U	0.73	MDL	1.8	PQL	ug/Kg	UJ	FD

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method Category: SVOA

Method: 8270D SIM **Matrix: SO**

Sample ID: **SL-839-SA5B-SB-0.0-0.5** *Collected:* **1/14/2014 9:00:00** *Analysis Type:* **RES-BASE/NEUTRAL** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(E)PYRENE	7.2	J	3.6	MDL	18	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	0.99	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: **SL-839-SA5B-SB-15.5-16.5** *Collected:* **1/14/2014 10:30:00** *Analysis Type:* **RES-BASE/NEUTRAL** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.87	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.2	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	1.1	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: **SL-839-SA5B-SB-4.0-5.0** *Collected:* **1/14/2014 9:15:00** *Analysis Type:* **RES-BASE/NEUTRAL** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	1.8	U	0.73	MDL	1.8	PQL	ug/Kg	UJ	FD
2-METHYLNAPHTHALENE	1.8	U	0.73	MDL	1.8	PQL	ug/Kg	UJ	FD
ANTHRACENE	0.75	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	6.0		0.73	MDL	1.8	PQL	ug/Kg	J	FD
BENZO(G,H,I)PERYLENE	0.96	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z, FD
BENZO(K)FLUORANTHENE	2.5		0.73	MDL	1.8	PQL	ug/Kg	J	FD
CHRYSENE	14		0.37	MDL	1.8	PQL	ug/Kg	J	FD
INDENO(1,2,3-CD)PYRENE	1.1	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z, FD
NAPHTHALENE	0.76	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z, FD
PYRENE	7.0		0.73	MDL	1.8	PQL	ug/Kg	J	Q

Sample ID: **SL-839-SA5B-SB-9.0-10.0** *Collected:* **1/14/2014 10:15:00** *Analysis Type:* **RES-BASE/NEUTRAL** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	1.6	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(E)PYRENE	4.7	J	3.7	MDL	19	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.5	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	22		6.6	MDL	20	PQL	ug/Kg	J	L
INDENO(1,2,3-CD)PYRENE	1.7	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method Category: SVOA

Method: 8270D SIM **Matrix: SO**

Sample ID: **SL-843-SA5B-SB-0.0-0.5** *Collected:* **1/14/2014 1:10:00** *Analysis Type:* **RES-BASE/NEUTRAL** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.55	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.7	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.5	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	1.8	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: **SL-843-SA5B-SB-4.0-5.0** *Collected:* **1/14/2014 1:30:00** *Analysis Type:* **RES-BASE/NEUTRAL** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	0.95	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.1	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
CHRYSENE	1.6	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
FLUORANTHENE	1.1	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	0.91	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	1.1	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
PYRENE	1.4	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: **SL-843-SA5B-SB-7.0-8.0** *Collected:* **1/14/2014 1:40:00** *Analysis Type:* **RES-BASE/NEUTRAL** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.4	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.7	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.74	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.3	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	1.7	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Reason Code Legend

Reason Code	*Description*
*#	Professional Judgment
A	ICP Serial Dilution
B	Method Blank Contamination
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Field Blank Contamination
FD	Field Duplicate Precision
L	Laboratory Control Spike Upper Estimation
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Enclosure I

EPA Level III ADR Outliers

(Including Manual Review Outliers)

Quality Control Outlier Reports

PH159

Method Blank Outlier Report

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: **1613B**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK0210B371905	1/22/2014 7:05:00 PM	1,2,3,4,6,7,8-HPCDD	1.72 pg/L	EB-011414
		1,2,3,4,6,7,8-HPCDF	0.834 pg/L	
		1,2,3,4,7,8,9-HPCDF	1.32 pg/L	
		1,2,3,4,7,8-HXCDF	0.849 pg/L	
		1,2,3,6,7,8-HXCDD	0.798 pg/L	
		1,2,3,6,7,8-HXCDF	0.507 pg/L	
		1,2,3,7,8,9-HXCDD	0.671 pg/L	
		1,2,3,7,8,9-HXCDF	1.39 pg/L	
		1,2,3,7,8-PECDD	0.845 pg/L	
		1,2,3,7,8-PECDF	0.852 pg/L	
		2,3,4,7,8-PECDF	0.413 pg/L	
		OCDD	3.47 pg/L	
		OCDF	2.37 pg/L	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-011414(RES)	1,2,3,4,6,7,8-HPCDD	0.524 pg/L	0.524U pg/L
EB-011414(RES)	1,2,3,4,6,7,8-HPCDF	0.280 pg/L	0.280U pg/L
EB-011414(RES)	1,2,3,4,7,8,9-HPCDF	0.352 pg/L	0.352U pg/L
EB-011414(RES)	1,2,3,4,7,8-HXCDF	0.302 pg/L	0.302U pg/L
EB-011414(RES)	1,2,3,6,7,8-HXCDD	0.852 pg/L	0.852U pg/L
EB-011414(RES)	1,2,3,6,7,8-HXCDF	0.501 pg/L	0.501U pg/L
EB-011414(RES)	1,2,3,7,8-PECDF	0.459 pg/L	0.459U pg/L
EB-011414(RES)	OCDD	0.900 pg/L	0.900U pg/L
EB-011414(RES)	OCDF	1.27 pg/L	1.27U pg/L

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK0210B371900	1/23/2014 7:00:00 PM	1,2,3,4,6,7,8-HPCDD	0.121 ng/Kg	SL-1139-SA5B-SB-4.0-5.0
		1,2,3,4,6,7,8-HPCDF	0.0573 ng/Kg	SL-839-SA5B-SB-0.0-0.5
		1,2,3,4,7,8,9-HPCDF	0.0611 ng/Kg	SL-839-SA5B-SB-15.5-16.5
		1,2,3,4,7,8-HxCDD	0.0478 ng/Kg	SL-839-SA5B-SB-4.0-5.0
		1,2,3,4,7,8-HXCDF	0.0277 ng/Kg	SL-839-SA5B-SB-9.0-10.0
		1,2,3,6,7,8-HXCDD	0.0467 ng/Kg	SL-843-SA5B-SB-0.0-0.5
		1,2,3,6,7,8-HXCDF	0.0458 ng/Kg	SL-843-SA5B-SB-4.0-5.0
		1,2,3,7,8,9-HXCDD	0.0330 ng/Kg	SL-843-SA5B-SB-7.0-8.0
		1,2,3,7,8,9-HXCDF	0.0999 ng/Kg	
		1,2,3,7,8-PECDF	0.0637 ng/Kg	
		2,3,4,6,7,8-HXCDF	0.0497 ng/Kg	
		2,3,4,7,8-PECDF	0.0767 ng/Kg	
		OCDD	0.267 ng/Kg	
		OCDF	0.235 ng/Kg	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-1139-SA5B-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.397 ng/Kg	0.397U ng/Kg
SL-1139-SA5B-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.171 ng/Kg	0.171U ng/Kg
SL-1139-SA5B-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0790 ng/Kg	0.0790U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-1139-SA5B-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.0806 ng/Kg	0.0806U ng/Kg
SL-1139-SA5B-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.152 ng/Kg	0.152U ng/Kg
SL-1139-SA5B-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.399 ng/Kg	0.399U ng/Kg
SL-1139-SA5B-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.153 ng/Kg	0.153U ng/Kg
SL-1139-SA5B-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.158 ng/Kg	0.158U ng/Kg
SL-1139-SA5B-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.336 ng/Kg	0.336U ng/Kg
SL-1139-SA5B-SB-4.0-5.0(RES)	OCDF	0.373 ng/Kg	0.373U ng/Kg
SL-839-SA5B-SB-0.0-0.5(RES)	1,2,3,4,6,7,8-HPCDD	0.448 ng/Kg	0.448U ng/Kg
SL-839-SA5B-SB-0.0-0.5(RES)	1,2,3,4,6,7,8-HPCDF	0.143 ng/Kg	0.143U ng/Kg
SL-839-SA5B-SB-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0755 ng/Kg	0.0755U ng/Kg
SL-839-SA5B-SB-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.0681 ng/Kg	0.0681U ng/Kg
SL-839-SA5B-SB-0.0-0.5(RES)	1,2,3,6,7,8-HXCDD	0.175 ng/Kg	0.175U ng/Kg
SL-839-SA5B-SB-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.0935 ng/Kg	0.0935U ng/Kg
SL-839-SA5B-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.219 ng/Kg	0.219U ng/Kg
SL-839-SA5B-SB-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.0263 ng/Kg	0.0263U ng/Kg
SL-839-SA5B-SB-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.0752 ng/Kg	0.0752U ng/Kg
SL-839-SA5B-SB-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.103 ng/Kg	0.103U ng/Kg
SL-839-SA5B-SB-0.0-0.5(RES)	OCDF	0.408 ng/Kg	0.408U ng/Kg
SL-839-SA5B-SB-15.5-16.5(RES)	1,2,3,4,6,7,8-HPCDF	0.203 ng/Kg	0.203U ng/Kg
SL-839-SA5B-SB-15.5-16.5(RES)	1,2,3,4,7,8,9-HPCDF	0.111 ng/Kg	0.111U ng/Kg
SL-839-SA5B-SB-15.5-16.5(RES)	1,2,3,4,7,8-HXCDF	0.121 ng/Kg	0.121U ng/Kg
SL-839-SA5B-SB-15.5-16.5(RES)	1,2,3,6,7,8-HXCDF	0.0755 ng/Kg	0.0755U ng/Kg
SL-839-SA5B-SB-15.5-16.5(RES)	1,2,3,7,8,9-HXCDD	0.0405 ng/Kg	0.0405U ng/Kg
SL-839-SA5B-SB-15.5-16.5(RES)	1,2,3,7,8,9-HXCDF	0.0988 ng/Kg	0.0988U ng/Kg
SL-839-SA5B-SB-15.5-16.5(RES)	1,2,3,7,8-PECDF	0.0717 ng/Kg	0.0717U ng/Kg
SL-839-SA5B-SB-15.5-16.5(RES)	2,3,4,6,7,8-HXCDF	0.0712 ng/Kg	0.0712U ng/Kg
SL-839-SA5B-SB-15.5-16.5(RES)	2,3,4,7,8-PECDF	0.118 ng/Kg	0.118U ng/Kg
SL-839-SA5B-SB-15.5-16.5(RES)	OCDF	0.332 ng/Kg	0.332U ng/Kg
SL-839-SA5B-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.258 ng/Kg	0.258U ng/Kg
SL-839-SA5B-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.105 ng/Kg	0.105U ng/Kg
SL-839-SA5B-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0310 ng/Kg	0.0310U ng/Kg
SL-839-SA5B-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0493 ng/Kg	0.0493U ng/Kg
SL-839-SA5B-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDD	0.175 ng/Kg	0.175U ng/Kg
SL-839-SA5B-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0734 ng/Kg	0.0734U ng/Kg
SL-839-SA5B-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.254 ng/Kg	0.254U ng/Kg
SL-839-SA5B-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.110 ng/Kg	0.110U ng/Kg
SL-839-SA5B-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0581 ng/Kg	0.0581U ng/Kg
SL-839-SA5B-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0880 ng/Kg	0.0880U ng/Kg
SL-839-SA5B-SB-4.0-5.0(RES)	OCDF	0.257 ng/Kg	0.257U ng/Kg
SL-839-SA5B-SB-9.0-10.0(RES)	1,2,3,4,7,8,9-HPCDF	0.107 ng/Kg	0.107U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-839-SA5B-SB-9.0-10.0(RES)	1,2,3,4,7,8-HxCDD	0.0509 ng/Kg	0.0509U ng/Kg
SL-839-SA5B-SB-9.0-10.0(RES)	1,2,3,4,7,8-HXCDF	0.0887 ng/Kg	0.0887U ng/Kg
SL-839-SA5B-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDF	0.107 ng/Kg	0.107U ng/Kg
SL-839-SA5B-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDF	0.277 ng/Kg	0.277U ng/Kg
SL-839-SA5B-SB-9.0-10.0(RES)	1,2,3,7,8-PECDF	0.0974 ng/Kg	0.0974U ng/Kg
SL-839-SA5B-SB-9.0-10.0(RES)	2,3,4,6,7,8-HXCDF	0.0936 ng/Kg	0.0936U ng/Kg
SL-839-SA5B-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.129 ng/Kg	0.129U ng/Kg
SL-843-SA5B-SB-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.114 ng/Kg	0.114U ng/Kg
SL-843-SA5B-SB-0.0-0.5(RES)	1,2,3,4,7,8-HxCDD	0.0643 ng/Kg	0.0643U ng/Kg
SL-843-SA5B-SB-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.203 ng/Kg	0.203U ng/Kg
SL-843-SA5B-SB-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.128 ng/Kg	0.128U ng/Kg
SL-843-SA5B-SB-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.138 ng/Kg	0.138U ng/Kg
SL-843-SA5B-SB-0.0-0.5(RES)	OCDF	0.932 ng/Kg	0.932U ng/Kg
SL-843-SA5B-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.253 ng/Kg	0.253U ng/Kg
SL-843-SA5B-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.131 ng/Kg	0.131U ng/Kg
SL-843-SA5B-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.146 ng/Kg	0.146U ng/Kg
SL-843-SA5B-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.377 ng/Kg	0.377U ng/Kg
SL-843-SA5B-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.138 ng/Kg	0.138U ng/Kg
SL-843-SA5B-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.316 ng/Kg	0.316U ng/Kg
SL-843-SA5B-SB-4.0-5.0(RES)	OCDF	0.709 ng/Kg	0.709U ng/Kg
SL-843-SA5B-SB-7.0-8.0(RES)	1,2,3,4,7,8,9-HPCDF	0.136 ng/Kg	0.136U ng/Kg
SL-843-SA5B-SB-7.0-8.0(RES)	1,2,3,4,7,8-HxCDD	0.0693 ng/Kg	0.0693U ng/Kg
SL-843-SA5B-SB-7.0-8.0(RES)	1,2,3,6,7,8-HXCDD	0.187 ng/Kg	0.187U ng/Kg
SL-843-SA5B-SB-7.0-8.0(RES)	1,2,3,6,7,8-HXCDF	0.134 ng/Kg	0.134U ng/Kg
SL-843-SA5B-SB-7.0-8.0(RES)	1,2,3,7,8,9-HXCDF	0.160 ng/Kg	0.160U ng/Kg
SL-843-SA5B-SB-7.0-8.0(RES)	1,2,3,7,8-PECDF	0.242 ng/Kg	0.242U ng/Kg
SL-843-SA5B-SB-7.0-8.0(RES)	2,3,4,6,7,8-HXCDF	0.130 ng/Kg	0.130U ng/Kg
SL-843-SA5B-SB-7.0-8.0(RES)	2,3,4,7,8-PECDF	0.185 ng/Kg	0.185U ng/Kg

Method: **6010C**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P02135BB220304	1/24/2014 3:04:00 AM	CALCIUM MAGNESIUM	0.0510 mg/L 0.0191 mg/L	EB-011414

Method Blank Outlier Report

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: **6010C**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P02037AB221330	1/21/2014 1:30:00 PM	LITHIUM TIN ZINC	0.44 mg/Kg 1.72 mg/Kg 1.24 mg/Kg	SL-1139-SA5B-SB-4.0-5.0 SL-839-SA5B-SB-0.0-0.5 SL-839-SA5B-SB-15.5-16.5 SL-839-SA5B-SB-4.0-5.0 SL-839-SA5B-SB-9.0-10.0 SL-843-SA5B-SB-0.0-0.5 SL-843-SA5B-SB-4.0-5.0 SL-843-SA5B-SB-7.0-8.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-1139-SA5B-SB-4.0-5.0(RES)	TIN	3.22 mg/Kg	3.22U mg/Kg
SL-839-SA5B-SB-0.0-0.5(RES)	TIN	3.22 mg/Kg	3.22U mg/Kg
SL-839-SA5B-SB-15.5-16.5(RES)	TIN	2.99 mg/Kg	2.99U mg/Kg
SL-839-SA5B-SB-4.0-5.0(RES)	TIN	3.30 mg/Kg	3.30U mg/Kg
SL-839-SA5B-SB-9.0-10.0(RES)	TIN	3.23 mg/Kg	3.23U mg/Kg
SL-843-SA5B-SB-0.0-0.5(RES)	TIN	3.28 mg/Kg	3.28U mg/Kg
SL-843-SA5B-SB-4.0-5.0(RES)	TIN	3.37 mg/Kg	3.37U mg/Kg
SL-843-SA5B-SB-7.0-8.0(RES)	TIN	3.19 mg/Kg	3.19U mg/Kg

Method: **8270D SIM**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWH02B261809	1/24/2014 6:09:00 PM	BIS(2-ETHYLHEXYL)PHTHALATE	0.18 ug/L	EB-011414

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-011414(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	0.090 ug/L	1.1U ug/L

Field Blank Outlier Report

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: **6010C**
Matrix: **SO**

Field Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
FB-041613(REA2/TOT)	4/16/2013 3:15:00 PM	MOLYBDENUM TIN	0.0132 mg/L 0.0029 mg/L	SL-1139-SA5B-SB-4.0-5.0 SL-839-SA5B-SB-0.0-0.5 SL-839-SA5B-SB-15.5-16.5 SL-839-SA5B-SB-4.0-5.0 SL-839-SA5B-SB-9.0-10.0 SL-843-SA5B-SB-0.0-0.5 SL-843-SA5B-SB-4.0-5.0 SL-843-SA5B-SB-7.0-8.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-1139-SA5B-SB-4.0-5.0(RES)	MOLYBDENUM	1.65 mg/Kg	1.65U mg/Kg
SL-839-SA5B-SB-0.0-0.5(RES)	MOLYBDENUM	0.264 mg/Kg	0.264U mg/Kg
SL-839-SA5B-SB-15.5-16.5(RES)	MOLYBDENUM	0.271 mg/Kg	0.271U mg/Kg
SL-839-SA5B-SB-4.0-5.0(RES)	MOLYBDENUM	2.13 mg/Kg	2.13U mg/Kg
SL-839-SA5B-SB-9.0-10.0(RES)	MOLYBDENUM	0.542 mg/Kg	0.542U mg/Kg
SL-843-SA5B-SB-0.0-0.5(RES)	MOLYBDENUM	0.485 mg/Kg	0.485U mg/Kg
SL-843-SA5B-SB-4.0-5.0(RES)	MOLYBDENUM	0.349 mg/Kg	0.349U mg/Kg
SL-843-SA5B-SB-7.0-8.0(RES)	MOLYBDENUM	0.243 mg/Kg	0.243U mg/Kg

Surrogate Outlier Report

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: **8082A**
Matrix: **SO**

Sample ID (Analysis Type)	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-843-SA5B-SB-0.0-0.5	TETRACHLORO-M-XYLENE	125	45-120	All Target Analytes	J (all detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: 6010C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-839-SA5B-SB-4.0-5.0MS (TOT) **SL-839-SA5B-SB-4.0-5.0MSD (TOT)** (SL-1139-SA5B-SB-4.0-5.0 SL-839-SA5B-SB-0.0-0.5 SL-839-SA5B-SB-15.5-16.5 SL-839-SA5B-SB-4.0-5.0 SL-839-SA5B-SB-9.0-10.0 SL-843-SA5B-SB-0.0-0.5 SL-843-SA5B-SB-4.0-5.0 SL-843-SA5B-SB-7.0-8.0)	ALUMINUM CALCIUM IRON MAGNESIUM MANGANESE TITANIUM	1856 177 1232 238 213 233	1826 150 1208 236 136 267	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - - -	ALUMINUM CALCIUM IRON MAGNESIUM MANGANESE TITANIUM	No Qual, >4x
SL-839-SA5B-SB-4.0-5.0MS (TOT) **SL-839-SA5B-SB-4.0-5.0MSD (TOT)** (SL-1139-SA5B-SB-4.0-5.0 SL-839-SA5B-SB-0.0-0.5 SL-839-SA5B-SB-15.5-16.5 SL-839-SA5B-SB-4.0-5.0 SL-839-SA5B-SB-9.0-10.0 SL-843-SA5B-SB-0.0-0.5 SL-843-SA5B-SB-4.0-5.0 SL-843-SA5B-SB-7.0-8.0)	ANTIMONY	69	68	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects)

Method: 6020A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-839-SA5B-SB-4.0-5.0MS (TOT) **SL-839-SA5B-SB-4.0-5.0MSD (TOT)** (SL-1139-SA5B-SB-4.0-5.0 SL-839-SA5B-SB-0.0-0.5 SL-839-SA5B-SB-15.5-16.5 SL-839-SA5B-SB-4.0-5.0 SL-839-SA5B-SB-9.0-10.0 SL-843-SA5B-SB-0.0-0.5 SL-843-SA5B-SB-4.0-5.0 SL-843-SA5B-SB-7.0-8.0)	STRONTIUM	132	158	75.00-125.00	-	STRONTIUM	J(all detects)

Method: 8270D SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-839-SA5B-SB-4.0-5.0MS **SL-839-SA5B-SB-4.0-5.0MSD** (SL-839-SA5B-SB-4.0-5.0)	Di-n-octylphthalate PYRENE	173 -	175 149	52.00-162.00 26.00-143.00	- -	Di-n-octylphthalate PYRENE	J(all detects)

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: **8015M**
Matrix: **SO**

QC Sample ID (Associated Samples)	*Compound*	*MS %R*	*MSD %R*	*%R Limits*	*RPD (Limits)*	*Affected Compounds*	*Flag*
SL-839-SA5B-SB-4.0-5.0MSD	EFH (C21-C30)	-	151	49.00-123.00	33 (20.00)	EFH (C21-C30)	
(SL-839-SA5B-SB-4.0-5.0)	EFH (C30-C40)	-	194	49.00-123.00	68 (20.00)	EFH (C30-C40)	J(all detects)
	EFH (C8-C11)	-	-	49.00-123.00	25 (20.00)	EFH (C8-C11)	

Lab Duplicate Outlier Report

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: 7471B
Matrix: SO

QC Sample ID (Associated Sample ID)	*Analyte*	*Sample RPD*	*eQAPP RPD*	*Flag*
SL-839-SA5B-SB-0.0-0.5DUP (TOT) (SL-839-SA5B-SB-0.0-0.5 SL -843-SA5B-SB-0.0-0.5)	MERCURY	86	20.00	No Qual, OK by Difference

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: 8270D SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P2LCLCSQ260334	BIS(2-ETHYLHEXYL)PHTHALAT	132	-	79.00-121.00	-	BIS(2-ETHYLHEXYL)PHTHALA	
(SL-1139-SA5B-SB-4.0-5.0	Butylbenzylphthalate	128	-	77.00-123.00	-	Butylbenzylphthalate	
SL-839-SA5B-SB-0.0-0.5 SL-839-SA5B-SB-15.5-16.5 SL-839-SA5B-SB-4.0-5.0 SL-839-SA5B-SB-9.0-10.0 SL-843-SA5B-SB-0.0-0.5 SL-843-SA5B-SB-4.0-5.0 SL-843-SA5B-SB-7.0-8.0)							J (all detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-839-SA5B-SB-4.0-5.0	SL-1139-SA5B-SB-4.0-5.0			
MOISTURE	9.2	8.6	7		No Qualifiers Applied

Method: 1613B
Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-839-SA5B-SB-4.0-5.0	SL-1139-SA5B-SB-4.0-5.0			
1,2,3,4,6,7,8-HPCDD	0.258	0.397	42	50.00	
1,2,3,4,6,7,8-HPCDF	0.105	0.171	48	50.00	
1,2,3,6,7,8-HXCDD	0.175	0.260	39	50.00	
1,2,3,7,8,9-HXCDD	0.299	0.424	35	50.00	
1,2,3,7,8,9-HXCDF	0.254	0.399	44	50.00	No Qualifiers Applied
1,2,3,7,8-PECDF	0.110	0.153	33	50.00	
OCDD	2.31	3.41	38	50.00	
OCDF	0.257	0.373	37	50.00	
1,2,3,4,7,8,9-HPCDF	0.0310	0.0790	87	50.00	
1,2,3,4,7,8-HxCDD	5.42 U	0.0806	200	50.00	
1,2,3,4,7,8-HXCDF	0.0493	0.163	107	50.00	
1,2,3,6,7,8-HXCDF	0.0734	0.152	70	50.00	J(all detects)
1,2,3,7,8-PECDD	0.0930	0.0499	60	50.00	UJ(all non-detects)
2,3,4,6,7,8-HXCDF	0.0581	0.158	92	50.00	
2,3,4,7,8-PECDF	0.0880	0.336	117	50.00	
2,3,7,8-TCDF	1.08 U	0.0983	200	50.00	

Method: 6010C
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-839-SA5B-SB-4.0-5.0 (TOT)	SL-1139-SA5B-SB-4.0-5.0 (TOT)			
ALUMINUM	15800	15000	5	50.00	
ARSENIC	4.40	4.48	2	50.00	
BARIUM	99.0	102	3	50.00	
BERYLLIUM	0.712	0.717	1	50.00	
BORON	1.66	1.30	24	50.00	
CALCIUM	3510	3650	4	50.00	
CHROMIUM	24.4	23.6	3	50.00	
COBALT	5.36	5.77	7	50.00	
COPPER	17.3	17.6	2	50.00	
IRON	22200	23200	4	50.00	
LEAD	6.13	6.30	3	50.00	
LITHIUM	26.6	25.2	5	50.00	
MAGNESIUM	4750	4850	2	50.00	No Qualifiers Applied
MANGANESE	319	329	3	50.00	
MOLYBDENUM	2.13	1.65	25	50.00	
NICKEL	12.5	13.2	5	50.00	
PHOSPHORUS	345	351	2	50.00	
POTASSIUM	2770	2710	2	50.00	
SODIUM	175	171	2	50.00	
TIN	3.30	3.22	2	50.00	
TITANIUM	1220	1110	9	50.00	
VANADIUM	38.9	39.2	1	50.00	
ZINC	55.6	55.2	1	50.00	
Zirconium	3.37	2.96	13	50.00	

Field Duplicate RPD Report

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: 6020A
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-839-SA5B-SB-4.0-5.0 (TOT)	SL-1139-SA5B-SB-4.0-5.0 (TOT)			
SILVER	0.0355	0.0306	15	50.00	No Qualifiers Applied
STRONTIUM	24.3	23.6	3	50.00	
THALLIUM	0.260	0.266	2	50.00	
SELENIUM	0.436 U	0.124	200	50.00	J(all detects) UJ(all non-detects)

Method: 8082A
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-839-SA5B-SB-4.0-5.0	SL-1139-SA5B-SB-4.0-5.0			
AROCLOR 1248	7.8	19	84	50.00	J(all detects)

Method: 8270D SIM
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-839-SA5B-SB-4.0-5.0	SL-1139-SA5B-SB-4.0-5.0			
ANTHRACENE	0.75	0.67	11	50.00	No Qualifiers Applied
BENZO(A)ANTHRACENE	4.1	2.7	41	50.00	
BENZO(A)PYRENE	2.4	1.8	29	50.00	
FLUORANTHENE	5.8	6.2	7	50.00	
PHENANTHRENE	2.1	3.1	38	50.00	
PYRENE	7.0	8.3	17	50.00	
1-METHYLNAPHTHALENE	1.8 U	2.2	200	50.00	J(all detects) UJ(all non-detects)
2-METHYLNAPHTHALENE	1.8 U	3.4	200	50.00	
BENZO(B)FLUORANTHENE	6.0	3.0	67	50.00	
BENZO(G,H,I)PERYLENE	0.96	1.8 U	200	50.00	
BENZO(K)FLUORANTHENE	2.5	1.3	63	50.00	
CHRYSENE	14	3.4	122	50.00	
INDENO(1,2,3-CD)PYRENE	1.1	1.8 U	200	50.00	
NAPHTHALENE	0.76	1.8 U	200	50.00	

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-839-SA5B-SB-4.0-5.0	SL-1139-SA5B-SB-4.0-5.0			
PH	7.42	7.77	5	50.00	No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: 1613B
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-011414	1,2,3,4,6,7,8-HPCDD	JB	0.524	10.1	PQL	pg/L	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.280	10.1	PQL	pg/L	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.352	10.1	PQL	pg/L	
	1,2,3,4,7,8-HxCDD	J	0.537	10.1	PQL	pg/L	
	1,2,3,4,7,8-HXCDF	JBQ	0.302	10.1	PQL	pg/L	
	1,2,3,6,7,8-HXCDD	JBQ	0.852	10.1	PQL	pg/L	J (all detects)
	1,2,3,6,7,8-HXCDF	JBQ	0.501	10.1	PQL	pg/L	
	1,2,3,7,8-PECDF	JBQ	0.459	10.1	PQL	pg/L	
	2,3,4,6,7,8-HXCDF	J	0.404	10.1	PQL	pg/L	
	OCDD	JB	0.900	20.1	PQL	pg/L	
	OCDF	JBQ	1.27	20.1	PQL	pg/L	

Method: 6010C
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-011414	BARIUM	J	0.00036	0.0100	PQL	mg/L	J (all detects)

Method: 8270D SIM
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-011414	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.090	1.1	PQL	ug/L	
	Diethylphthalate	J	0.44	1.1	PQL	ug/L	J (all detects)
	Di-n-butylphthalate	J	0.17	1.1	PQL	ug/L	

Method: 1613B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-1139-SA5B-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.397	5.23	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.171	5.23	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0790	5.23	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0806	5.23	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.163	5.23	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.260	5.23	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.152	5.23	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.424	5.23	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.399	5.23	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	J	0.0499	5.23	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.153	5.23	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.158	5.23	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.336	5.23	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0983	1.05	PQL	ng/Kg	
	OCDD	JB	3.41	10.5	PQL	ng/Kg	
	OCDF	JBQ	0.373	10.5	PQL	ng/Kg	

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Reporting Limit Outliers

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-839-SA5B-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JBQ	0.448	5.18	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.143	5.18	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0755	5.18	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0681	5.18	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.175	5.18	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0935	5.18	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.261	5.18	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.219	5.18	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.0469	5.18	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0263	5.18	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0752	5.18	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.103	5.18	PQL	ng/Kg	
	OCDD	JB	4.52	10.4	PQL	ng/Kg	
	OCDF	JB	0.408	10.4	PQL	ng/Kg	
SL-839-SA5B-SB-15.5-16.5	1,2,3,4,6,7,8-HPCDD	JB	0.733	5.65	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.203	5.65	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.111	5.65	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.121	5.65	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0755	5.65	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0405	5.65	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.0988	5.65	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0717	5.65	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0712	5.65	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.118	5.65	PQL	ng/Kg	
	OCDD	JB	3.21	11.3	PQL	ng/Kg	
	OCDF	JB	0.332	11.3	PQL	ng/Kg	
SL-839-SA5B-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.258	5.42	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.105	5.42	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0310	5.42	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0493	5.42	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.175	5.42	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0734	5.42	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.299	5.42	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.254	5.42	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.0930	5.42	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.110	5.42	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0581	5.42	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0880	5.42	PQL	ng/Kg	
	OCDD	JBQ	2.31	10.8	PQL	ng/Kg	
	OCDF	JBQ	0.257	10.8	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-839-SA5B-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JB	4.26	5.13	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	1.24	5.13	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.107	5.13	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0509	5.13	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0887	5.13	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.316	5.13	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.107	5.13	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.385	5.13	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.277	5.13	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.0711	5.13	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0974	5.13	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0936	5.13	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.129	5.13	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0640	1.03	PQL	ng/Kg	
	OCDF	JB	6.51	10.3	PQL	ng/Kg	
SL-843-SA5B-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	2.08	5.49	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.449	5.49	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.114	5.49	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0643	5.49	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.177	5.49	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.665	5.49	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.203	5.49	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	1.01	5.49	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.717	5.49	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.242	5.49	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.332	5.49	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.128	5.49	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.138	5.49	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0867	1.10	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.134	1.10	PQL	ng/Kg	
	OCDF	JB	0.932	11.0	PQL	ng/Kg	
SL-843-SA5B-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	1.18	5.63	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.253	5.63	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.131	5.63	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.146	5.63	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.222	5.63	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.275	5.63	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.247	5.63	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.366	5.63	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.377	5.63	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	J	0.311	5.63	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.444	5.63	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.138	5.63	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.316	5.63	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.137	1.13	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.149	1.13	PQL	ng/Kg	
	OCDD	JB	10.6	11.3	PQL	ng/Kg	
	OCDF	JB	0.709	11.3	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-843-SA5B-SB-7.0-8.0	1,2,3,4,6,7,8-HPCDD	JB	3.30	5.56	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.631	5.56	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.136	5.56	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0693	5.56	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.161	5.56	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.187	5.56	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.134	5.56	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.194	5.56	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.160	5.56	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.105	5.56	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.242	5.56	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.130	5.56	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.185	5.56	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0741	1.11	PQL	ng/Kg	
	OCDF	JB	1.46	11.1	PQL	ng/Kg	

Method: 6010C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-1139-SA5B-SB-4.0-5.0	BERYLLIUM	J	0.717	1.07	PQL	mg/Kg	
	BORON	J	1.30	10.7	PQL	mg/Kg	
	MOLYBDENUM	J	1.65	2.15	PQL	mg/Kg	J (all detects)
	TIN	J	3.22	10.7	PQL	mg/Kg	
	Zirconium	J	2.96	5.36	PQL	mg/Kg	
SL-839-SA5B-SB-0.0-0.5	BERYLLIUM	J	0.725	1.06	PQL	mg/Kg	
	BORON	J	1.26	10.6	PQL	mg/Kg	
	MOLYBDENUM	J	0.264	2.11	PQL	mg/Kg	J (all detects)
	TIN	J	3.22	10.6	PQL	mg/Kg	
	Zirconium	J	3.38	5.28	PQL	mg/Kg	
SL-839-SA5B-SB-15.5-16.5	ARSENIC	J	3.37	4.47	PQL	mg/Kg	
	BERYLLIUM	J	0.462	1.12	PQL	mg/Kg	
	BORON	J	1.98	11.2	PQL	mg/Kg	J (all detects)
	MOLYBDENUM	J	0.271	2.23	PQL	mg/Kg	
	TIN	J	2.99	11.2	PQL	mg/Kg	
	Zirconium	J	4.55	5.58	PQL	mg/Kg	
SL-839-SA5B-SB-4.0-5.0	BERYLLIUM	J	0.712	1.09	PQL	mg/Kg	
	BORON	J	1.66	10.9	PQL	mg/Kg	
	MOLYBDENUM	J	2.13	2.18	PQL	mg/Kg	J (all detects)
	TIN	J	3.30	10.9	PQL	mg/Kg	
	Zirconium	J	3.37	5.45	PQL	mg/Kg	
SL-839-SA5B-SB-9.0-10.0	BERYLLIUM	J	0.730	1.08	PQL	mg/Kg	
	BORON	J	1.03	10.8	PQL	mg/Kg	
	MOLYBDENUM	J	0.542	2.16	PQL	mg/Kg	J (all detects)
	TIN	J	3.23	10.8	PQL	mg/Kg	
	Zirconium	J	3.22	5.40	PQL	mg/Kg	
SL-843-SA5B-SB-0.0-0.5	BERYLLIUM	J	0.890	1.08	PQL	mg/Kg	
	MOLYBDENUM	J	0.485	2.16	PQL	mg/Kg	J (all detects)
	TIN	J	3.28	10.8	PQL	mg/Kg	
	Zirconium	J	3.78	5.41	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: 6010C
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-843-SA5B-SB-4.0-5.0	BERYLLIUM	J	1.01	1.13	PQL	mg/Kg	J (all detects)
	BORON	J	3.71	11.3	PQL	mg/Kg	
	MOLYBDENUM	J	0.349	2.25	PQL	mg/Kg	
	TIN	J	3.37	11.3	PQL	mg/Kg	
	Zirconium	J	4.02	5.63	PQL	mg/Kg	
SL-843-SA5B-SB-7.0-8.0	BERYLLIUM	J	0.765	1.10	PQL	mg/Kg	J (all detects)
	BORON	J	1.10	11.0	PQL	mg/Kg	
	MOLYBDENUM	J	0.243	2.20	PQL	mg/Kg	
	TIN	J	3.19	11.0	PQL	mg/Kg	
	Zirconium	J	3.43	5.51	PQL	mg/Kg	

Method: 6020A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-1139-SA5B-SB-4.0-5.0	SELENIUM	J	0.124	0.429	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0306	0.215	PQL	mg/Kg	
SL-839-SA5B-SB-0.0-0.5	SELENIUM	J	0.145	0.422	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0715	0.211	PQL	mg/Kg	
SL-839-SA5B-SB-15.5-16.5	SILVER	J	0.0323	0.223	PQL	mg/Kg	J (all detects)
	THALLIUM	J	0.188	0.223	PQL	mg/Kg	
SL-839-SA5B-SB-4.0-5.0	SILVER	J	0.0355	0.218	PQL	mg/Kg	J (all detects)
SL-839-SA5B-SB-9.0-10.0	SELENIUM	J	0.122	0.432	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0466	0.216	PQL	mg/Kg	
SL-843-SA5B-SB-0.0-0.5	SELENIUM	J	0.184	0.433	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0418	0.216	PQL	mg/Kg	
SL-843-SA5B-SB-4.0-5.0	SELENIUM	J	0.130	0.451	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0956	0.225	PQL	mg/Kg	
SL-843-SA5B-SB-7.0-8.0	SILVER	J	0.0573	0.220	PQL	mg/Kg	J (all detects)

Method: 7471B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-843-SA5B-SB-4.0-5.0	MERCURY	J	0.0129	0.0178	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-839-SA5B-SB-15.5-16.5	EFH (C21-C30)	J	4.6	5.8	PQL	mg/Kg	J (all detects)
	EFH (C30-C40)	J	7.4	12	PQL	mg/Kg	
	EFH (C8-C11)	J	4.5	5.8	PQL	mg/Kg	
SL-839-SA5B-SB-9.0-10.0	EFH (C21-C30)	J	4.2	5.5	PQL	mg/Kg	J (all detects)
SL-843-SA5B-SB-4.0-5.0	EFH (C21-C30)	J	4.8	5.7	PQL	mg/Kg	J (all detects)
SL-843-SA5B-SB-7.0-8.0	EFH (C21-C30)	J	5.1	5.6	PQL	mg/Kg	J (all detects)

Method: 8082A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-839-SA5B-SB-4.0-5.0	AROCLOR 1248	J	7.8	19	PQL	ug/Kg	J (all detects)
SL-843-SA5B-SB-0.0-0.5	AROCLOR 1248	J	6.7	19	PQL	ug/Kg	J (all detects)
	AROCLOR 1254	J	7.7	19	PQL	ug/Kg	
SL-843-SA5B-SB-4.0-5.0	AROCLOR 1248	J	8.6	19	PQL	ug/Kg	J (all detects)
	AROCLOR 1254	J	6.5	19	PQL	ug/Kg	
SL-843-SA5B-SB-7.0-8.0	AROCLOR 1248	J	14	19	PQL	ug/Kg	J (all detects)
	AROCLOR 1254	J	11	19	PQL	ug/Kg	

Method: 8270D SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-1139-SA5B-SB-4.0-5.0	ANTHRACENE	J	0.67	1.8	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	1.3	1.8	PQL	ug/Kg	
SL-839-SA5B-SB-0.0-0.5	BENZO(E)PYRENE	J	7.2	18	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	0.99	1.8	PQL	ug/Kg	
SL-839-SA5B-SB-15.5-16.5	1-METHYLNAPHTHALENE	J	0.87	1.9	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.2	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	1.1	1.9	PQL	ug/Kg	
SL-839-SA5B-SB-4.0-5.0	ANTHRACENE	J	0.75	1.8	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	0.96	1.8	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.1	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	0.76	1.8	PQL	ug/Kg	
SL-839-SA5B-SB-9.0-10.0	ANTHRACENE	J	1.6	1.8	PQL	ug/Kg	J (all detects)
	BENZO(E)PYRENE	J	4.7	19	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.5	1.8	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.7	1.8	PQL	ug/Kg	
SL-843-SA5B-SB-0.0-0.5	ANTHRACENE	J	0.55	1.9	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.7	1.9	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.5	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	1.8	1.9	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH159 **Laboratory: LL**

EDD Filename: PH159_v1 **eQAPP Name: CDM_SSFL_140113_Lan**

Method: **8270D SIM**

Matrix: **SO**

SampleID	*Analyte*	*Lab Qual*	*Result*	*Reporting Limit*	*RL Type*	*Units*	*Flag*
SL-843-SA5B-SB-4.0-5.0	BENZO(A)PYRENE	J	0.95	1.9	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	1.1	1.9	PQL	ug/Kg	
	CHRYSENE	J	1.6	1.9	PQL	ug/Kg	
	FLUORANTHENE	J	1.1	1.9	PQL	ug/Kg	J (all detects)
	NAPHTHALENE	J	0.91	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	1.1	1.9	PQL	ug/Kg	
	PYRENE	J	1.4	1.9	PQL	ug/Kg	
SL-843-SA5B-SB-7.0-8.0	BENZO(A)ANTHRACENE	J	1.4	1.9	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.7	1.9	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.74	1.9	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	1.3	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	1.7	1.9	PQL	ug/Kg	

LDC #: 31413B4 **VALIDATION COMPLETENESS WORKSHEET** Date: 3/14/14
SDG #: PH159 ADR Page: 1 of 1
Laboratory: Eurofins Lancaster Laboratories Reviewer: CL
2nd Reviewer: SM

METHOD: Metals (EPA SW 846 Method 6010C/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	—	Sampling dates: 1/14/14
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	
V.	ICP Interference Check Sample (ICS) Analysis	—	
VI.	Matrix Spike Analysis	SW	MS/D
VII.	Duplicate Sample Analysis	A	Dup (Hg ok by difference)
VIII.	Laboratory Control Samples (LCS)	N	
IX.	Internal Standard (ICP-MS)	N	
X.	ICP Serial Dilution	SW	
XI.	Sample Result Verification	N	
XII.	Overall Assessment of Data	N	
XIII.	Field Duplicates	—	(2,3)
XIV.	Field Blanks	SW	EB= 9 FB = FB-041613 (SDG PH032)

Note: A = Acceptable ND = No compounds detected D = Duplicate
N = Not provided/applicable R = Rinsate TB = Trip blank
SW = See worksheet FB = Field blank EB = Equipment blank

Validated Samples: Soil/water

1	SL-839-SA5B-SB-0.0-0.5	11	SL-839-SA5B-SB-4.0-5.0MSD	21		31	
2	SL-839-SA5B-SB-4.0-5.0	12	SL-839-SA5B-SB-4.0-5.0DUP	22		32	
3	SL-1139-SA5B-SB-4.0-5.0	13	(All) MS (Hg)	23		33	
4	SL-839-SA5B-SB-9.0-10.0	14	MSD	24		34	
5	SL-839-SA5B-SB-15.5-16.5	15	DUP	25		35	
6	SL-843-SA5B-SB-0.0-0.5	16		26		36	
7	SL-843-SA5B-SB-4.0-5.0	17		27		37	
8	SL-843-SA5B-SB-7.0-8.0	18		28		38	
9	EB-011414 W	19		29		39	
10	SL-839-SA5B-SB-4.0-5.0MS	20		30		40	

Notes: _____

LDC #: 31413B4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: CR
2nd Reviewer: SM

METHOD: Trace Metals (EPA SW846 6010B/7000)

Blank units: mg/L **Associated sample units:** mg/Kg
Sampling date: 1/14/14 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: All Soil

Analyte	Blank ID	Sample Identification										
	EB-011414 (SDG: PH159)	Action Limit	No qualifiers (>5x)									
Ba	0.00036	0.18										

Blank units: mg/L **Associated sample units:** mg/Kg
Sampling date: 4/16/13 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: All Soil

Analyte	Blank ID	Sample Identification										
	FB-041613 (SDG: PH032)	Action Limit	1	2	3	4	5	6	7	8		
Mo	0.0132	6.6	0.264 -	2.13 -	1.65 -	0.542 -	0.271 -	0.485 -	0.349 -	0.243 -		
Sn	0.0029	1.45										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

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74x: no qualifiers

QUALITY ASSURANCE SUMMARY
FORM 5A(MS/MSD)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE
SDG No.: PH159
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 7336140BKG Matrix Spike Lab Sample ID: 7336141MS Matrix Spike Duplicate Lab Sample ID: 7336142MSD
Batch Id(s): P02037A, P01538A

Analyte	Mass	BKG Sample Result	C	MS Sample Result	C	MSD Sample Result	C	MS Spike Added	MSD Spike Added	Units	MS %R	Q	MSD %R	Q	RPD	Q	Control Limit %R	Control Limit RPD	M
Aluminum		14331.2287		18005.5099		17947.6455		198.0198	198.0198	MG/KG	1856		1826		0			20	P
Antimony		0.7327	U	34.3238		33.6426		49.5050	49.5050	MG/KG	69	N	68	N	2		75 - 125	20	P
Arsenic		3.9960		19.3485		19.4881		14.8515	14.8515	MG/KG	103		104		1		75 - 125	20	P
Barium		89.9129		295.0198		284.7703		198.0198	198.0198	MG/KG	104		98		4		75 - 125	20	P
Beryllium		0.6465	B	5.6505		5.6485		4.9505	4.9505	MG/KG	101		101		0		75 - 125	20	P
Boron		1.5040	B	188.4188		189.2079		198.0198	198.0198	MG/KG	94		95		0		75 - 125	20	P
Cadmium		0.0752	U	4.1772		4.1614		4.9505	4.9505	MG/KG	84		84		0		75 - 125	20	P
Calcium		3187.0594		3887.2921		3782.6950		396.0396	396.0396	MG/KG	177		150		3			20	P
Chromium		22.1495		42.1693		43.0881		19.8020	19.8020	MG/KG	101		106		2		75 - 125	20	P
Cobalt		4.8653		51.8743		50.5653		49.5050	49.5050	MG/KG	95		92		3		75 - 125	20	P
Copper		15.6772		41.8832		42.4069		24.7525	24.7525	MG/KG	106		108		1		75 - 125	20	P
Iron		20148.9505		21369.1366		21345.1139		99.0099	99.0099	MG/KG	1232		1208		0			20	P
Lead		5.5624		20.0446		19.9297		14.8515	14.8515	MG/KG	98		97		1		75 - 125	20	P
Lithium		24.1733		122.9604		121.7208		99.0099	99.0099	MG/KG	100		99		1		75 - 125	20	P
Magnesium		4311.7426		4783.2752		4779.4485		198.0198	198.0198	MG/KG	238		236		0			20	P
Manganese		289.4842		394.6891		356.9188		49.5050	49.5050	MG/KG	213		136		10			20	P
Mercury		0.0099	U	0.1708		0.1743		0.1583	0.1585	MG/KG	108		110		2		65 - 135	20	CV
Molybdenum		1.9327	B	185.3921		184.6050		198.0198	198.0198	MG/KG	93		92		0		75 - 125	20	P
Nickel		11.3842		59.7485		59.2010		49.5050	49.5050	MG/KG	98		97		1		75 - 125	20	P
Phosphorus		313.3564		397.3218		411.8495		99.0099	99.0099	MG/KG	85		99		4		75 - 125	20	P
Potassium		2519.5713		3622.0228		3746.2267		990.0990	990.0990	MG/KG	111		124		3		75 - 125	20	P
Selenium	78	0.0990	U	2.1960		2.3802		1.9802	1.9802	MG/KG	111		120		8		75 - 125	20	MS
Silver	107	0.0322	B	10.7960		11.1307		9.9010	9.9010	MG/KG	109		112		3		75 - 125	20	MS
Sodium		159.1188		1121.0129		1115.8030		990.0990	990.0990	MG/KG	97		97		0		75 - 125	20	P
Strontium	88	22.0792		32.4950		34.6139		7.9208	7.9208	MG/KG	131	N	158	N	6		75 - 125	20	MS
Thallium	203	0.2360		0.6715		0.6760		0.3960	0.3960	MG/KG	110		111		1		75 - 125	20	MS
Tin		3.0000	B	349.1802		346.3465		396.0396	396.0396	MG/KG	87		87		1		75 - 125	20	P
Titanium		1104.2287		1334.9554		1368.9802		99.0099	99.0099	MG/KG	233		267		3			20	P
Vanadium		35.3337		88.3030		88.3000		49.5050	49.5050	MG/KG	107		107		0		75 - 125	20	P
Zinc		50.4871		96.7525		97.4901		49.5050	49.5050	MG/KG	93		95		1		75 - 125	20	P
Zirconium		3.0634	B	97.9950		97.5257		99.0099	99.0099	MG/KG	96		95		0		75 - 125	20	P

Note: Results shown are reported on an as-received basis.

METHODS:
P = ICP Atomic Emission Spectrometer CV = Cold Vapor
MS = ICP Mass Spectrometry AF = Cold Vapor Atomic Fluorescence

CONCENTRATION QUALIFIERS:
U= Below MDL, B= Below LOQ
FLAGS:
N = Matrix Spike OOS, * = Duplicate OOS

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QUALITY ASSURANCE SUMMARY
FORM 9
SERIAL DILUTIONS
SDG No.: PH159
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 7336140BKG Serial Dilution Lab Sample ID: 7336140L
Batch ID(s): P02037A
Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		144745.4100		149168.7000		3		P
Antimony		7.4000	U	37.0000	U			P
Arsenic		40.3600		35.3000	B	13		P
Barium		908.1200		948.2000		4		P
Beryllium		6.5300	B	6.9000	B	6		P
Boron		15.1900	B	42.0000	U	100		P
Cadmium		0.7600	U	3.8000	U			P
Calcium		32189.3000		33359.5500		4		P
Chromium		223.7100		234.4000		5		P
Cobalt		49.1400		52.3000		6		P
Copper		158.3400		168.4000		6		P
Iron		203504.4000		197045.3000		3		P
Lead		56.1800		43.7000	B	22		P
Lithium		244.1500		256.2000		5		P
Magnesium		43548.6000		44760.0000		3		P
Manganese		2923.7900		3085.0500		6		P
Molybdenum		19.5200	B	22.0000	B	13		P
Nickel		114.9800		121.6000		6		P
Phosphorus		3164.9000		3190.6500		1		P
Potassium		25447.6700		26172.2000		3		P
Selenium	78	0.5000	U	2.5000	U			MS
Silver	107	0.1627	B	0.6500	U	100		MS
Sodium		1607.1000		1629.5000	B	1		P
Strontium	88	111.5000		98.2000		12	E	MS
Thallium	203	1.1920		1.3020	B	9		MS
Tin		30.3000	B	32.8500	B	8		P
Titanium		11152.7100		11791.1500		6		P
Vanadium		356.8700		364.6000		2		P
Zinc		509.9200		520.1500		2		P
Zirconium		30.9400	B	42.0000	U	100		P

NOTE: An E in column Q indicates the presence of a chemical or physical interference in the matrix when the % difference is greater than 10%. This applies only when (I) is greater than or equal to 50x MDL for ICP, 100x MDL for ICP-MS (6020), 50x MDL for ICP-MS (200.8), or 25x MDL for GFAA.

J/05/A (A): All Soil

METHODS:
P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry

CONCENTRATION QUALIFIERS:
U= Below MDL
B= Below LOQ
FLAGS:
E = Matrix Effects exist as proven by Serial Dilution or Spiked Dilution

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

CDM
555 17th Street, Suite 1100
Denver, CO 80202
ATTN: Mrs. Cherie Zakowski

July 10, 2014

SUBJECT: Santa Susana Field Laboratory, FDG Block 1, Data Validation

Dear Mrs. Zakowski,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on June 11, 2014. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #31964:

SDG #	Fraction
PH172, PH173	Semivolatiles, Polychlorinated Biphenyls, Metals, Total Petroleum Hydrocarbons as Gasoline, Total Petroleum Hydrocarbons as Extractables, Dioxins/Dibenzofurans, Perchlorate

The data validation was performed under Level III & IV guidelines. The analyses were validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan for Santa Susana Field Laboratory, RCRA Facility Investigation, Surficial Media Operable Unit, March 2009, Revision 4
- USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, CLPNFG, June 2008
- USEPA, Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, January 2010
- USEPA, Contract Laboratory Program National Functional Guidelines for Polychlorinated Dioxins/Dibenzofurans Data Review, September 2005
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; Update IV, February 2007

Please feel free to contact us if you have any questions.

Sincerely,

Shauna McKellar
Project Manager/Chemist

2,827 pages-CD

Attachment 1

90/10 ADR/IV

LDC #31964 (CDM Federal Programs-Chantilly VA / Santa Susana Field Laboratory, FDG Block 1)

LDC	SDG#	DATE REC'D	(4) DATE DUE	SVOA (8270D -SIM)		PCBs (8082A)		Metals & Hg (SW846)		TPH-G (8015M)		TPH-E (8015M)		Dioxins (1613B)		CLO_4 (6850)																							
Matrix:	Water/Soil			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	PH172	06/11/14	07/09/14	0	1	0	1	0	1	-	-	0	2	0	1	-	-																				
B	PH173	06/11/14	07/09/14	1	4	1	4	1	4	1	0	2	0	1	4	1	4																				
Total	T/SM			1	5	1	5	1	5	1	0	2	2	1	5	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34

Shaded cells indicate Level IV validation (all other cells are ADR review). These sample counts do not include MS/MSD, and DUPs

Data Validation Report
Santa Susana Field Laboratory

Go Backs, Subgroup FDG Block 1

SDG: PH172

Prepared for

CDM Smith
555 17th Street, Suite 1100
Denver, CO 80202

Prepared by

Laboratory Data Consultants, Inc.
2701 Loker Ave West, Suite 220
Carlsbad, California 92010

July 10, 2014

INTRODUCTION

This Data Validation Report (DVR) presents Level III data validation results for samples collected on May 7, 2014. Data validation was performed in accordance with the Quality Assurance Project Plan (QAPP) for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines (CLPNFGs) for Superfund Organic Methods Data Review (June 2008), Polychlorinated Dioxins/Dibenzofurans Data Review (September 2005) and for Inorganic Data Review (January 2010). Where specific guidance is not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following methods:

Semivolatiles (SVOCs) by Environmental Protection Agency (EPA) SW 846 Method 8270D utilizing Selective Ion Monitoring (SIM)
Polychlorinated Biphenyls (PCBs) by EPA SW 846 Method 8082A
Metals by EPA SW 846 Method 6010C, 6020A, and 7471B.
Total Petroleum Hydrocarbons (TPH) as Extractables with and without Silica Gel Clean Up by EPA SW 846 Method 8015M
Dioxins and Dibenzofurans by EPA Method 1613B

The sample identification and methods of analyses performed on each sample is presented in Attachment 1. Overall data qualification summary is presented in Attachment 2. Level III Automated Data Review outliers are presented in Enclosure I.

All sample results were subjected to Level III data validation, which comprises an evaluation of quality control (QC) summary results for sample holding times, initial and continuing calibration blanks (ICB/CCBs), surrogates, internal standards (dioxins and dibenzofurans only), interference check (ICSA and ICSAB) samples, matrix spike/matrix spike duplicates (MS/MSD), laboratory duplicates (DUP), laboratory control sample/laboratory control sample duplicates (LCS/LCSD), ICP serial dilutions, method blanks, trip blanks, equipment blanks, and field blanks. No samples in this SDG were subjected to Level IV evaluation.

Automated data review was performed on all QC summary results using the Automated Data Review (ADR) software program (LDC, 2013) with the exception of ICB/CCBs, interference check samples, and ICP serial dilutions, which were validated manually. Quality assurance (QA)/QC criteria specified in the QAPP and CLPNFGs were incorporated with the program's reference library to assess compliance with project requirements.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met QC criteria.

II. Initial Calibration

Initial Calibration data were not reviewed for level III.

III. Continuing Calibration

Continuing calibration data were not reviewed for level III.

IV. Blanks

Method blanks were performed at the required frequencies. No contaminant concentrations were detected in the method or preparation blanks with the exception of two blanks for metals and dioxins and dibenzofurans. The associated sample results were qualified as non-detected (U) due to method blank contamination as applicable. The sample results that were not detected or were significantly greater than the concentrations found in the associated blanks were not qualified. The details regarding the qualification of data are provided in Enclosure I.

V. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were performed at the required frequency. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the exception of two MS/MSD pairs for TPH as extractables and metals. The associated sample results were qualified as detected estimated (J) or non-detected estimated (UJ) as applicable.

VIII. Laboratory Duplicates Sample

Laboratory duplicates (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits with the exception of one DUP for metals. The associated sample results were qualified as detected estimated (J). The details regarding the qualification of data are provided in Enclosure I.

IV. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

X. Internal Standards

Internal standards were reviewed for dioxins and dibenzofurans. Percent recoveries (%R) were within QC limits.

XI. ICP Serial Dilution

ICP serial dilution analysis was performed by the laboratory. The analysis criteria were met with the following exceptions:

Diluted Sample	Analyte	%D (Limits)	Associated Samples	Flag	A or P
FDG-SL-749-SA5C-SB-0.0-0.5 (SDG PH173)	Manganese	11 (≤10)	All soil samples in SDG PH172	J (all detects) UJ (all non-detects)	A

The associated sample results were qualified as detected estimated (J).

XII. Compound Quantitation

The laboratory reporting limits were evaluated. All laboratory reporting limits met the specified requirements.

All compound quantitations were within validation criteria with the following exceptions:

Method	Sample	Compound	Finding	Flag
1613B	FDG-SL-798-SA5B-SB-0.0-0.5	OCDD	Sample result exceeded calibration range	J (all detects)

The associated sample results were qualified as detected estimated (J).

All compounds reported below the RL as detected were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG PH172	All compounds reported as detected below the RL.	J (all detects)	A

XIII. Field Duplicate Samples

No field duplicates were identified in this SDG.

XIV. Field Blank Samples

No trip blank was collected for this SDG.

One equipment blank (from SDG PH173) was collected and analyzed for SVOCs, PCBs, metals, TPH as extractables, and dioxins and dibenzofurans. The equipment blank had detections for SVOCs, metals, and dioxins and dibenzofurans. The sample results were not detected or were significantly greater than the concentrations found in the equipment blank, therefore no data were qualified.

One field blank (from SDG PH176) was collected and analyzed for SVOCs, PCBs, metals, TPH as extractables, and dioxins and dibenzofurans. The field blank had detections for SVOCs, metals, and dioxins and dibenzofurans. The sample results were not detected or were significantly greater than the concentrations found in the field blank, therefore no data were qualified.

XV. Overall Assessment of Data

The overall assessment of QA/QC data review by automated and manual validation of this sampling event met project requirements and analytical completeness levels with the exceptions noted in the above sections. The remainder of the data are deemed useable for the intended use.

Data flags are summarized and are presented as Attachment 2.

Attachment 1

Sample Cross Reference

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
07-May-2014	FDG-SL-798-SA5B-SB-0.0-0.	7457065	N	3050B	6010C	III
07-May-2014	FDG-SL-798-SA5B-SB-0.0-0.	7457065	N	3050B	6020A	III
07-May-2014	FDG-SL-798-SA5B-SB-0.0-0.	7457065	N	3546	8015M	III
07-May-2014	FDG-SL-798-SA5B-SB-0.0-0.	7457065	N	3546	8082A	III
07-May-2014	FDG-SL-798-SA5B-SB-0.0-0.	7457065	N	3546	8270D SIM	III
07-May-2014	FDG-SL-798-SA5B-SB-0.0-0.	7457065	N	METHOD	1613B	III
07-May-2014	FDG-SL-798-SA5B-SB-0.0-0.	7457065	N	METHOD	7471B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment 2
Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: PH172 **Laboratory: LL**

EDD Filename: PH172_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method Category: METALS

Method: 6010C **Matrix: SO**

Sample ID: FDG-SL-798-SA5B-SB-0.0-0.5 *Collected:* 5/7/2014 12:29:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.10	U	0.759	MDL	4.10	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.473	J	0.0687	MDL	1.03	PQL	mg/Kg	J	Z
BORON	4.85	J	0.862	MDL	10.3	PQL	mg/Kg	U	B
CADMIUM	0.450	J	0.0779	MDL	1.03	PQL	mg/Kg	J	Z
COPPER	17.6		0.297	MDL	2.05	PQL	mg/Kg	J	Q
MANGANESE	380		0.0851	MDL	1.03	PQL	mg/Kg	J	E
MOLYBDENUM	0.330	J	0.174	MDL	2.05	PQL	mg/Kg	J	Z
PHOSPHORUS	297		2.96	MDL	10.3	PQL	mg/Kg	J	Q
POTASSIUM	2620		8.55	MDL	103	PQL	mg/Kg	J	Q
TIN	2.82	J	0.226	MDL	10.3	PQL	mg/Kg	U	B
ZINC	157		0.205	MDL	4.10	PQL	mg/Kg	J	Q, E
Zirconium	2.32	J	0.862	MDL	5.13	PQL	mg/Kg	J	Z
CHROMIUM	18.7		0.164	MDL	3.08	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6020A **Matrix: SO**

Sample ID: FDG-SL-798-SA5B-SB-0.0-0.5 *Collected:* 5/7/2014 12:29:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.215	J	0.103	MDL	0.410	PQL	mg/Kg	J	Z

Sample ID: FDG-SL-798-SA5B-SB-0.0-0.5 *Collected:* 5/7/2014 12:29:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
STRONTIUM	25.8		0.0697	MDL	0.410	PQL	mg/Kg	J	A, Q

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: FDG-SL-798-SA5B-SB-0.0-0.5 *Collected:* 5/7/2014 12:29:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8-HXCDF	3.56	JB	0.109	MDL	4.90	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH172 **Laboratory: LL**

EDD Filename: PH172_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: FDG-SL-798-SA5B-SB-0.0-0.5 *Collected:* 5/7/2014 12:29:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,6,7,8-HXCDF	3.98	JB	0.105	MDL	4.90	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	4.30	JQ	0.158	MDL	4.90	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	4.15	J	0.0873	MDL	4.90	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	2.16	JB	0.0844	MDL	4.90	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.173	J	0.0931	MDL	0.980	PQL	ng/Kg	J	Z
OCDD	9400	BE	0.120	MDL	9.80	PQL	ng/Kg	J	*XI

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: FDG-SL-798-SA5B-SB-0.0-0.5 *Collected:* 5/7/2014 12:29:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30) SG	8.5		2.0	MDL	5.1	PQL	mg/Kg	J	Q, Q
EFH (C30-C40) SG	8.9	J	4.1	MDL	10	PQL	mg/Kg	J	Z, Q, Q

Sample ID: FDG-SL-798-SA5B-SB-0.0-0.5 *Collected:* 5/7/2014 12:29:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	19		2.0	MDL	5.1	PQL	mg/Kg	J	Q, Q
EFH (C30-C40)	38		4.1	MDL	10	PQL	mg/Kg	J	Q

Method Category: SVOA

Method: 8082A **Matrix: SO**

Sample ID: FDG-SL-798-SA5B-SB-0.0-0.5 *Collected:* 5/7/2014 12:29:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	30	J	10	MDL	34	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH172 **Laboratory: LL**

EDD Filename: PH172_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method Category: **SVOA**

Method: **8270D SIM** ***Matrix:*** **SO**

Sample ID: **FDG-SL-798-SA5B-SB-0.0-0.5** ***Collected:*** **5/7/2014 12:29:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
ACENAPHTHENE	0.98	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
Butylbenzylphthalate	9.0	J	6.1	MDL	18	PQL	ug/Kg	J	Z
Di-n-octylphthalate	10	J	6.1	MDL	18	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH172 **Laboratory: LL**

EDD Filename: PH172_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Reason Code Legend

Reason Code	*Description*
*XI	Exceeded Calibration Range
A	ICP Serial Dilution
B	Method Blank Contamination
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Enclosure I

Level III ADR Outliers

(Including Manual Review Outliers)

Quality Control
Outlier Reports

PH172

Method Blank Outlier Report

Lab Reporting Batch ID: PH172 **Laboratory: LL**

EDD Filename: PH172_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK1320B371105	5/14/2014 11:05:00 AM	1,2,3,4,6,7,8-HPCDD	0.0581 ng/Kg	FDG-SL-798-SA5B-SB-0.0-0.5
		1,2,3,4,7,8,9-HPCDF	0.0343 ng/Kg	
		1,2,3,4,7,8-HXCDF	0.0389 ng/Kg	
		1,2,3,6,7,8-HXCDD	0.0350 ng/Kg	
		1,2,3,6,7,8-HXCDF	0.0250 ng/Kg	
		1,2,3,7,8,9-HXCDD	0.0308 ng/Kg	
		1,2,3,7,8,9-HXCDF	0.0281 ng/Kg	
		2,3,4,6,7,8-HXCDF	0.0270 ng/Kg	
		2,3,4,7,8-PECDF	0.0180 ng/Kg	
		OCDD	0.466 ng/Kg	
		OCDF	0.146 ng/Kg	

Method: **6010C**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P13437DB222025	5/15/2014 8:25:00 PM	BORON	1.15 mg/Kg	FDG-SL-798-SA5B-SB-0.0-0.5
		CALCIUM	13.6 mg/Kg	
		TIN	1.35 mg/Kg	
		ZINC	0.568 mg/Kg	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
FDG-SL-798-SA5B-SB-0.0-0.5(RES)	BORON	4.85 mg/Kg	4.85U mg/Kg
FDG-SL-798-SA5B-SB-0.0-0.5(RES)	TIN	2.82 mg/Kg	2.82U mg/Kg

Method: **6020A**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P13437DB220455A	5/16/2014 4:55:00 AM	STRONTIUM	0.0750 mg/Kg	FDG-SL-798-SA5B-SB-0.0-0.5

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH172 **Laboratory: LL**

EDD Filename: PrepPH172_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method: **8015M**
Matrix: **SO**

QC Sample ID (Associated Samples)	*Compound*	*MS %R*	*MSD %R*	*%R Limits*	*RPD (Limits)*	*Affected Compounds*	*Flag*
FDG-SL-798-SA5B-SB-0.0-0.5MS **FDG-SL-798-SA5B-SB-0.0-0.5MSD** (FDG-SL-798-SA5B-SB-0.0-0.5)	EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	- 250 134	130 137 185	49.00-123.00 49.00-123.00 49.00-123.00	- 33 (20.00) -	EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	J (all detects)
FDG-SL-798-SA5B-SB-0.0-0.5MS **FDG-SL-798-SA5B-SB-0.0-0.5MSD** (FDG-SL-798-SA5B-SB-0.0-0.5)	EFH (C21-C30) SG EFH (C30-C40) SG	182 -	- 149	49.00-123.00 49.00-123.00	30 (20.00) 22 (20.00)	EFH (C21-C30) EFH (C30-C40)	J(all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: PH172 **Laboratory: LL**

EDD Filename: PrepPH172_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method: 1613B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG-SL-798-SA5B-SB-0.0-0.5	1,2,3,4,7,8-HXCDF	JB	3.56	4.90	PQL	ng/Kg	J (all detects)
	1,2,3,6,7,8-HXCDF	JB	3.98	4.90	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	4.30	4.90	PQL	ng/Kg	
	1,2,3,7,8-PECDF	J	4.15	4.90	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	2.16	4.90	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.173	0.980	PQL	ng/Kg	

Method: 6010C
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG-SL-798-SA5B-SB-0.0-0.5	BERYLLIUM	J	0.473	1.03	PQL	mg/Kg	J (all detects)
	BORON	J	4.85	10.3	PQL	mg/Kg	
	CADMIUM	J	0.450	1.03	PQL	mg/Kg	
	MOLYBDENUM	J	0.330	2.05	PQL	mg/Kg	
	TIN	J	2.82	10.3	PQL	mg/Kg	
	Zirconium	J	2.32	5.13	PQL	mg/Kg	

Method: 6020A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG-SL-798-SA5B-SB-0.0-0.5	SELENIUM	J	0.215	0.410	PQL	mg/Kg	J (all detects)

Method: 8015M
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG-SL-798-SA5B-SB-0.0-0.5	EFH (C30-C40) SG	J	8.9	10	PQL	mg/Kg	J (all detects)

Method: 8082A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG-SL-798-SA5B-SB-0.0-0.5	Aroclor 5460	J	30	34	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: PH172 **Laboratory: LL**

EDD Filename: PrepPH172_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method: **8270D SIM**

Matrix: **SO**

SampleID	*Analyte*	*Lab Qual*	*Result*	*Reporting Limit*	*RL Type*	*Units*	*Flag*
FDG-SL-798-SA5B-SB-0.0-0.5	ACENAPHTHENE	J	0.98	1.7	PQL	ug/Kg	
	Butylbenzylphthalate	J	9.0	18	PQL	ug/Kg	J (all detects)
	Di-n-octylphthalate	J	10	18	PQL	ug/Kg	

LDC #: 31964A4
SDG #: PH172
Laboratory: Eurofins Lancaster Laboratories

VALIDATION COMPLETENESS WORKSHEET
ADR

Date: 6/16/14
Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: Metals (EPA SW 846 Method 6010C/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 5/7/14
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	no quals based off ICB/CCB
V.	ICP Interference Check Sample (ICS) Analysis	—	
VI.	Matrix Spike Analysis	SW	MS/D (see PH173)
VII.	Duplicate Sample Analysis	SW	DUP ↓
VIII.	Laboratory Control Samples (LCS)	N	
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	(see PH173) S6: 11% : J/UJ/A (A)
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	N	
XV	Field Blanks	SW	EB= EB-050814 (PH173) FB= FB-051314 (PH176)

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: soil

1	FDG-SL-SA5B-SB-0.0-0.5	11		21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 31964A4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: OR
2nd Reviewer: SM

METHOD: Trace Metals (EPA SW846 6010C)

Blank units: mg/L **Associated sample units:** mg/Kg Reason: F
Sampling date: 5/8/14 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: All Soil

Analyte	Blank ID	Sample Identification										
	1	Action Limit	No Qualifiers									
B	0.0084	0.0042										
Mn	0.0013	0.0007										
Zn	0.0031	0.00155										

Blank units: mg/L **Associated sample units:** mg/Kg Reason: F
Sampling date: 5/13/14 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: All Soil

Analyte	Blank ID	Sample Identification										
	FB-051314	Action Limit	No Qualifiers									
Mn	0.0012	0.0006										
Zn	0.0030	0.0015										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

Data Validation Report
Santa Susana Field Laboratory

Go Backs, Subgroup FDG Block 1

SDG: PH173

Prepared for

CDM Smith
555 17th Street, Suite 1100
Denver, CO 80202

Prepared by

Laboratory Data Consultants, Inc.
2701 Loker Ave West, Suite 220
Carlsbad, California 92010

July 10, 2014

INTRODUCTION

This Data Validation Report (DVR) presents Level IV data validation results for samples collected on May 8, 2014. Data validation was performed in accordance with the Quality Assurance Project Plan (QAPP) for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines (CLPNFGs) for Superfund Organic Methods Data Review (June 2008), Polychlorinated Dioxins/Dibenzofurans Data Review (September 2005) and for Inorganic Data Review (January 2010). Where specific guidance is not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following methods:

Semivolatiles (SVOCs) by Environmental Protection Agency (EPA) SW 846 Method 8270D utilizing Selective Ion Monitoring (SIM)
Polychlorinated Biphenyls (PCBs) by EPA SW 846 Method 8082A
Metals by EPA SW 846 Method 6010C, 6020A, 7470A and 7471B
Total Petroleum Hydrocarbons (TPH) as Gasoline by EPA SW 846 Method 8015M
TPH as Extractables with and without Silica Gel Clean Up by EPA SW 846 Method 8015M
Dioxins and Dibenzofurans by EPA Method 1613B
Perchlorate by EPA Method 6850

The sample identification and methods of analyses performed on each sample is presented in Attachment 1. Please note that the field sample IDs had to be truncated due to database limitations. Overall data qualification summary is presented in Attachment II. Level III Automated Data Review outliers are presented in Enclosure I. Level IV DVRs are presented in Enclosure II.

All sample results were subjected to Level IV data validation, which comprises an evaluation of quality control (QC) summary results for sample holding times, initial and continuing calibrations, initial and continuing calibration blanks (ICB/CCBs), surrogates, internal standards, interference check (ICSA and ICSAB) samples, matrix spike/matrix spike duplicates (MS/MSD), laboratory duplicates (DUP), laboratory control sample/laboratory control sample duplicates (LCS/LCSD), ICP serial dilutions, method blanks, trip blanks, equipment blanks, field blanks, field duplicate samples, and the raw data to confirm sample quantitation and identification.

Automated data review was performed on all QC summary results using the Automated Data Review (ADR) software program (LDC, 2013) with exception of the initial and continuing calibrations, ICB/CCBs, interference check samples, internal standards (except dioxins), and ICP serial dilutions, which were validated manually. Quality assurance (QA)/QC criteria specified in the QAPP and CLPNFGs were incorporated with the program's reference library to assess compliance with project requirements.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met QC criteria.

II. Initial Calibration

All criteria for the initial calibration of each method were met.

III. Continuing Calibration

All criteria for the initial calibration verifications and continuing calibration of each method were met with the exception of several SVOCs. The associated sample results were qualified as detected estimated (J) or non-detected estimated (UJ) as applicable. The details regarding the qualification of data are provided in Enclosure II.

IV. Blanks

Method blanks were performed at the required frequencies. No contaminant concentrations were detected in the method or preparation blanks with the exception of several blanks for SVOCs, metals, and dioxins and dibenzofurans. The associated sample results were qualified as non-detected (U) due to method blank contamination as applicable. The sample results that were not detected or were significantly greater than the concentrations found in the associated blanks were not qualified. The details regarding the qualification of data are provided in Enclosures I and II.

No contaminant concentrations were detected in the initial or continuing calibration blanks with the exception of several metals. The associated sample results were not detected or were significantly greater than the concentrations found in the associated blanks, therefore no data were qualified. The details are presented in Enclosure II.

V. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were performed at the required frequency. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the exception of one MS/MSD pair for SVOCs, metals, and dioxins and dibenzofurans. The associated sample results were qualified as detected estimated (J) or non-detected estimated (UJ) as applicable. The details regarding the qualification of data are provided in Enclosures I and II.

VIII. Laboratory Duplicates Sample

Laboratory duplicates (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits with the exception of one DUP for manganese. The associated sample results were qualified as detected estimated (J). The details regarding the qualification of data are provided in Enclosures I and II.

IX. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the exception of several LCS/LCSD pairs for SVOCs, metals, and PCBs. The associated sample results were qualified as detected estimated (J) or non-detected estimates (UJ) as applicable. The details regarding the qualification of data are provided in Enclosures I and II.

X. Internal Standards

All internal standard areas and retention times or percent recoveries were within QC limits.

XI. ICP Serial Dilution

ICP serial dilution analysis was performed by the laboratory. The analysis criteria were met with the exception of strontium. The associated sample results were qualified as detected estimated (J). The details regarding the qualification of data are provided in Enclosure II.

XII. Compound Quantitation

The laboratory reporting limits were evaluated. All laboratory reporting limits met the specified requirements.

All compound quantitations were within validation criteria with the exception of two dioxins which exceeded their calibration ranges in two samples. The associated sample results were qualified as detected estimated (J). The details regarding the qualification of data are provided in Enclosure II.

The RPD between columns for Aroclor-1254 for one sample was not within QC limits. The sample results were qualified as detected estimated (J). The details regarding the qualification of data are provided in Enclosure II.

All compounds reported below the RL as detected were qualified as follows:

Sample	Finding	Flag
All samples in SDG PH173	All compounds reported as detected below the RL.	J (all detects)

XIII. Field Duplicate Samples

One field duplicate pair was collected and analyzed for SVOCs, PCBs, metals, dioxins and dibenzofurans, and perchlorate. All RPDs were within QC limits with the exception of SVOCs,

metals, and dioxins and dibenzofurans. The associated sample results were qualified as detected estimated (J) or non-detected estimated (UJ) as applicable. The field duplicate result comparisons are provided in Enclosures I and II.

XIV. Field Blank Samples

No trip blank was collected for this SDG.

One equipment blank was collected and analyzed for SVOCs, PCBs, metals, TPH as gasoline, TPH as extractables, dioxins and dibenzofurans, and perchlorate. The equipment blank had detections for SVOCs, metals and dioxins and dibenzofurans. The associated sample results were qualified as non-detected (U) due to equipment blank contamination as applicable. The sample results that were not detected or were significantly greater than the concentrations found in the equipment blanks were not qualified. The equipment blank outlier reports are presented in Enclosures I and II.

One field blank (from SDG PH176) was collected and analyzed for SVOCs, PCBs, metals, dioxins and dibenzofurans and perchlorate. The field blank had detections for SVOCs, metals and dioxins and dibenzofurans. The associated sample results were not detected or were significantly greater than the concentrations found in the equipment blanks, therefore no data were qualified.

XV. Overall Assessment of Data

No data associated with this sampling event were rejected. The overall assessment of QA/QC data review by automated and manual validation of this sampling event met project requirements and analytical completeness levels with the exceptions noted in the above sections. All data are deemed useable for the intended use.

Data flags are summarized and are presented as Attachment 2.

Attachment 1

Sample Cross Reference

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
08-May-2014	SL-511-SA5C-SB-0.0-0.5	7457969	N	3050B	6010C	IV
08-May-2014	SL-511-SA5C-SB-0.0-0.5	7457969	N	3050B	6020A	IV
08-May-2014	SL-511-SA5C-SB-0.0-0.5	7457969	N	3546	8082A	IV
08-May-2014	SL-511-SA5C-SB-0.0-0.5	7457969	N	3546	8270D SIM	IV
08-May-2014	SL-511-SA5C-SB-0.0-0.5	7457969	N	METHOD	1613B	IV
08-May-2014	SL-511-SA5C-SB-0.0-0.5	7457969	N	METHOD	6850	IV
08-May-2014	SL-511-SA5C-SB-0.0-0.5	7457969	N	METHOD	7471B	IV
08-May-2014	SL-511-SA5C-SB-2.0-3.0	7457970	N	3050B	6010C	IV
08-May-2014	SL-511-SA5C-SB-2.0-3.0	7457970	N	3050B	6020A	IV
08-May-2014	SL-511-SA5C-SB-2.0-3.0	7457970	N	3546	8082A	IV
08-May-2014	SL-511-SA5C-SB-2.0-3.0	7457970	N	3546	8270D SIM	IV
08-May-2014	SL-511-SA5C-SB-2.0-3.0	7457970	N	METHOD	1613B	IV
08-May-2014	SL-511-SA5C-SB-2.0-3.0	7457970	N	METHOD	6850	IV
08-May-2014	SL-511-SA5C-SB-2.0-3.0	7457970	N	METHOD	7471B	IV
08-May-2014	SL-749-SA5C-SB-0.0-0.5	7457971	N	3050B	6010C	IV
08-May-2014	SL-749-SA5C-SB-0.0-0.5	7457971	N	3050B	6020A	IV
08-May-2014	SL-749-SA5C-SB-0.0-0.5	7457971	N	3546	8082A	IV
08-May-2014	SL-749-SA5C-SB-0.0-0.5	7457971	N	3546	8270D SIM	IV
08-May-2014	SL-749-SA5C-SB-0.0-0.5	7457971	N	METHOD	1613B	IV
08-May-2014	SL-749-SA5C-SB-0.0-0.5	7457971	N	METHOD	6850	IV
08-May-2014	SL-749-SA5C-SB-0.0-0.5	7457971	N	METHOD	7471B	IV
08-May-2014	SL-749-SA5C-SB-0.0-0.5MS	7457972	MS	3050B	6010C	IV
08-May-2014	SL-749-SA5C-SB-0.0-0.5MS	7457972	MS	3050B	6020A	IV
08-May-2014	SL-749-SA5C-SB-0.0-0.5MS	7457972	MS	3546	8082A	IV
08-May-2014	SL-749-SA5C-SB-0.0-0.5MS	7457972	MS	3546	8270D SIM	IV
08-May-2014	SL-749-SA5C-SB-0.0-0.5MS	7457972	MS	METHOD	1613B	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
08-May-2014	SL-749-SA5C-SB-0.0-0.5MS	7457972	MS	METHOD	6850	IV
08-May-2014	SL-749-SA5C-SB-0.0-0.5MS	7457972	MS	METHOD	7471B	IV
08-May-2014	SL-749-SA5C-SB-0.0-0.5MSD	7457973	MSD	3050B	6010C	IV
08-May-2014	SL-749-SA5C-SB-0.0-0.5MSD	7457973	MSD	3050B	6020A	IV
08-May-2014	SL-749-SA5C-SB-0.0-0.5MSD	7457973	MSD	3546	8082A	IV
08-May-2014	SL-749-SA5C-SB-0.0-0.5MSD	7457973	MSD	3546	8270D SIM	IV
08-May-2014	SL-749-SA5C-SB-0.0-0.5MSD	7457973	MSD	METHOD	1613B	IV
08-May-2014	SL-749-SA5C-SB-0.0-0.5MSD	7457973	MSD	METHOD	6850	IV
08-May-2014	SL-749-SA5C-SB-0.0-0.5MSD	7457973	MSD	METHOD	7471B	IV
08-May-2014	SL-749-SA5C-SB-0.0-0.5DUP	7457974	DUP	3050B	6010C	IV
08-May-2014	SL-749-SA5C-SB-0.0-0.5DUP	7457974	DUP	3050B	6020A	IV
08-May-2014	SL-749-SA5C-SB-0.0-0.5DUP	7457974	DUP	METHOD	7471B	IV
08-May-2014	SL-1049-SA5C-SB-0.0-0.5	7457975	FD	3050B	6010C	IV
08-May-2014	SL-1049-SA5C-SB-0.0-0.5	7457975	FD	3050B	6020A	IV
08-May-2014	SL-1049-SA5C-SB-0.0-0.5	7457975	FD	3546	8082A	IV
08-May-2014	SL-1049-SA5C-SB-0.0-0.5	7457975	FD	3546	8270D SIM	IV
08-May-2014	SL-1049-SA5C-SB-0.0-0.5	7457975	FD	METHOD	1613B	IV
08-May-2014	SL-1049-SA5C-SB-0.0-0.5	7457975	FD	METHOD	6850	IV
08-May-2014	SL-1049-SA5C-SB-0.0-0.5	7457975	FD	METHOD	7471B	IV
08-May-2014	EB-050814	7457968	EB	3005A	6010C	IV
08-May-2014	EB-050814	7457968	EB	3510C	8015M	IV
08-May-2014	EB-050814	7457968	EB	3510C	8082A	IV
08-May-2014	EB-050814	7457968	EB	3510C	8270D SIM	IV
08-May-2014	EB-050814	7457968	EB	5030B	8015M	IV
08-May-2014	EB-050814	7457968	EB	Gen Prep	6850	IV
08-May-2014	EB-050814	7457968	EB	M3010A	6020A	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
08-May-2014	EB-050814	7457968	EB	METHOD	1613B	IV
08-May-2014	EB-050814	7457968	EB	METHOD	7470A	IV
08-May-2014	EB-050814MSD	P457968M241844A	MSD	Gen Prep	6850	IV
08-May-2014	EB-050814MS	P457968R241831A	MS	Gen Prep	6850	IV

III = EPA Level 3 Data Review
IV = EPA Level 4 Data Validation
N = Normal Sample
FD = Field Duplicate
TB = Trip Blank
FB = Field Blank
MS = Matrix Spike
MSD = Matrix Spike Duplicate

Attachment 2
Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: PH173 **Laboratory: LL**

EDD Filename: PrepPH173_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method Category: METALS

Method: 6010C **Matrix: AQ**

Sample ID: **EB-050814** *Collected:* **5/8/2014 3:00:00 PM** *Analysis Type:* **REA** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	0.0084	J	0.0084	MDL	0.100	PQL	mg/L	J	Z
ZINC	0.0031	J	0.0020	MDL	0.0400	PQL	mg/L	U	B
MANGANESE	0.0013	J	0.00083	MDL	0.0100	PQL	mg/L	U	B

Method Category: METALS

Method: 6010C **Matrix: SO**

Sample ID: **FDG-SL-1049-SA5C-SB-0.0-0.5** *Collected:* **5/8/2014 2:00:00 PM** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.15	U	0.768	MDL	4.15	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.562	J	0.0695	MDL	1.04	PQL	mg/Kg	J	Z
BORON	1.59	J	0.871	MDL	10.4	PQL	mg/Kg	U	B, F
CALCIUM	5940		3.47	MDL	20.7	PQL	mg/Kg	J	FD
CHROMIUM	17.1		0.166	MDL	3.11	PQL	mg/Kg	J	Q
COPPER	10.6		0.301	MDL	2.07	PQL	mg/Kg	J	Q
MANGANESE	256		0.0861	MDL	1.04	PQL	mg/Kg	J	E
MOLYBDENUM	2.07	U	0.176	MDL	2.07	PQL	mg/Kg	UJ	FD
PHOSPHORUS	259		3.00	MDL	10.4	PQL	mg/Kg	J	Q
POTASSIUM	2160		8.65	MDL	104	PQL	mg/Kg	J	Q
SODIUM	76.4	J	17.3	MDL	104	PQL	mg/Kg	J	Z
TIN	2.73	J	0.228	MDL	10.4	PQL	mg/Kg	U	B
ZINC	49.7		0.207	MDL	4.15	PQL	mg/Kg	J	Q, E
Zirconium	3.13	J	0.871	MDL	5.19	PQL	mg/Kg	J	Z

Sample ID: **FDG-SL-511-SA5C-SB-0.0-0.5** *Collected:* **5/8/2014 9:40:00 AM** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.23	U	0.783	MDL	4.23	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.814	J	0.0709	MDL	1.06	PQL	mg/Kg	J	Z
BORON	3.72	J	0.888	MDL	10.6	PQL	mg/Kg	U	B, F
CADMIUM	0.403	J	0.0804	MDL	1.06	PQL	mg/Kg	J	Z
CHROMIUM	21.7		0.169	MDL	3.17	PQL	mg/Kg	J	Q
COPPER	25.5		0.307	MDL	2.12	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH173 **Laboratory: LL**

EDD Filename: PrepPH173_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method Category: METALS

Method: 6010C **Matrix: SO**

Sample ID: **FDG-SL-511-SA5C-SB-0.0-0.5** *Collected:* **5/8/2014 9:40:00 AM** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	387		0.0878	MDL	1.06	PQL	mg/Kg	J	E
MOLYBDENUM	0.399	J	0.180	MDL	2.12	PQL	mg/Kg	J	Z
PHOSPHORUS	373		3.06	MDL	10.6	PQL	mg/Kg	J	Q
POTASSIUM	2630		8.82	MDL	106	PQL	mg/Kg	J	Q
SODIUM	95.9	J	17.7	MDL	106	PQL	mg/Kg	J	Z
TIN	3.04	J	0.233	MDL	10.6	PQL	mg/Kg	U	B
ZINC	178		0.212	MDL	4.23	PQL	mg/Kg	J	Q, E
Zirconium	3.76	J	0.888	MDL	5.29	PQL	mg/Kg	J	Z

Sample ID: **FDG-SL-511-SA5C-SB-2.0-3.0** *Collected:* **5/8/2014 11:05:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.08	U	0.755	MDL	4.08	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.400	J	0.0684	MDL	1.02	PQL	mg/Kg	J	Z
BORON	1.16	J	0.857	MDL	10.2	PQL	mg/Kg	U	B, F
CADMIUM	0.247	J	0.0775	MDL	1.02	PQL	mg/Kg	J	Z
CHROMIUM	11.9		0.163	MDL	3.06	PQL	mg/Kg	J	Q
COPPER	10.2		0.296	MDL	2.04	PQL	mg/Kg	J	Q
MANGANESE	377		0.0847	MDL	1.02	PQL	mg/Kg	J	E
MOLYBDENUM	0.209	J	0.173	MDL	2.04	PQL	mg/Kg	J	Z
PHOSPHORUS	210		2.95	MDL	10.2	PQL	mg/Kg	J	Q
POTASSIUM	1290		8.51	MDL	102	PQL	mg/Kg	J	Q
SODIUM	64.9	J	17.0	MDL	102	PQL	mg/Kg	J	Z
TIN	2.38	J	0.224	MDL	10.2	PQL	mg/Kg	U	B
ZINC	90.6		0.204	MDL	4.08	PQL	mg/Kg	J	Q, E
Zirconium	2.15	J	0.857	MDL	5.10	PQL	mg/Kg	J	Z

Sample ID: **FDG-SL-749-SA5C-SB-0.0-0.5** *Collected:* **5/8/2014 1:30:00 PM** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.05	U	0.749	MDL	4.05	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.572	J	0.0678	MDL	1.01	PQL	mg/Kg	J	Z
BORON	1.77	J	0.850	MDL	10.1	PQL	mg/Kg	U	B, F
CALCIUM	3330		3.38	MDL	20.2	PQL	mg/Kg	J	FD
CHROMIUM	16.7		0.162	MDL	3.04	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH173 **Laboratory: LL**

EDD Filename: PrepPH173_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method Category: METALS

Method: 6010C **Matrix: SO**

Sample ID: FDG-SL-749-SA5C-SB-0.0-0.5 *Collected:* 5/8/2014 1:30:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	11.8		0.294	MDL	2.02	PQL	mg/Kg	J	Q
MANGANESE	304		0.0840	MDL	1.01	PQL	mg/Kg	J	E
MOLYBDENUM	0.442	J	0.172	MDL	2.02	PQL	mg/Kg	J	Z, FD
PHOSPHORUS	274		2.93	MDL	10.1	PQL	mg/Kg	J	Q
POTASSIUM	2330		8.44	MDL	101	PQL	mg/Kg	J	Q
SODIUM	88.5	J	16.9	MDL	101	PQL	mg/Kg	J	Z
TIN	2.99	J	0.223	MDL	10.1	PQL	mg/Kg	U	B
ZINC	75.8		0.202	MDL	4.05	PQL	mg/Kg	J	Q, E
Zirconium	3.11	J	0.850	MDL	5.06	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020A **Matrix: SO**

Sample ID: FDG-SL-1049-SA5C-SB-0.0-0.5 *Collected:* 5/8/2014 2:00:00 PM *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.160	J	0.104	MDL	0.415	PQL	mg/Kg	J	Z

Sample ID: FDG-SL-1049-SA5C-SB-0.0-0.5 *Collected:* 5/8/2014 2:00:00 PM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0444	J	0.0270	MDL	0.207	PQL	mg/Kg	J	Z
STRONTIUM	27.3		0.0705	MDL	0.415	PQL	mg/Kg	J	Q, A

Sample ID: FDG-SL-511-SA5C-SB-0.0-0.5 *Collected:* 5/8/2014 9:40:00 AM *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.270	J	0.106	MDL	0.423	PQL	mg/Kg	J	Z

Sample ID: FDG-SL-511-SA5C-SB-0.0-0.5 *Collected:* 5/8/2014 9:40:00 AM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.137	J	0.0275	MDL	0.212	PQL	mg/Kg	J	Z
STRONTIUM	58.4		0.0719	MDL	0.423	PQL	mg/Kg	J	Q, A

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH173 **Laboratory: LL**

EDD Filename: PrepPH173_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method Category: METALS

Method: 6020A **Matrix: SO**

Sample ID: FDG-SL-511-SA5C-SB-2.0-3.0 *Collected:* 5/8/2014 11:05:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.127	J	0.102	MDL	0.408	PQL	mg/Kg	J	Z

Sample ID: FDG-SL-511-SA5C-SB-2.0-3.0 *Collected:* 5/8/2014 11:05:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0375	J	0.0265	MDL	0.204	PQL	mg/Kg	J	Z
STRONTIUM	26.7		0.0694	MDL	0.408	PQL	mg/Kg	J	Q, A
THALLIUM	0.126	J	0.0306	MDL	0.204	PQL	mg/Kg	J	Z

Sample ID: FDG-SL-749-SA5C-SB-0.0-0.5 *Collected:* 5/8/2014 1:30:00 PM *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.152	J	0.101	MDL	0.405	PQL	mg/Kg	J	Z

Sample ID: FDG-SL-749-SA5C-SB-0.0-0.5 *Collected:* 5/8/2014 1:30:00 PM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0300	J	0.0263	MDL	0.202	PQL	mg/Kg	J	Z
STRONTIUM	28.7		0.0688	MDL	0.405	PQL	mg/Kg	J	Q, A

Method Category: METALS

Method: 7471B **Matrix: SO**

Sample ID: FDG-SL-1049-SA5C-SB-0.0-0.5 *Collected:* 5/8/2014 2:00:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0170	U	0.0102	MDL	0.0170	PQL	mg/Kg	UJ	FD

Sample ID: FDG-SL-749-SA5C-SB-0.0-0.5 *Collected:* 5/8/2014 1:30:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0139	J	0.0101	MDL	0.0168	PQL	mg/Kg	J	Z, FD

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH173 **Laboratory: LL**

EDD Filename: PrepPH173_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method Category: SVOA

Method: 1613B **Matrix: AQ**

Sample ID: **EB-050814** *Collected:* **5/8/2014 3:00:00 PM** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.216	JBQ	0.0954	MDL	9.70	PQL	pg/L	U	B
1,2,3,4,6,7,8-HPCDF	0.224	JB	0.0496	MDL	9.70	PQL	pg/L	U	B
1,2,3,4,7,8,9-HPCDF	0.205	JB	0.0554	MDL	9.70	PQL	pg/L	U	B
1,2,3,4,7,8-HxCDD	0.146	JQ	0.142	MDL	9.70	PQL	pg/L	J	Z
1,2,3,4,7,8-HXCDF	0.131	JBQ	0.0872	MDL	9.70	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDF	0.146	JBQ	0.0839	MDL	9.70	PQL	pg/L	U	B
1,2,3,7,8-PECDF	0.312	JBQ	0.0880	MDL	9.70	PQL	pg/L	U	B
2,3,4,6,7,8-HXCDF	0.114	JQ	0.0799	MDL	9.70	PQL	pg/L	J	Z
OCDD	1.06	JBQ	0.132	MDL	19.4	PQL	pg/L	U	B
OCDF	0.824	JB	0.134	MDL	19.4	PQL	pg/L	U	B

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: **FDG-SL-1049-SA5C-SB-0.0-0.5** *Collected:* **5/8/2014 2:00:00 PM** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	24.2	B	0.0709	MDL	5.22	PQL	ng/Kg	J	FD
1,2,3,4,6,7,8-HPCDF	2.75	JB	0.0271	MDL	5.22	PQL	ng/Kg	J	Z, FD
1,2,3,4,7,8,9-HPCDF	0.483	JB	0.0371	MDL	5.22	PQL	ng/Kg	J	Z, FD
1,2,3,4,7,8-HxCDD	0.202	J	0.0686	MDL	5.22	PQL	ng/Kg	J	Z, FD
1,2,3,4,7,8-HXCDF	0.133	J	0.0515	MDL	5.22	PQL	ng/Kg	J	Z, FD
1,2,3,6,7,8-HXCDD	0.758	JB	0.0697	MDL	5.22	PQL	ng/Kg	J	Z, FD
1,2,3,6,7,8-HXCDF	0.272	JQ	0.0491	MDL	5.22	PQL	ng/Kg	J	Z, FD
1,2,3,7,8,9-HXCDD	0.567	JB	0.0704	MDL	5.22	PQL	ng/Kg	J	Z, FD
1,2,3,7,8,9-HXCDF	0.138	JBQ	0.0572	MDL	5.22	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8-PECDD	0.131	JB	0.0801	MDL	5.22	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8-PECDF	0.0849	JBQ	0.0307	MDL	5.22	PQL	ng/Kg	UJ	B, FD
2,3,4,6,7,8-HXCDF	0.363	JQ	0.0495	MDL	5.22	PQL	ng/Kg	J	Z, FD
2,3,4,7,8-PECDF	0.241	JB	0.0285	MDL	5.22	PQL	ng/Kg	J	Z, FD
2,3,7,8-TCDD	1.04	U	0.0604	MDL	1.04	PQL	ng/Kg	UJ	FD
2,3,7,8-TCDF	1.04	U	0.0394	MDL	1.04	PQL	ng/Kg	UJ	FD
OCDD	161	B	0.0632	MDL	10.4	PQL	ng/Kg	J	FD
OCDF	6.53	JB	0.0471	MDL	10.4	PQL	ng/Kg	J	Z, FD

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH173 **Laboratory: LL**

EDD Filename: PrepPH173_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: **FDG-SL-511-SA5C-SB-0.0-0.5** *Collected:* **5/8/2014 9:40:00 AM** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2670	BE	0.283	MDL	5.30	PQL	ng/Kg	J	*XI
1,2,3,7,8-PECDF	1.75	JB	0.0897	MDL	5.30	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	3.07	JB	0.0814	MDL	5.30	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.630	J	0.146	MDL	1.06	PQL	ng/Kg	J	Z
OCDD	26100	BE	0.171	MDL	10.6	PQL	ng/Kg	J	*XI

Sample ID: **FDG-SL-511-SA5C-SB-2.0-3.0** *Collected:* **5/8/2014 11:05:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8-HXCDF	3.42	J	0.103	MDL	5.04	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	4.44	J	0.0971	MDL	5.04	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	4.52	JB	0.236	MDL	5.04	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.761	JB	0.0713	MDL	5.04	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	1.50	JB	0.0672	MDL	5.04	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.353	JBQ	0.127	MDL	1.01	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.264	J	0.101	MDL	1.01	PQL	ng/Kg	J	Z
OCDD	10200	BE	0.138	MDL	10.1	PQL	ng/Kg	J	*XI

Sample ID: **FDG-SL-749-SA5C-SB-0.0-0.5** *Collected:* **5/8/2014 1:30:00 PM** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	572	B	0.137	MDL	5.20	PQL	ng/Kg	J	FD
1,2,3,4,6,7,8-HPCDF	29.6	B	0.0637	MDL	5.20	PQL	ng/Kg	J	Q, Q, FD
1,2,3,4,7,8,9-HPCDF	2.47	JB	0.0724	MDL	5.20	PQL	ng/Kg	J	Z, FD
1,2,3,4,7,8-HxCDD	3.04	J	0.106	MDL	5.20	PQL	ng/Kg	J	Z, FD
1,2,3,4,7,8-HXCDF	0.945	J	0.0755	MDL	5.20	PQL	ng/Kg	J	Z, FD
1,2,3,6,7,8-HXCDD	22.1	B	0.104	MDL	5.20	PQL	ng/Kg	J	FD
1,2,3,6,7,8-HXCDF	1.11	JQ	0.0702	MDL	5.20	PQL	ng/Kg	J	Z, FD
1,2,3,7,8,9-HXCDD	8.42	B	0.102	MDL	5.20	PQL	ng/Kg	J	FD
1,2,3,7,8,9-HXCDF	0.322	JBQ	0.0749	MDL	5.20	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8-PECDD	1.87	JB	0.162	MDL	5.20	PQL	ng/Kg	J	Z, FD
1,2,3,7,8-PECDF	0.388	JBQ	0.0468	MDL	5.20	PQL	ng/Kg	J	Z, FD
2,3,4,6,7,8-HXCDF	1.84	J	0.0698	MDL	5.20	PQL	ng/Kg	J	Z, FD
2,3,4,7,8-PECDF	0.460	JBQ	0.0422	MDL	5.20	PQL	ng/Kg	J	Z, FD
2,3,7,8-TCDD	0.176	JB	0.104	MDL	1.04	PQL	ng/Kg	UJ	B, FD

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH173 **Laboratory: LL**

EDD Filename: PrepPH173_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: FDG-SL-749-SA5C-SB-0.0-0.5 *Collected:* 5/8/2014 1:30:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,7,8-TCDF	0.150	JQ	0.0612	MDL	1.04	PQL	ng/Kg	J	Z, FD
OCDD	3460	B	0.0854	MDL	10.4	PQL	ng/Kg	J	FD
OCDF	66.6	B	0.0480	MDL	10.4	PQL	ng/Kg	J	Q, Q, FD

Method Category: SVOA

Method: 8082A **Matrix: AQ**

Sample ID: EB-050814 *Collected:* 5/8/2014 3:00:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1242	0.41	U	0.081	MDL	0.41	PQL	ug/L	UJ	L, E
AROCLOR 1248	0.41	U	0.081	MDL	0.41	PQL	ug/L	UJ	L, E
AROCLOR 1254	0.41	U	0.081	MDL	0.41	PQL	ug/L	UJ	L, E
AROCLOR 1260	0.41	U	0.12	MDL	0.41	PQL	ug/L	UJ	L, E

Method Category: SVOA

Method: 8082A **Matrix: SO**

Sample ID: FDG-SL-511-SA5C-SB-0.0-0.5 *Collected:* 5/8/2014 9:40:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	11	J	4.7	MDL	18	PQL	ug/Kg	J	Z, *XIII
AROCLOR 1260	11	J	4.2	MDL	18	PQL	ug/Kg	J	Z
Aroclor 5460	19	J	11	MDL	36	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270D SIM **Matrix: AQ**

Sample ID: EB-050814 *Collected:* 5/8/2014 3:00:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHENE	0.016	J	0.010	MDL	0.051	PQL	ug/L	J	Z
ACENAPHTHYLENE	0.021	J	0.010	MDL	0.051	PQL	ug/L	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	1.0	U	0.051	MDL	1.0	PQL	ug/L	UJ	L, E

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH173 **Laboratory: LL**

EDD Filename: PrepPH173_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method Category: SVOA

Method: 8270D SIM **Matrix: AQ**

Sample ID: **EB-050814** *Collected:* **5/8/2014 3:00:00 PM** *Analysis Type:* **RES-BASE/NEUTRAL** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Diethylphthalate	0.48	J	0.051	MDL	1.0	PQL	ug/L	J	Z
Di-n-butylphthalate	0.16	J	0.051	MDL	1.0	PQL	ug/L	U	B

Method Category: SVOA

Method: 8270D SIM **Matrix: SO**

Sample ID: **FDG-SL-1049-SA5C-SB-0.0-0.5** *Collected:* **5/8/2014 2:00:00 PM** *Analysis Type:* **RES-BASE/NEUTRAL** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	1.1	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z, FD
2-METHYLNAPHTHALENE	1.7	U	0.70	MDL	1.7	PQL	ug/Kg	UJ	FD
ANTHRACENE	1.1	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z, FD
BENZO(A)ANTHRACENE	0.95	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.7	U	0.70	MDL	1.7	PQL	ug/Kg	UJ	FD
BENZO(B)FLUORANTHENE	1.7	U	0.70	MDL	1.7	PQL	ug/Kg	UJ	FD, C
BIS(2-ETHYLHEXYL)PHTHALATE	9.8	J	6.3	MDL	19	PQL	ug/Kg	J	Z, C
Butylbenzylphthalate	7.1	J	6.3	MDL	19	PQL	ug/Kg	J	Z
CHRYSENE	0.46	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z, FD
Di-n-octylphthalate	19	U	6.3	MDL	19	PQL	ug/Kg	UJ	FD, C
FLUORANTHENE	0.80	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z, FD
NAPHTHALENE	1.7	U	0.70	MDL	1.7	PQL	ug/Kg	UJ	FD
PYRENE	1.2	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z, FD

Sample ID: **FDG-SL-511-SA5C-SB-0.0-0.5** *Collected:* **5/8/2014 9:40:00 AM** *Analysis Type:* **RES-BASE/NEUTRAL** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	14		0.72	MDL	1.8	PQL	ug/Kg	J	C
BENZO(E)PYRENE	13	J	3.6	MDL	18	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	25		6.5	MDL	19	PQL	ug/Kg	J	C
Butylbenzylphthalate	11	J	6.5	MDL	19	PQL	ug/Kg	J	Z
Di-n-octylphthalate	19	U	6.5	MDL	19	PQL	ug/Kg	UJ	C

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH173 **Laboratory: LL**

EDD Filename: PrepPH173_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method Category: **SVOA**

Method: **8270D SIM** ***Matrix:*** **SO**

Sample ID: **FDG-SL-511-SA5C-SB-2.0-3.0** ***Collected:*** **5/8/2014 11:05:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
ANTHRACENE	1.4	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	5.8		0.69	MDL	1.7	PQL	ug/Kg	J	C
BENZO(E)PYRENE	6.7	J	3.5	MDL	18	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	12	J	6.2	MDL	19	PQL	ug/Kg	J	Z, C
DIBENZO(A,H)ANTHRACENE	1.0	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
Di-n-octylphthalate	19	U	6.2	MDL	19	PQL	ug/Kg	UJ	C
INDENO(1,2,3-CD)PYRENE	0.88	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.69	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **FDG-SL-749-SA5C-SB-0.0-0.5** ***Collected:*** **5/8/2014 1:30:00 PM** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
1-METHYLNAPHTHALENE	4.1		0.70	MDL	1.7	PQL	ug/Kg	J	Q, Q, FD
2-METHYLNAPHTHALENE	3.4		0.70	MDL	1.7	PQL	ug/Kg	J	Q, Q, FD
ANTHRACENE	2.0		0.35	MDL	1.7	PQL	ug/Kg	J	Q, FD
BENZO(A)ANTHRACENE	1.2	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	0.89	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z, FD
BENZO(B)FLUORANTHENE	1.0	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z, FD, C
BIS(2-ETHYLHEXYL)PHTHALATE	12	J	6.3	MDL	19	PQL	ug/Kg	J	Z, Q, C, Q
Butylbenzylphthalate	6.8	J	6.3	MDL	19	PQL	ug/Kg	J	Z
CHRYSENE	1.3	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z, FD
Di-n-octylphthalate	9.3	J	6.3	MDL	19	PQL	ug/Kg	J	Z, FD, C
FLUORANTHENE	1.9		0.70	MDL	1.7	PQL	ug/Kg	J	Q, FD
NAPHTHALENE	1.1	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z, Q, FD
PHENANTHRENE	8.6		0.70	MDL	1.7	PQL	ug/Kg	J	Q, Q
PYRENE	2.1		0.70	MDL	1.7	PQL	ug/Kg	J	Q, Q, FD

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Data Qualifier Summary

Lab Reporting Batch ID: PH173 **Laboratory: LL**

EDD Filename: PrepPH173_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Reason Code Legend

Reason Code	*Description*
*XI, *XIII	Exceeded Calibration Range, RPD between Columns
A	ICP Serial Dilution
B	Method Blank Contamination
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Estimation
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination
FD	Field Duplicate Precision
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Upper Estimation
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Lower Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Enclosure I

Level III ADR Outliers

(Including Manual Review Outliers)

Quality Control Outlier Reports

PH173

Method Blank Outlier Report

Lab Reporting Batch ID: PH173 **Laboratory: LL**

EDD Filename: PH173_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method: **1613B**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK1330B370458	5/15/2014 4:58:00 AM	1,2,3,4,6,7,8-HPCDD 1,2,3,4,6,7,8-HPCDF 1,2,3,4,7,8,9-HPCDF 1,2,3,4,7,8-HXCDF 1,2,3,6,7,8-HXCDF 1,2,3,7,8,9-HXCDF 1,2,3,7,8-PECDF 2,3,4,7,8-PECDF OCDD OCDF	0.535 pg/L 0.256 pg/L 0.404 pg/L 0.329 pg/L 0.278 pg/L 0.306 pg/L 0.438 pg/L 0.173 pg/L 1.07 pg/L 1.22 pg/L	EB-050814

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-050814(RES)	1,2,3,4,6,7,8-HPCDD	0.216 pg/L	0.216U pg/L
EB-050814(RES)	1,2,3,4,6,7,8-HPCDF	0.224 pg/L	0.224U pg/L
EB-050814(RES)	1,2,3,4,7,8,9-HPCDF	0.205 pg/L	0.205U pg/L
EB-050814(RES)	1,2,3,4,7,8-HXCDF	0.131 pg/L	0.131U pg/L
EB-050814(RES)	1,2,3,6,7,8-HXCDF	0.146 pg/L	0.146U pg/L
EB-050814(RES)	1,2,3,7,8-PECDF	0.312 pg/L	0.312U pg/L
EB-050814(RES)	OCDD	1.06 pg/L	1.06U pg/L
EB-050814(RES)	OCDF	0.824 pg/L	0.824U pg/L

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK1340B372031	5/15/2014 8:31:00 PM	1,2,3,4,6,7,8-HPCDD 1,2,3,4,6,7,8-HPCDF 1,2,3,4,7,8,9-HPCDF 1,2,3,6,7,8-HXCDD 1,2,3,7,8,9-HXCDD 1,2,3,7,8,9-HXCDF 1,2,3,7,8-PECDD 1,2,3,7,8-PECDF 2,3,4,7,8-PECDF 2,3,7,8-TCDD OCDD OCDF	0.0539 ng/Kg 0.0286 ng/Kg 0.0418 ng/Kg 0.0254 ng/Kg 0.0340 ng/Kg 0.0835 ng/Kg 0.0398 ng/Kg 0.0374 ng/Kg 0.0307 ng/Kg 0.0966 ng/Kg 0.208 ng/Kg 0.129 ng/Kg	FDG-SL-1049-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-2.0-3.0 FDG-SL-749-SA5C-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
FDG-SL-1049-SA5C-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.138 ng/Kg	0.138U ng/Kg
FDG-SL-1049-SA5C-SB-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.131 ng/Kg	0.131U ng/Kg
FDG-SL-1049-SA5C-SB-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.0849 ng/Kg	0.0849U ng/Kg
FDG-SL-511-SA5C-SB-2.0-3.0(RES)	2,3,7,8-TCDD	0.353 ng/Kg	0.353U ng/Kg
FDG-SL-749-SA5C-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.322 ng/Kg	0.322U ng/Kg
FDG-SL-749-SA5C-SB-0.0-0.5(RES)	2,3,7,8-TCDD	0.176 ng/Kg	0.176U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: PH173 **Laboratory: LL**

EDD Filename: PH173_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method: **6010C**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P13535AB221726	5/16/2014 5:26:00 PM	MANGANESE ZINC	0.0016 mg/L 0.0038 mg/L	EB-050814

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-050814(REA)	MANGANESE	0.0013 mg/L	0.0013U mg/L
EB-050814(REA)	ZINC	0.0031 mg/L	0.0031U mg/L

Method: **6010C**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P13437DB222025	5/15/2014 8:25:00 PM	BORON CALCIUM TIN ZINC	1.15 mg/Kg 13.6 mg/Kg 1.35 mg/Kg 0.568 mg/Kg	FDG-SL-1049-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-2.0-3.0 FDG-SL-749-SA5C-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
FDG-SL-1049-SA5C-SB-0.0-0.5(RES)	BORON	1.59 mg/Kg	1.59U mg/Kg
FDG-SL-1049-SA5C-SB-0.0-0.5(RES)	TIN	2.73 mg/Kg	2.73U mg/Kg
FDG-SL-511-SA5C-SB-0.0-0.5(RES)	BORON	3.72 mg/Kg	3.72U mg/Kg
FDG-SL-511-SA5C-SB-0.0-0.5(RES)	TIN	3.04 mg/Kg	3.04U mg/Kg
FDG-SL-511-SA5C-SB-2.0-3.0(RES)	BORON	1.16 mg/Kg	1.16U mg/Kg
FDG-SL-511-SA5C-SB-2.0-3.0(RES)	TIN	2.38 mg/Kg	2.38U mg/Kg
FDG-SL-749-SA5C-SB-0.0-0.5(RES)	BORON	1.77 mg/Kg	1.77U mg/Kg
FDG-SL-749-SA5C-SB-0.0-0.5(RES)	TIN	2.99 mg/Kg	2.99U mg/Kg

Method: **6020A**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P13437DB220455A	5/16/2014 4:55:00 AM	STRONTIUM	0.0750 mg/Kg	FDG-SL-1049-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-2.0-3.0 FDG-SL-749-SA5C-SB-0.0-0.5

Method Blank Outlier Report

Lab Reporting Batch ID: PH173 **Laboratory: LL**

EDD Filename: PH173_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method: **8270D SIM**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWE13B261335	5/20/2014 1:35:00 PM	BIS(2-ETHYLHEXYL)PHTHALATE Di-n-butylphthalate	0.075 ug/L 0.064 ug/L	EB-050814

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-050814(RES)	Di-n-butylphthalate	0.16 ug/L	1.0U ug/L

Equipment Rinsate Blank Outlier Report

Lab Reporting Batch ID: PH173 **Laboratory: LL**

EDD Filename: PH173_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method: **6010C**
Matrix: **SO**

Equipment Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
EB-050814(REA)	5/8/2014 3:00:00 PM	BORON MANGANESE ZINC	0.0084 mg/L 0.0013 mg/L 0.0031 mg/L	FDG-SL-1049-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-2.0-3.0 FDG-SL-749-SA5C-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
FDG-SL-1049-SA5C-SB-0.0-0.5(RES)	BORON	1.59 mg/Kg	1.59U mg/Kg
FDG-SL-511-SA5C-SB-0.0-0.5(RES)	BORON	3.72 mg/Kg	3.72U mg/Kg
FDG-SL-511-SA5C-SB-2.0-3.0(RES)	BORON	1.16 mg/Kg	1.16U mg/Kg
FDG-SL-749-SA5C-SB-0.0-0.5(RES)	BORON	1.77 mg/Kg	1.77U mg/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH173 **Laboratory: LL**

EDD Filename: PH173_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method: 8270D SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
FDG-SL-749-SA5C-SB-0.0-0.5MS FDG-SL-749-SA5C-SB-0.0-0.5MSD (FDG-SL-749-SA5C-SB-0.0-0.5)	1-METHYLNAPHTHALENE	-	247	59.00-139.00	74 (30.00)	1-METHYLNAPHTHALENE	J (all detects)
	2-METHYLNAPHTHALENE	-	219	46.00-147.00	67 (30.00)	2-METHYLNAPHTHALENE	
	ANTHRACENE	-	127	52.00-126.00	-	ANTHRACENE	
	BIS(2-ETHYLHEXYL)PHTHALAT	-	166	48.00-164.00	39 (30.00)	BIS(2-ETHYLHEXYL)PHTHALA	
	FLUORANTHENE	-	-	38.00-153.00	42 (30.00)	FLUORANTHENE	
	NAPHTHALENE	-	-	52.00-136.00	40 (30.00)	NAPHTHALENE	
	PHENANTHRENE	154	399	50.00-137.00	82 (30.00)	PHENANTHRENE	
	PYRENE	-	144	26.00-143.00	40 (30.00)	PYRENE	

Method: 6010C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
FDG-SL-749-SA5C-SB-0.0-0.5MS (TOT) FDG-SL-749-SA5C-SB-0.0-0.5MSD (TOT) (FDG-SL-1049-SA5C-SB-0.0-0.5 FDG -SL-511-SA5C-SB-0.0-0.5 FDG -SL-511-SA5C-SB-2.0-3.0 FDG -SL-749-SA5C-SB-0.0-0.5)	ALUMINUM	3014	2861	75.00-125.00	-	ALUMINUM	J(all detects) Al, Ca, Fe, Mg, Mn, Ti, No Qual, >4x
	CALCIUM	369	365	75.00-125.00	-	CALCIUM	
	CHROMIUM	127	128	75.00-125.00	-	CHROMIUM	
	COPPER	-	136	75.00-125.00	-	COPPER	
	IRON	3011	3164	75.00-125.00	-	IRON	
	MAGNESIUM	468	442	75.00-125.00	-	MAGNESIUM	
	MANGANESE	198	-	75.00-125.00	-	MANGANESE	
	PHOSPHORUS	-	154	75.00-125.00	-	PHOSPHORUS	
	POTASSIUM	155	150	75.00-125.00	-	POTASSIUM	
	TITANIUM	363	380	75.00-125.00	-	TITANIUM	
FDG-SL-749-SA5C-SB-0.0-0.5MS (TOT) FDG-SL-749-SA5C-SB-0.0-0.5MSD (TOT) (FDG-SL-1049-SA5C-SB-0.0-0.5 FDG -SL-511-SA5C-SB-0.0-0.5 FDG -SL-511-SA5C-SB-2.0-3.0 FDG -SL-749-SA5C-SB-0.0-0.5)	ANTIMONY	47	45	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects)
	ZINC	161	237	75.00-125.00	22 (20.00)	ZINC	

Method: 6020A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
FDG-SL-749-SA5C-SB-0.0-0.5MS (TOT) FDG-SL-749-SA5C-SB-0.0-0.5MSD (TOT) (FDG-SL-1049-SA5C-SB-0.0-0.5 FDG -SL-511-SA5C-SB-0.0-0.5 FDG -SL-511-SA5C-SB-2.0-3.0 FDG -SL-749-SA5C-SB-0.0-0.5)	STRONTIUM	221	184	75.00-125.00	-	STRONTIUM	J(all detects)

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH173 **Laboratory: LL**

EDD Filename: PH173_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method: **1613B**
Matrix: **SO**

QC Sample ID (Associated Samples)	*Compound*	*MS %R*	*MSD %R*	*%R Limits*	*RPD (Limits)*	*Affected Compounds*	*Flag*
FDG-SL-749-SA5C-SB-0.0-0.5MS	1,2,3,4,6,7,8-HPCDD	429	656	40.00-135.00	21 (20.00)	1,2,3,4,6,7,8-HPCDD	J(all detects)
	1,2,3,4,6,7,8-HPCDF	-	142	40.00-135.00	30 (20.00)	1,2,3,4,6,7,8-HPCDF	
FDG-SL-749-SA5C-SB-0.0-0.5MSD (FDG-SL-749-SA5C-SB-0.0-0.5)	OCDD	255	1840	40.00-135.00	58 (20.00)	OCDD	1,2,3,4,6,7,8-HPCDD, OCDD, No Qual, >4x
	OCDF	-	153	40.00-135.00	31 (20.00)	OCDF	

Lab Duplicate Outlier Report

Lab Reporting Batch ID: PH173 **Laboratory: LL**

EDD Filename: PH173_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method: 6010C
Matrix: SO

QC Sample ID (Associated Sample ID)	*Analyte*	*Sample RPD*	*eQAPP RPD*	*Flag*
FDG-SL-749-SA5C-SB-0.0-0.5DUP (TOT) (FDG-SL-1049-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-2.0-3.0 FDG-SL-749-SA5C-SB-0.0-0.5)	MANGANESE MOLYBDENUM	24 65	20.00 20.00	J (all detects) UJ (all non-detects) Mo, No Qual, OK by Difference

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH173 **Laboratory: LL**

EDD Filename: PH173_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method: 8270D SIM
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P4WELCSQ261404 P4WELCSY261433 (EB-050814)	BIS(2-ETHYLHEXYL)PHTHALAT	58	-	70.00-143.00	33 (30.00)	BIS(2-ETHYLHEXYL)PHTHALA	J (all detects) UJ (all non-detects)

Method: 6020A
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P13539AY221932B (TOT) (EB-050814)	SELENIUM	-	133	80.00-120.00	-	SELENIUM	J(all detects)

Method: 8082A
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P41348AQ242324A P41348AY242342A (EB-050814)	AROCLOR 1260	59	82	67.00-128.00	33 (30.00)	AROCLOR 1242 AROCLOR 1248 AROCLOR 1254 AROCLOR 1260	J(all detects) UJ(all non-detects)

Reporting Limit Outliers

Lab Reporting Batch ID: PH173 **Laboratory: LL**

EDD Filename: PH173_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method: 1613B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-050814	1,2,3,4,6,7,8-HPCDD	JBQ	0.216	9.70	PQL	pg/L	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.224	9.70	PQL	pg/L	
	1,2,3,4,7,8,9-HPCDF	JB	0.205	9.70	PQL	pg/L	
	1,2,3,4,7,8-HxCDD	JQ	0.146	9.70	PQL	pg/L	
	1,2,3,4,7,8-HXCDF	JBQ	0.131	9.70	PQL	pg/L	
	1,2,3,6,7,8-HXCDF	JBQ	0.146	9.70	PQL	pg/L	
	1,2,3,7,8-PECDF	JBQ	0.312	9.70	PQL	pg/L	
	2,3,4,6,7,8-HXCDF	JQ	0.114	9.70	PQL	pg/L	
	OCDD	JBQ	1.06	19.4	PQL	pg/L	
	OCDF	JB	0.824	19.4	PQL	pg/L	

Method: 6010C

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-050814	BORON	J	0.0084	0.100	PQL	mg/L	J (all detects)
	MANGANESE	J	0.0013	0.0100	PQL	mg/L	
	ZINC	J	0.0031	0.0400	PQL	mg/L	

Method: 8270D SIM

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-050814	ACENAPHTHENE	J	0.016	0.051	PQL	ug/L	J (all detects)
	ACENAPHTHYLENE	J	0.021	0.051	PQL	ug/L	
	Diethylphthalate	J	0.48	1.0	PQL	ug/L	
	Di-n-butylphthalate	J	0.16	1.0	PQL	ug/L	

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG-SL-1049-SA5C-SB-0.0 -0.5	1,2,3,4,6,7,8-HPCDF	JB	2.75	5.22	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	JB	0.483	5.22	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.202	5.22	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	J	0.133	5.22	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.758	5.22	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JQ	0.272	5.22	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.567	5.22	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.138	5.22	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.131	5.22	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0849	5.22	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JQ	0.363	5.22	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.241	5.22	PQL	ng/Kg	
	OCDF	JB	6.53	10.4	PQL	ng/Kg	

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Reporting Limit Outliers

Lab Reporting Batch ID: PH173 **Laboratory: LL**

EDD Filename: PH173_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG-SL-511-SA5C-SB-0.0-0.5	1,2,3,7,8-PECDF	JB	1.75	5.30	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	3.07	5.30	PQL	ng/Kg	J (all detects)
	2,3,7,8-TCDF	J	0.630	1.06	PQL	ng/Kg	
FDG-SL-511-SA5C-SB-2.0-3.0	1,2,3,4,7,8-HXCDF	J	3.42	5.04	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	J	4.44	5.04	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	4.52	5.04	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.761	5.04	PQL	ng/Kg	J (all detects)
	2,3,4,7,8-PECDF	JB	1.50	5.04	PQL	ng/Kg	
	2,3,7,8-TCDD	JBQ	0.353	1.01	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.264	1.01	PQL	ng/Kg	
FDG-SL-749-SA5C-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	JB	2.47	5.20	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	3.04	5.20	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	J	0.945	5.20	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JQ	1.11	5.20	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.322	5.20	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	1.87	5.20	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDF	JBQ	0.388	5.20	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	J	1.84	5.20	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.460	5.20	PQL	ng/Kg	
	2,3,7,8-TCDD	JB	0.176	1.04	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.150	1.04	PQL	ng/Kg	

Method: 6010C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG-SL-1049-SA5C-SB-0.0-0.5	BERYLLIUM	J	0.562	1.04	PQL	mg/Kg	
	BORON	J	1.59	10.4	PQL	mg/Kg	
	SODIUM	J	76.4	104	PQL	mg/Kg	J (all detects)
	TIN	J	2.73	10.4	PQL	mg/Kg	
	Zirconium	J	3.13	5.19	PQL	mg/Kg	
FDG-SL-511-SA5C-SB-0.0-0.5	BERYLLIUM	J	0.814	1.06	PQL	mg/Kg	
	BORON	J	3.72	10.6	PQL	mg/Kg	
	CADMIUM	J	0.403	1.06	PQL	mg/Kg	
	MOLYBDENUM	J	0.399	2.12	PQL	mg/Kg	J (all detects)
	SODIUM	J	95.9	106	PQL	mg/Kg	
	TIN	J	3.04	10.6	PQL	mg/Kg	
	Zirconium	J	3.76	5.29	PQL	mg/Kg	
FDG-SL-511-SA5C-SB-2.0-3.0	BERYLLIUM	J	0.400	1.02	PQL	mg/Kg	
	BORON	J	1.16	10.2	PQL	mg/Kg	
	CADMIUM	J	0.247	1.02	PQL	mg/Kg	
	MOLYBDENUM	J	0.209	2.04	PQL	mg/Kg	J (all detects)
	SODIUM	J	64.9	102	PQL	mg/Kg	
	TIN	J	2.38	10.2	PQL	mg/Kg	
	Zirconium	J	2.15	5.10	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH173 **Laboratory: LL**

EDD Filename: PH173_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method: 6010C
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG-SL-749-SA5C-SB-0.0-0.5	BERYLLIUM	J	0.572	1.01	PQL	mg/Kg	J (all detects)
	BORON	J	1.77	10.1	PQL	mg/Kg	
	MOLYBDENUM	J	0.442	2.02	PQL	mg/Kg	
	SODIUM	J	88.5	101	PQL	mg/Kg	
	TIN	J	2.99	10.1	PQL	mg/Kg	
	Zirconium	J	3.11	5.06	PQL	mg/Kg	

Method: 6020A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG-SL-1049-SA5C-SB-0.0-0.5	SELENIUM	J	0.160	0.415	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0444	0.207	PQL	mg/Kg	
FDG-SL-511-SA5C-SB-0.0-0.5	SELENIUM	J	0.270	0.423	PQL	mg/Kg	J (all detects)
	SILVER	J	0.137	0.212	PQL	mg/Kg	
FDG-SL-511-SA5C-SB-2.0-3.0	SELENIUM	J	0.127	0.408	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0375	0.204	PQL	mg/Kg	
	THALLIUM	J	0.126	0.204	PQL	mg/Kg	
FDG-SL-749-SA5C-SB-0.0-0.5	SELENIUM	J	0.152	0.405	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0300	0.202	PQL	mg/Kg	

Method: 7471B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG-SL-749-SA5C-SB-0.0-0.5	MERCURY	J	0.0139	0.0168	PQL	mg/Kg	J (all detects)

Method: 8082A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG-SL-511-SA5C-SB-0.0-0.5	AROCLOR 1254	J	11	18	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	11	18	PQL	ug/Kg	
	Aroclor 5460	J	19	36	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH173 **Laboratory: LL**

EDD Filename: PH173_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method: 8270D SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FDG-SL-1049-SA5C-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	1.1	1.7	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	1.1	1.7	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	0.95	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	9.8	19	PQL	ug/Kg	
	Butylbenzylphthalate	J	7.1	19	PQL	ug/Kg	
	CHRYSENE	J	0.46	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	0.80	1.7	PQL	ug/Kg	
	PYRENE	J	1.2	1.7	PQL	ug/Kg	
FDG-SL-511-SA5C-SB-0.0-0.5	BENZO(E)PYRENE	J	13	18	PQL	ug/Kg	J (all detects)
	Butylbenzylphthalate	J	11	19	PQL	ug/Kg	
FDG-SL-511-SA5C-SB-2.0-3.0	ANTHRACENE	J	1.4	1.7	PQL	ug/Kg	J (all detects)
	BENZO(E)PYRENE	J	6.7	18	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	12	19	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.0	1.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.88	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.69	1.7	PQL	ug/Kg	
FDG-SL-749-SA5C-SB-0.0-0.5	BENZO(A)ANTHRACENE	J	1.2	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	0.89	1.7	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	1.0	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	12	19	PQL	ug/Kg	
	Butylbenzylphthalate	J	6.8	19	PQL	ug/Kg	
	CHRYSENE	J	1.3	1.7	PQL	ug/Kg	
	Di-n-octylphthalate	J	9.3	19	PQL	ug/Kg	
	NAPHTHALENE	J	1.1	1.7	PQL	ug/Kg	

Field Duplicate RPD Report

Lab Reporting Batch ID: PH173 **Laboratory: LL**

EDD Filename: PH173_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	FDG-SL-749-SA5C-SB-0.0-0.5	FDG-SL-1049-SA5C-SB-0.0-0.5			
MOISTURE	5.0	5.5	10		No Qualifiers Applied

Method: 1613B
Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	FDG-SL-749-SA5C-SB-0.0-0.5	FDG-SL-1049-SA5C-SB-0.0-0.5			
1,2,3,4,6,7,8-HPCDD	572	24.2	184	50.00	J(all detects) UJ(all non-detects)
1,2,3,4,6,7,8-HPCDF	29.6	2.75	166	50.00	
1,2,3,4,7,8,9-HPCDF	2.47	0.483	135	50.00	
1,2,3,4,7,8-HxCDD	3.04	0.202	175	50.00	
1,2,3,4,7,8-HXCDF	0.945	0.133	151	50.00	
1,2,3,6,7,8-HXCDD	22.1	0.758	187	50.00	
1,2,3,6,7,8-HXCDF	1.11	0.272	121	50.00	
1,2,3,7,8,9-HXCDD	8.42	0.567	175	50.00	
1,2,3,7,8,9-HXCDF	0.322	0.138	80	50.00	
1,2,3,7,8-PECDD	1.87	0.131	174	50.00	
1,2,3,7,8-PECDF	0.388	0.0849	128	50.00	
2,3,4,6,7,8-HXCDF	1.84	0.363	134	50.00	
2,3,4,7,8-PECDF	0.460	0.241	62	50.00	
2,3,7,8-TCDD	0.176	1.04 U	200	50.00	
2,3,7,8-TCDF	0.150	1.04 U	200	50.00	
OCDD	3460	161	182	50.00	
OCDF	66.6	6.53	164	50.00	

Method: 6010C
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	FDG-SL-749-SA5C-SB-0.0-0.5 (TOT)	FDG-SL-1049-SA5C-SB-0.0-0.5 (TOT)			
ALUMINUM	13700	13800	1	50.00	No Qualifiers Applied
ARSENIC	5.70	4.95	14	50.00	
BARIUM	74.6	70.2	6	50.00	
BERYLLIUM	0.572	0.562	2	50.00	
BORON	1.77	1.59	11	50.00	
CHROMIUM	16.7	17.1	2	50.00	
COBALT	4.98	4.87	2	50.00	
COPPER	11.8	10.6	11	50.00	
IRON	19700	18100	8	50.00	
LEAD	8.82	7.07	22	50.00	
LITHIUM	22.7	20.9	8	50.00	
MAGNESIUM	4070	3830	6	50.00	
MANGANESE	304	256	17	50.00	
NICKEL	13.4	12.4	8	50.00	
PHOSPHORUS	274	259	6	50.00	
POTASSIUM	2330	2160	8	50.00	
SODIUM	88.5	76.4	15	50.00	
TIN	2.99	2.73	9	50.00	
TITANIUM	972	925	5	50.00	
VANADIUM	36.3	35.9	1	50.00	
ZINC	75.8	49.7	42	50.00	
Zirconium	3.11	3.13	1	50.00	
CALCIUM	3330	5940	56	50.00	J(all detects) UJ(all non-detects)
MOLYBDENUM	0.442	2.07 U	200	50.00	

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3

Field Duplicate RPD Report

Lab Reporting Batch ID: PH173 **Laboratory: LL**

EDD Filename: PH173_v3 **eQAPP Name: CDM_SSFL_140617_Lan**

Method: 6020A
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	FDG-SL-749-SA5C-SB-0.0-0.5 (TOT)	FDG-SL-1049-SA5C-SB-0.0-0.5 (TOT)			
SELENIUM	0.152	0.160	5	50.00	No Qualifiers Applied
SILVER	0.0300	0.0444	39	50.00	
STRONTIUM	28.7	27.3	5	50.00	
THALLIUM	0.276	0.248	11	50.00	

Method: 7471B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	FDG-SL-749-SA5C-SB-0.0-0.5 (TOT)	FDG-SL-1049-SA5C-SB-0.0-0.5 (TOT)			
MERCURY	0.0139	0.0170 U	200	50.00	J(all detects) UJ(all non-detects)

Method: 8270D SIM
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	FDG-SL-749-SA5C-SB-0.0-0.5	FDG-SL-1049-SA5C-SB-0.0-0.5			
BENZO(A)ANTHRACENE	1.2	0.95	23	50.00	No Qualifiers Applied
BIS(2-ETHYLHEXYL)PHTHALATE	12	9.8	20	50.00	
Butylbenzylphthalate	6.8	7.1	4	50.00	
PHENANTHRENE	8.6	9.7	12	50.00	
1-METHYLNAPHTHALENE	4.1	1.1	115	50.00	J(all detects) UJ(all non-detects)
2-METHYLNAPHTHALENE	3.4	1.7 U	200	50.00	
ANTHRACENE	2.0	1.1	58	50.00	
BENZO(A)PYRENE	0.89	1.7 U	200	50.00	
BENZO(B)FLUORANTHENE	1.0	1.7 U	200	50.00	
CHRYSENE	1.3	0.46	95	50.00	
Di-n-octylphthalate	9.3	19 U	200	50.00	
FLUORANTHENE	1.9	0.80	81	50.00	
NAPHTHALENE	1.1	1.7 U	200	50.00	
PYRENE	2.1	1.2	55	50.00	

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	FDG-SL-749-SA5C-SB-0.0-0.5	FDG-SL-1049-SA5C-SB-0.0-0.5			
PH	8.17	8.15	0	50.00	No Qualifiers Applied

Enclosure II

Level IV Data Validation Reports

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: May 8, 2014

LDC Report Date: June 25, 2014

Matrix: Soil/Water

Parameters: Semivolatiles

Validation Level: Level IV

Laboratory: Eurofins Lancaster Laboratories

Sample Delivery Group (SDG): PH173

Sample Identification

EB-050814
FDG-SL-511-SA5C-SB-0.0-0.5
FDG-SL-511-SA5C-SB-2.0-3.0
FDG-SL-749-SA5C-SB-0.0-0.5
FDG-SL-1049-SA5C-SB-0.0-0.5
FDG-SL-749-SA5C-SB-0.0-0.5MS
FDG-SL-749-SA5C-SB-0.0-0.5MSD

Introduction

This data review covers 6 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270D using Selected Ion Monitoring (SIM) for Semivolatiles.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals. All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990.

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
5/20/14	Bis(2-ethylhexyl)phthalate	29	All soil samples in SDG PH173	J (all detects) UJ (all non-detects)	A
	Di-n-octylphthalate	28		J (all detects) UJ (all non-detects)	

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
5/2/14	Benzo(b)fluoranthene	26	All soil samples in SDG PH173	J (all detects) UJ (all non-detects)	A

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method.

Sample EB-050814 was identified as an equipment blank. No semivolatile contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB-050814	5/8/14	Acenaphthene Acenaphthylene Di-n-butylphthalate Diethylphthalate	0.016 ug/L 0.021 ug/L 0.16 ug/L 0.48 ug/L	All soil samples in SDG PH173

Sample FB-051314 (from SDG PH176) was identified as a field blank. No semivolatile contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration	Associated Samples
FB-051314	5/13/14	Diethylphthalate Di-n-butylphthalate Bis(2-ethylhexyl)phthalate	0.47 ug/L 0.22 ug/L 0.25 ug/L	All soil samples in SDG PH173

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated field blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
FDG-SL-749-SA5C-SB-0.0-0.5MS/MSD (FDG-SL-749-SA5C-SB-0.0-0.5)	Naphthalene	-	-	40 (≤30)	J (all detects)	A
	2-Methylnaphthalene	-	219 (46-147)	67 (≤30)	J (all detects)	
	1-Methylnaphthalene	-	247 (59-139)	74 (≤30)	J (all detects)	
	Phenanthrene	154 (50-137)	339 (50-137)	82 (≤30)	J (all detects)	
	Anthracene	-	127 (52-126)	-	J (all detects)	
	Fluoranthene	-	-	42 (≤30)	J (all detects)	
	Pyrene	-	144 (26-143)	40 (≤30)	J (all detects)	
	Bis(2-ethylhexyl)phthalate	-	166 (48-164)	39 (≤30)	J (all detects)	

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limit with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
134WELCS/D (All water samples in SDG PH173)	Bis(2-ethylhexyl)phthalate	58 (70-143)	-	33 (≤30)	J (all detects) UJ (all non-detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation

All compound quantitation were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG PH173	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples FDG-SL-749-SA5C-SB-0.0-0.5 and FDG-SL-1049-SA5C-SB-0.0-0.5 were identified as field duplicates. No volatiles were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/Kg)		RPD (Limits)	Flag	A or P
	FDG-SL-749-SA5C-SB-0.0-0.5	FDG-SL-1049-SA5C-SB-0.0-0.5			
Anthracene	2.0	1.1	58 (≤50)	J (all detects)	A
Benzo(a)anthracene	1.2	0.95	23 (≤50)	-	-
Benzo(a)pyrene	0.89	1.7U	200 (≤50)	J (all detects) UJ (all non-detects)	A
Benzo(b)fluoranthene	1.0	1.7U	200 (≤50)	J (all detects) UJ (all non-detects)	A
Butylbenzylphthalate	6.8	7.1	4 (≤50)	-	-
Chrysene	1.3	0.46	95 (≤50)	J (all detects)	A
Bis(2-ethylhexyl)phthalate	12	9.8	20 (≤50)	-	-
Fluoranthene	1.9	0.80	81 (≤50)	J (all detects)	A
1-Methylnaphthalene	4.1	1.1	115 (≤50)	J (all detects)	A
2-Methylnaphthalene	3.4	1.7U	200 (≤50)	J (all detects) UJ (all non-detects)	A
Naphthalene	1.1	1.7U	200 (≤50)	J (all detects) UJ (all non-detects)	A
Di-n-octylphthalate	9.3	19	200 (≤50)	J (all detects) UJ (all non-detects)	A

Compound	Concentration (ug/Kg)		RPD (Limits)	Flag	A or P
	FDG-SL-749-SA5C-SB-0.0-0.5	FDG-SL-1049-SA5C-SB-0.0-0.5			
Phenanthrene	8.6	9.7	12 (≤50)	-	-
Pyrene	2.1	1.2	55 (≤50)	J (all detects)	A

Santa Susana Field Laboratory
Semivolatiles - Data Qualification Summary - SDG PH173

SDG	Sample	Compound	Flag	A or P	Reason (Code)
PH173	FDG-SL-511-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-2.0-3.0 FDG-SL-749-SA5C-SB-0.0-0.5 FDG-SL-1049-SA5C-SB-0.0-0.5	Bis(2-ethylhexyl)phthalate Di-n-octylphthalate	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
PH173	FDG-SL-511-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-2.0-3.0 FDG-SL-749-SA5C-SB-0.0-0.5 FDG-SL-1049-SA5C-SB-0.0-0.5	Benzo(b)fluoranthene	J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D) (C)
PH173	FDG-SL-749-SA5C-SB-0.0-0.5	Naphthalene Fluoranthene	J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (RPD) (Q)
PH173	FDG-SL-749-SA5C-SB-0.0-0.5	2-Methylnaphthalene 1-Methylnaphthalene Phenanthrene Pyrene Bis(2-ethylhexyl)phthalate	J (all detects) J (all detects) J (all detects) J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (%R)(RPD) (Q)
PH173	FDG-SL-749-SA5C-SB-0.0-0.5	Anthracene	J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
PH173	EB-050814	Bis(2-ethylhexyl)phthalate	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R)(RPD) (L,E)
PH173	EB-050814 FDG-SL-511-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-2.0-3.0 FDG-SL-749-SA5C-SB-0.0-0.5 FDG-SL-1049-SA5C-SB-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation (Z)
PH173	FDG-SL-749-SA5C-SB-0.0-0.5 FDG-SL-1049-SA5C-SB-0.0-0.5	Anthracene Chrysene Fluoranthene 1-Methylnaphthalene Pyrene	J (all detects) J (all detects) J (all detects) J (all detects) J (all detects)	A	Field duplicates (RPD) (FD)
PH173	FDG-SL-749-SA5C-SB-0.0-0.5 FDG-SL-1049-SA5C-SB-0.0-0.5	Benzo(a)pyrene Benzo(b)fluoranthene 2-Methylnaphthalene Naphthalene Di-n-octylphthalate	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG PH173

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Semivolatiles - Field Blank Data Qualification Summary - SDG PH173

No Sample Data Qualified in this SDG

LDC #: 31964B2b **VALIDATION COMPLETENESS WORKSHEET** Date: 6/24/14
SDG #: PH173 Level IV Page: 1 of 1
Laboratory: Eurofins Lancaster Laboratories Reviewer: BR
2nd Reviewer: SM

METHOD: GC/MS ~~Polynuclear Aromatic Hydrocarbons~~ Semivolatiles (EPA SW 846 Method 8270C-SIM)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 5/8/14
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	RSD ≤ 30 2, r²
IV.	Continuing calibration/ICV	SW	ICV/CCV ≤ 25)
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	SW	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	FD = 4+5
XVII.	Field blanks	SW	EB = 1 FB = FB-051314 CSDG # PH176

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Water + Soil

1	EB-050814 W	11		21		31	SBLKWE134
2	FDG-SL-511-SA5C-SB-0.0-0.5 S	12		22		32	SBLKF133
3	FDG-SL-511-SA5C-SB-2.0-3.0	13		23		33	
4	FDG-SL-749-SA5C-SB-0.0-0.5	14		24		34	
5	FDG-SL-1049-SA5C-SB-0.0-0.5	15		25		35	
6	FDG-SL-749-SA5C-SB-0.0-0.5MS	16		26		36	
7	FDG-SL-749-SA5C-SB-0.0-0.5MSD	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 31964B26

VALIDATION FINDINGS CHECKLIST

Reviewer: BR
2nd Reviewer: SM

Method: Semivolatiles (EPA SW 846 Method 8270D)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS Instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ ~~30~~ 30% and relative response factors (RRF) within the method criteria?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) ≤ ~~20~~ 25% and relative response factors (RRF) ≥ 0.05?	~~✓~~ 25%	✓		
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	✓			
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?		✓		
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?		✓		

LDC #: 31964B26

VALIDATION FINDINGS CHECKLIST

Page: __ of __
Reviewer: BR
2nd Reviewer: SM

Validation Area	Yes	No	NA	Findings/Comments
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?		✓		
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.	✓			
XVII. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.	✓			

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS SVOA

A. Phenol	T. 4-Chloroaniline	MM. 4-Chlorophenyl-phenyl ether	FFF. Di-n-octylphthalate	YYY. 2,3,5-Trimethylnaphthalene
B. Bis (2-chloroethyl) ether	U. Hexachlorobutadiene	NN. Fluorene	GGG. Benzo(b)fluoranthene	ZZZ. Perylene
C. 2-Chlorophenol	V. 4-Chloro-3-methylphenol	OO. 4-Nitroaniline	HHH. Benzo(k)fluoranthene	AAAA. Dibenzothiophene
D. 1,3-Dichlorobenzene	W. 2-Methylnaphthalene	PP. 4,6-Dinitro-2-methylphenol	III. Benzo(a)pyrene	BBBB. Benzo(a)fluoranthene
E. 1,4-Dichlorobenzene	X. Hexachlorocyclopentadiene	QQ. N-Nitrosodiphenylamine	JJJ. Indeno(1,2,3-cd)pyrene	CCCC. Benzo(b)fluorene
F. 1,2-Dichlorobenzene	Y. 2,4,6-Trichlorophenol	RR. 4-Bromophenyl-phenylether	KKK. Dibenz(a,h)anthracene	DDDD. cis/trans-Decalin
G. 2-Methylphenol	Z. 2,4,5-Trichlorophenol	SS. Hexachlorobenzene	LLL. Benzo(g,h,i)perylene	EEEE. Biphenyl
H. 2,2'-Oxybis(1-chloropropane)	AA. 2-Chloronaphthalene	TT. Pentachlorophenol	MMM. Bis(2-Chloroisopropyl)ether	FFFF. Retene
I. 4-Methylphenol	BB. 2-Nitroaniline	UU. Phenanthrene	NNN. Aniline	GGGG. C30-Hopane
J. N-Nitroso-di-n-propylamine	CC. Dimethylphthalate	VV. Anthracene	OOO. N-Nitrosodimethylamine	HHHH. 1-Methylphenanthrene
K. Hexachloroethane	DD. Acenaphthylene	WW. Carbazole	PPP. Benzoic Acid	IIII. 1,4-Dioxane
L. Nitrobenzene	EE. 2,6-Dinitrotoluene	XX. Di-n-butylphthalate	QQQ. Benzyl alcohol	JJJJ. Acetophenone
M. Isophorone	FF. 3-Nitroaniline	YY. Fluoranthene	RRR. Pyridine	KKKK. Atrazine
N. 2-Nitrophenol	GG. Acenaphthene	ZZ. Pyrene	SSS. Benzidine	LLLL. Benzaldehyde
O. 2,4-Dimethylphenol	HH. 2,4-Dinitrophenol	AAA. Butylbenzylphthalate	TTT. 1-Methylnaphthalene	MMMM. Caprolactam
P. Bis(2-chloroethoxy)methane	II. 4-Nitrophenol	BBB. 3,3'-Dichlorobenzidine	UUU.Benzo(b)thiophene	NNNN.
Q. 2,4-Dichlorophenol	JJ. Dibenzofuran	CCC. Benzo(a)anthracene	VVV.Benzonaphthothiophene	OOOO.
R. 1,2,4-Trichlorobenzene	KK. 2,4-Dinitrotoluene	DDD. Chrysene	WWW.Benzo(e)pyrene	PPPP.
S. Naphthalene	LL. Diethylphthalate	EEE. Bis(2-ethylhexyl)phthalate	XXX. 2,6-Dimethylnaphthalene	QQQQ.

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS SVOA

A. Phenol	T. 4-Chloroaniline	MM. 4-Chlorophenyl-phenyl ether	FFF. Di-n-octylphthalate	YYY. 2,3,5-Trimethylnaphthalene
B. Bis (2-chloroethyl) ether	U. Hexachlorobutadiene	NN. Fluorene	GGG. Benzo(b)fluoranthene	ZZZ. Perylene
C. 2-Chlorophenol	V. 4-Chloro-3-methylphenol	OO. 4-Nitroaniline	HHH. Benzo(k)fluoranthene	AAAA. Dibenzothiophene
D. 1,3-Dichlorobenzene	W. 2-Methylnaphthalene	PP. 4,6-Dinitro-2-methylphenol	III. Benzo(a)pyrene	BBBB. Benzo(a)fluoranthene
E. 1,4-Dichlorobenzene	X. Hexachlorocyclopentadiene	QQ. N-Nitrosodiphenylamine	JJJ. Indeno(1,2,3-cd)pyrene	CCCC. Benzo(b)fluorene
F. 1,2-Dichlorobenzene	Y. 2,4,6-Trichlorophenol	RR. 4-Bromophenyl-phenylether	KKK. Dibenz(a,h)anthracene	DDDD. cis/trans-Decalin
G. 2-Methylphenol	Z. 2,4,5-Trichlorophenol	SS. Hexachlorobenzene	LLL. Benzo(g,h,i)perylene	EEEE. Biphenyl
H. 2,2'-Oxybis(1-chloropropane)	AA. 2-Chloronaphthalene	TT. Pentachlorophenol	MMM. Bis(2-Chloroisopropyl)ether	FFFF. Retene
I. 4-Methylphenol	BB. 2-Nitroaniline	UU. Phenanthrene	NNN. Aniline	GGGG. C30-Hopane
J. N-Nitroso-di-n-propylamine	CC. Dimethylphthalate	VV. Anthracene	OOO. N-Nitrosodimethylamine	HHHH. 1-Methylphenanthrene
K. Hexachloroethane	DD. Acenaphthylene	WW. Carbazole	PPP. Benzoic Acid	IIII. 1,4-Dioxane
L. Nitrobenzene	EE. 2,6-Dinitrotoluene	XX. Di-n-butylphthalate	QQQ. Benzyl alcohol	JJJJ. Acetophenone
M. Isophorone	FF. 3-Nitroaniline	YY. Fluoranthene	RRR. Pyridine	KKKK. Atrazine
N. 2-Nitrophenol	GG. Acenaphthene	ZZ. Pyrene	SSS. Benzidine	LLLL. Benzaldehyde
O. 2,4-Dimethylphenol	HH. 2,4-Dinitrophenol	AAA. Butylbenzylphthalate	TTT. 1-Methylnaphthalene	MMMM. Caprolactam
P. Bis(2-chloroethoxy)methane	II. 4-Nitrophenol	BBB. 3,3'-Dichlorobenzidine	UUU.Benzo(b)thiophene	NNNN.
Q. 2,4-Dichlorophenol	JJ. Dibenzofuran	CCC. Benzo(a)anthracene	VVV.Benzonaphthothiophene	OOOO.
R. 1,2,4-Trichlorobenzene	KK. 2,4-Dinitrotoluene	DDD. Chrysene	WWW.Benzo(e)pyrene	PPPP.
S. Naphthalene	LL. Diethylphthalate	EEE. Bis(2-ethylhexyl)phthalate	XXX. 2,6-Dimethylnaphthalene	QQQQ.

LDC #: 31964B2L

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Reviewer: KR
2nd Reviewer: CW

METHOD: GC/MS BNA (EPA SW 846 Method 8270D)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?

Y (N) N/A Were percent differences (%D) ≤25 % and relative response factors (RRF) within the method criteria?

#	Date	Standard ID	Compound	Finding %D (Limit: <25.0%)	Finding RRF (Limit)	Associated Samples	Qualifications
	5/2/14	ICV-fe0020	GGG	26		All soil	J/UJ/A (C)
	5/20/14	CCV-fe0511	EEE	29		All soil	J/UJ/A (C)
			FFF	28			↓

LDC #: 31964826

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: BR
2nd Reviewer: SM

METHOD: GC/MS BNA (EPA SW 846 Method 8270D)

Y N N/A Were field blanks identified in this SDG?

Y N N/A Were target compounds detected in the field blanks?

Blank units: ug/L **Associated sample units:** ug/kg

Sampling date: 05/8/14

Field blank type: (circle one) Field Blank / Rinsate / Other: EB Associated Samples: All soil (ND)

Code: F

Compound	Blank ID		Sample Identification							
	1	5x/10x								
GG	0.016	0.08								
DD	0.021	0.105								
XX	0.14	1.4								
LL	0.48	4.8								

Blank units: ug/L **Associated sample units:** ug/L, ug/kg

FB = FB-051314 (SDG # PH176)

Sampling date: 5/13/14

Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: All soil 2-5 = ug/kg = ND + 75x

Code: F

Compound	Blank ID		Sample Identification							
	FB		1							
LL	0.47		0.48/1.0U							
XX	0.22		~~0.16~~/1.0U							
EEE	0.25									

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Common contaminants such as the phthalates and TICs noted above that were detected in samples within ten times the associated field blank concentration were qualified as not detected, "U". Other contaminants within five times the field blank concentration were also qualified as not detected, "U".

LDC #: 31964B26

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Reviewer: KM
2nd Reviewer: SM

METHOD: GC/MS BNA (EPA SW 846 Method 8270D)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

(Y) N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

(Y) N N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		6/7	S	( )	( )	40 (30)	4	J det / A (Q)
			W	( )	219 (46-147	67 ( )		
			TTT	( )	247 (59-137	74 ( )		
			UU	154 (50-137	399 (50-137	82 ( )		
			VV	( )	127 (52-126	( )		
			YY	( )	( )	42 ( )		
			ZZ	( )	144 (26-143	40 ( )		
			EEE	( )	166 (48-164	39 ( )		✓
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		
				( )	( )	( )		

LDC #: 31964B26

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: BR
2nd Reviewer: SM

METHOD: GC/MS BNA (EPA SW 846 Method 8270D)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a LCS required?

Y (N) N/A Were the LCS/LCSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		134WELCS/D	EEE	58 (70-143)	58 ( )	33 (30)	All water	J (all detects) (LCS)
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		

LDC#: 31964B2b

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1
Reviewer: BN
2nd Reviewer: SM

METHOD: GC MS Semivolatiles (EPA SW 846 Method 8270D-SIM)

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

Compound	Concentration (ug/kg)		RPD (≤50%)	Qualifications (Parent Only)
	4	5		
VV	2.0	1.1	58	J DET/A (FD)
CCC	1.2	0.95	23	
III	0.89	1.7U	200	J/UJ/A (FD)
GGG	1.0	1.7U	200	J/UJ/A ↓
AAA	6.8	7.1	4	
DDD	1.3	0.46	95	J DET/A (FD)
EEE	12	9.8	20	
YY	1.9	0.80	81	J det/A SM
TTT	4.1	1.1	115	J DET/A (FD)
W	3.4	1.7U	200	J/UJ/A
S	1.1	1.7U	200	J/UJ/A
FFF	9.3	19U	200	J/UJ/A
UU	8.6	9.7	12	
ZZ	2.1	1.2	55	J DET/A (FD)

V:\FIELD DUPLICATES\31964B2b.wpd

LDC #: 31964B2b

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer BR
2nd Reviewer

METHOD: GC/MS SVOA (EPA SW 846 Method 8270DSIM)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

average RRF = sum of the RRFs/number of standards

%RSD = 100 * (S/X)

A_x = Area of Compound

C_x = Concentration of compound,

S= Standard deviation of the RRFs,

A_{is} = Area of associated internal standard

C_{is} = Concentration of internal standard

X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (IS)	Reported RRF (1 std)	Recalculated RRF (1 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	HP07166	5/20/2014	N-Nitrosodimethylamine (IS1)	0.848	0.848	0.850	0.850	4	4
			Naphthalene (IS2)	1.206	1.206	1.222	1.222	3	3
			Fluorene (IS3)	1.465	1.465	1.460	1.461	3	3
			Anthracene (IS4)	1.222	1.222	1.187	1.187	6	6
			Chrysene (IS5)	1.555	1.555	1.553	1.553	2	2
			Benzo(a)pyrene (IS6)	1.737	1.737	1.619	1.619	15	15

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31964B2b

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer BR
2nd Reviewer

METHOD: GC/MS SVOA (EPA SW 846 Method 8270DSIM)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

average RRF = sum of the RRFs/number of standards

%RSD = 100 * (S/X)

A_x = Area of Compound

C_x = Concentration of compound,

S= Standard deviation of the RRFs,

A_{is} = Area of associated internal standard

C_{is} = Concentration of internal standard

X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (IS)	Reported RRF (0.1 std)	Recalculated RRF (0.1 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	HP11165	5/12/2014	N-Nitrosodimethylamine (IS1)	0.889	0.889	0.898	0.898	6	6
			Naphthalene (IS2)	1.048	1.048	1.012	1.012	4	4
			Fluorene (IS3)	1.299	1.299	1.265	1.264	3	3
			Anthracene (IS4)	1.134	1.134	1.130	1.130	2	2
			Chrysene (IS5)	1.255	1.255	1.234	1.234	6	6
			Benzo(a)pyrene (IS6)	1.125	1.125	1.092	1.092	5	5

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC# 31964B2b

VALIDATION FINDINGS WORSHEET
Continuing Calibration Results Verification

Reviewer: BR
2nd Reviewer: [signature]

METHOD: GC/MS SVOA (EPA SW 846 Method 8270DSIM)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
RRF = (Ax)(Cis)/(Ais)(Cx)

Where:
ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
Ax = Area of compound
Cx = Concentration of compound
Ais = Area of associated internal standard
Cis = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (IS)	Average RRF (Initial RRF)	Reported (CC RRF)	Recalculated (CC RRF)	Reported %D	Recalculated %D
1	fe0511	05/20/14	N-Nitrosodimethylamine (IS1)	0.850	0.924	0.924	9	9
			Naphthalene (IS2)	1.222	1.246	1.246	2	2
			Fluorene (IS3)	1.460	1.502	1.502	3	3
			Anthracene (IS4)	1.187	1.309	1.309	10	10
			Chrysene (IS5)	1.553	1.490	1.490	4	4
			Benzo(a)pyrene (IS6)	1.619	1.762	1.762	9	9

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC# 31964B2b

VALIDATION FINDINGS WORSHEET
Continuing Calibration Results Verification

Reviewer: BR
2nd Reviewer: SM

METHOD: GC/MS SVOA (EPA SW 846 Method 8270DSIM)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
RRF = (Ax)(Cis)/(Ais)(Cx)

Where:
ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
Ax = Area of compound
Cx = Concentration of compound
Ais = Area of associated internal standard
Cis = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (IS)	Average RRF (Initial RRF)	Reported (CC RRF)	Recalculated (CC RRF)	Reported %D	Recalculated %D
1	ge0601	05/20/14	N-Nitrosodimethylamine (IS1)	0.898	0.920	0.920	2	2
			Naphthalene (IS2)	1.012	0.986	0.986	3	3
			Fluorene (IS3)	1.265	1.252	1.252	1	1
			Anthracene (IS4)	1.130	1.149	1.149	2	2
			Chrysene (IS5)	1.234	1.210	1.210	2	2
			Benzo(a)pyrene (IS6)	1.092	1.173	1.173	7	7

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 3196482b

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: BR
2nd reviewer: SM

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270D)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Fluoranthene-d10	1.02	0.97959	96	96	0
Benzo(a)pyrene-d12	↓	0.97551	96	96	0
1-Methylnaphthalene-d10		0.95918	94	94	0

Sample ID: 2

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Fluoranthene-d10	33.22	30.93	93	93	0
Benzo(a)pyrene-d12	↓	35.45	107	107	0
1-Methylnaphthalene-d10		28.41	86	86	0

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

LDC #: 31964B26

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: BR
2nd Reviewer: [signature]

METHOD: GC/MS BNA (EPA SW 846 Method 8270D)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentation

RPD = | MSC - MSC | * 2/(MSC + MSDC) MSC = Matrix spike concentration MSDC = Matrix spike duplicate concentration

MS/MSD samples: 617

Compound	Spike Added (ug/kg)		Sample Concentration (ug/kg)	Spiked Sample Concentration (ug/kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	------	MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol											
N-Nitroso-di-n-propylamine											
4-Chloro-3-methylphenol											
Acenaphthene	33.11	33.11	0	35.37	39.44	107	107	119	119	11	11
Pentachlorophenol											
Pyrene	33.11	33.11	2.03	33.15	49.94	94	94	144	145	40	40

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31964B2b

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: BR
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270D)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboratory control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: 134WELCS/D

Compound	Spike Added (µg/L)		Spike Concentration (µg/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol										
N-Nitroso-di-n-propylamine										
4-Chloro-3-methylphenol										
Acenaphthene	1.00	1.00	1.15	1.15 (4)	115	115	114	114	1	0.9
Pentachlorophenol										
Pyrene	1.00	1.00	1.08	1.08 (7)	108	108	107	107	1	0.9

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31964B2b

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: BR
2nd reviewer: SM

METHOD: GC/MS BNA (EPA SW 846 Method 8270D)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

V_o = Volume or weight of sample extract in milliliters (ml) or grams (g).

V_i = Volume of extract injected in microliters (ul)

V_t = Volume of the concentrated extract in microliters (ul)

Df = Dilution Factor.

%S = Percent solids, applicable to soil and solid matrices only.

2.0 = Factor of 2 to account for GPC cleanup

Example:

S = 17 ug/kg

Sample I.D. 1, S:

Conc. = $\frac{(129756)(1.00)(1000)(\quad)(\quad)}{(223912)(1.22)(30.1)(0.93)}$

= 16.940625U4 ug/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: May 8, 2014

LDC Report Date: June 25, 2014

Matrix: Soil/Water

Parameters: Polychlorinated Biphenyls

Validation Level: Level IV

Laboratory: Eurofins Lancaster Laboratories

Sample Delivery Group (SDG): PH173

Sample Identification

EB-050814
FDG-SL-511-SA5C-SB-0.0-0.5
FDG-SL-511-SA5C-SB-2.0-3.0
FDG-SL-749-SA5C-SB-0.0-0.5
FDG-SL-1049-SA5C-SB-0.0-0.5
FDG-SL-749-SA5C-SB-0.0-0.5MS
FDG-SL-749-SA5C-SB-0.0-0.5MSD

Introduction

This data review covers 6 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082A for Polychlorinated Biphenyls.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent difference (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

Sample EB-050814 was identified as an equipment blank. No polychlorinated biphenyl contaminants were found.

Sample FB-051314 (from SDG PH176) was identified as a field blank. No polychlorinated biphenyl contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Affected Compound	Flag	A or P
LCS/D 38134 (All water samples in SDG PH173)	Aroclor-1260	59 (67-128)	-	33 (≤30)	Aroclor-1242 Aroclor-1248 Aroclor-1254 Aroclor-1260	J (all detects) UJ (all non-detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

XI. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XII. Target Compound Identification

All target compound identifications were within validation criteria.

XIII. Compound Quantitation

All compound quantitations were within validation criteria.

The sample results for detected compounds from the two columns were within 40% relative percent difference (RPD) with the following exceptions:

Sample	Compound	RPD	Flag	A or P
FDG-SL-511-SA5C-SB-0.0-0.5	Aroclor-1254	64.69	J (all detects)	A

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG PH173	All compounds reported below the RL.	J (all detects)	A

XIV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

Samples FDG-SL-749-SA5C-SB-0.0-0.5 and FDG-SL-1049-SA5C-SB-0.0-0.5 were identified as field duplicates. No polychlorinated biphenyls were detected in any of the samples with the following exceptions:

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Data Qualification Summary - SDG PH173

SDG	Sample	Compound	Flag	A or P	Reason (Code)
PH173	EB-050814	Aroclor-1242 Aroclor-1248 Aroclor-1254 Aroclor-1260	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R)(RPD) (L,E)
PH173	FDG-SL-511-SA5C-SB-0.0-0.5	Aroclor-1254	J (all detects)	A	Compound quantitation (RPD between columns) (*XIII)
PH173	EB-050814 FDG-SL-511-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-2.0-3.0 FDG-SL-749-SA5C-SB-0.0-0.5 FDG-SL-1049-SA5C-SB-0.0-0.5 FDG-SL-749-SA5C-SB-0.0-0.5MS FDG-SL-749-SA5C-SB-0.0-0.5MSD	All compounds reported below the RL.	J (all detects)	A	Compound quantitation (Z)

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG PH173

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG PH173

No Sample Data Qualified in this SDG

LDC #: 31964B3b **VALIDATION COMPLETENESS WORKSHEET** Date: 6/24/14
SDG #: PH173 Level IV Page: 1 of 1
Laboratory: Eurofins Lancaster Laboratories Reviewer: BR
2nd Reviewer: SM

METHOD: GC Polychlorinated Biphenyls (EPA SW 846 Method 8082A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 5/8/14
II.	GC Instrument Performance Check	A	
III.	Initial calibration	A	RSD≤20%
IV.	Continuing calibration/ICV	A	(CCV≤20)
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	SW	LCS/D
IX.	Regional quality assurance and quality control	N	
X.	Florisil cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	A	
XIII.	Compound quantitation/RL/LOQ/LODs	SW A	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	ND	FD = 4+5
XVI.	Field blanks	ND	EB = 1 FB = FB-051314 (SDG# PH176)

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Water + Soil

1	EB-050814 W	11		21		31	PBLK 38134
2	FDG-SL-511-SA5C-SB-0.0-0.5 S	12		22		32	PBLK 06133
3	FDG-SL-511-SA5C-SB-2.0-3.0	13		23		33	
4	FDG-SL-749-SA5C-SB-0.0-0.5	14		24		34	
5	FDG-SL-1049-SA5C-SB-0.0-0.5	15		25		35	
6	FDG-SL-749-SA5C-SB-0.0-0.5MS	16		26		36	
7	FDG-SL-749-SA5C-SB-0.0-0.5MSD	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 31964B36 **VALIDATION FINDINGS CHECKLIST** Page: 1 of 2
Reviewer: KR
2nd Reviewer: SM

Method: Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/ECD Instrument performance check				
Was the instrument performance found to be acceptable?			✓	
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Was a linear fit used for evaluation? If yes, were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation? If Yes, what was the acceptance criteria used?		✓		
Did the initial calibration meet the curve fit acceptance criteria?			✓	
Were the RT windows properly established?	✓			
Were the required standard concentrations analyzed in the initial calibration?	✓			
IV. Continuing calibration				
What type of continuing calibration calculation was performed? X %D or ___%R	✓			
Were Evaluation mix standards analyzed prior to the initial calibration and sample analysis?			✓	
Were endrin and 4,4'-DDT breakdowns ≤ 15%.0 for individual breakdown in the Evaluation mix standards?			✓	
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recovieries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Were extract cleanup blanks analyzed with every batch requiring clean-up?			✓	
Was there contamination in the method blanks or clean-up blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) of one or more surrogates was outside QC limits, was a reanalysis performed to confirm %R?			✓	

Validation Area	Yes	No	NA	Findings/Comments
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?		✓		
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions, dry weight factors, and clean-up activities applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.		✓		
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

VALIDATION FINDINGS WORKSHEET

METHOD: Pesticide/PCBs (EPASW 846 Method 8081/8082)

A. alpha-BHC	I. Dieldrin	Q. Endrin ketone	Y. Aroclor-1242	GG. Chlordane
B. beta-BHC	J. 4,4'-DDE	R. Endrin aldehyde	Z. Aroclor-1248	HH. Chlordane (Technical)
C. delta-BHC	K. Endrin	S. alpha-Chlordane	AA. Aroclor-1254	II. Aroclor 1262
D. gamma-BHC	L. Endosulfan II	T. gamma-Chlordane	BB. Aroclor-1260	JJ. Aroclor 1268
E. Heptachlor	M. 4,4'-DDD	U. Toxaphene	CC. 2,4'-DDD	KK. Oxychlordane
F. Aldrin	N. Endosulfan sulfate	V. Aroclor-1016	DD. 2,4'-DDE	LL. trans-Nonachlor
G. Heptachlor epoxide	O. 4,4'-DDT	W. Aroclor-1221	EE. 2,4'-DDT	MM. cis-Nonachlor
H. Endosulfan I	P. Methoxychlor	X. Aroclor-1232	FF. Hexachlorobenzene	NN.

Notes:_____

LDC #: 31956B36

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples

Page: 1 of 1
Reviewer: BR
2nd Reviewer: SM

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a laboratory control samples (LCS) and laboratory control sample duplicate (LCSD) analyzed for each matrix in this SDG?

Y N N/A Were the LCS percent recoveries (%R) and relative percent differences (RPD) within the QC limits?

Level IV/D Only

Y N N/A Was a LCS analyzed every 20 samples for each matrix or whenever a sample extraction was performed?

#	Date	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		LCS/D 38134	PCB-1260	59 (67-128	( )	33 (30)	All Water	J/UJ/P(L,E)
				( )	( )	( )		Qual:
				( )	( )	( )		PCB-1242
				( )	( )	( )		PCB-1248
				( )	( )	( )		PCB-1254
				( )	( )	( )		PCB-1260
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

LDC #: 31964B6

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported CRQLs

Page: 1 of 1
Reviewer: KR
2nd Reviewer: SM

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081,8082)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Level IV/D Only

Y N N/A Were CRQLs adjusted for sample dilutions, dry weight factors, etc.?

Y N N/A Did the reported results for detected target compounds agree within 10.0% of the recalculated results?

#	Compound Name	Finding (%RPD between two columns ≤ 40%)	Associated Samples	* XIII Qualifications
	PCB-1254	64.69	2	J det/A

Comments: See sample calculation verification worksheet for recalculations

LDC #: 31964536

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: BR
2nd reviewer: SM

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 1

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Tetrachloro-m-xylene						
Tetrachloro-m-xylene	ZB-MultiR2	0.30691	0.29896	97	97	J
Decachlorobiphenyl	↓ R1	0.30894	0.281474	91	91	J
Decachlorobiphenyl						

Sample ID: 2

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Tetrachloro-m-xylene						
Tetrachloro-m-xylene	ZB-MultiR2	10.1	8.938427	89	89	0
Decachlorobiphenyl	↓	10.2	9.406252	93	92.2	0.8
Decachlorobiphenyl						

Sample ID: _____

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Tetrachloro-m-xylene						
Tetrachloro-m-xylene						
Decachlorobiphenyl						
Decachlorobiphenyl						

Sample ID: _____

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Tetrachloro-m-xylene						
Tetrachloro-m-xylene						
Decachlorobiphenyl						
Decachlorobiphenyl						

Notes: _____

LDC #: 31964B36

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: BR
2nd Reviewer:

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

The percent recoveries (%R) and Relative Percent difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA

Where: SSC = Spiked sample concentration
SA = Spike added
SC = Concentration

RPD = I MS - MSD I * 2/(MS + MSD)

MS = Matrix spike percent recovery

MSD = Matrix spike duplicate percent recovery

MS/MSD samples: 6/7

Compound	Spike Added (ug/kg)		Sample Concentration (ug/kg)	Spiked Sample Concentration (ug/kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	-	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
gamma-BHC											
4,4'-DDT											
Aroclor 1260	167	167	0	162.93	162.21	98	98	97	97	0	0.4

Comments: Refer ot Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31964B3b

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: BR
2nd Reviewer:

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA

Where: SSC = Spiked sample concentration
SA = Spike added
SC = Concentration

RPD = I LCS - LCSD I * 2/(LCS + LCSD)

LCS = Laboratory control sample percent recovery

LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS 06133

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
gamma-BHC										
4,4'-DDT										
Aroclor 1260	167	~~167~~	166.03	—	99	99	—	—	—	—

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31964B2b

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: BR
2nd reviewer: SM

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

(ZB MultiR2)

PCB 1260-4 = $\frac{(39432.97)(10)}{(1485)(30)}$

= 8.851406 73

PCB 1260-5 = 12.786814

PCB 1260-6 = 9.203472

Average = 10.280562 2

Example: 11 ug/kg

Sample I.D. 2 PCB-1260

Conc. = $\frac{10.2805622}{0.927}$

= 11.090142 64 ug/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Note:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: May 8, 2014

LDC Report Date: June 23, 2014

Matrix: Soil/Water

Parameters: Metals

Validation Level: Level IV

Laboratory: Eurofins Lancaster Laboratories

Sample Delivery Group (SDG): PH173

Sample Identification

EB-050814
FDG-SL-511-SA5C-SB-0.0-0.5
FDG-SL-511-SA5C-SB-2.0-3.0
FDG-SL-749-SA5C-SB-0.0-0.5
FDG-SL-1049-SA5C-SB-0.0-0.5
FDG-SL-749-SA5C-SB-0.0-0.5MS
FDG-SL-749-SA5C-SB-0.0-0.5MSD
FDG-SL-749-SA5C-SB-0.0-0.5DUP

Introduction

This data review covers 7 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6010C, 6020A, 7470A, and 7471B for Metals. The metals analyzed were Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, and Zirconium.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. ICPMS Tune

The mass calibration was within 0.1 AMU and the percent relative standard deviation (%RSD) was less than or equal to 5%.

III. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No metal contaminants were found in the initial, continuing and preparation blanks with the following exceptions:

Method Blank ID	Analyte	Maximum Concentration	Associated Samples
PB (prep blank)	Manganese Zinc	0.0016 mg/L 0.0038 mg/L	All water samples in SDG PH173
ICB/CCB	Antimony Arsenic Chromium	4.1 ug/L 3.3 ug/L 0.74 ug/L	All water samples in SDG PH173
PB (prep blank)	Boron Calcium Strontium Tin Zinc	1.15 mg/Kg 13.6 mg/Kg 0.0750 mg/Kg 1.35 mg/Kg 0.568 mg/Kg	All soil samples in SDG PH173
ICB/CCB	Arsenic	3.4 ug/L	FDG-SL-511-SA5C-SB-0.0-0.5 FDG-SL-749-SA5C-SB-0.0-0.5
ICB/CCB	Aluminum Arsenic	35.1 ug/L 5.3 ug/L	FDG-SL-511-SA5C-SB-2.0-3.0 FDG-SL-1049-SA5C-SB-0.0-0.5

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Final Concentration
EB-050814	Manganese Zinc	0.0013 mg/L 0.0031 mg/L	0.0013U mg/L 0.0031U mg/L
FDG-SL-511-SA5C-SB-0.0-0.5	Boron Zinc	3.72 mg/Kg 3.04 mg/Kg	3.72U mg/Kg 3.04U mg/Kg
FDG-SL-511-SA5C-SB-2.0-3.0	Boron Zinc	1.16 mg/Kg 2.38 mg/Kg	1.16U mg/Kg 2.38U mg/Kg
FDG-SL-749-SA5C-SB-0.0-0.5	Boron Zinc	1.77 mg/Kg 2.99 mg/Kg	1.77U mg/Kg 2.99U mg/Kg
FDG-SL-1049-SA5C-SB-0.0-0.5	Boron Zinc	1.59 mg/Kg 2.73 mg/Kg	1.59U mg/Kg 2.73U mg/Kg

Sample EB-050814 was identified as an equipment blank. No metal contaminants were found with the following exceptions:

Blank ID	Sampling Date	Analyte	Concentration	Associated Samples
EB-050814	5/8/14	Boron Manganese Zinc	0.0084 mg/L 0.0013 mg/L 0.0031 mg/L	All soil samples in SDG PH173

Sample FB-051314 (from SDG PH176) was identified as an equipment blank. No metal contaminants were found with the following exceptions:

Blank ID	Sampling Date	Analyte	Concentration	Associated Samples
FB-051314	5/13/14	Manganese Zinc	0.0012 ug/L 0.0030 ug/L	All soil samples in SDG PH173

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated field blanks with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Final Concentration
FDG-SL-511-SA5C-SB-0.0-0.5	Boron	3.72 mg/Kg	3.72U mg/Kg
FDG-SL-511-SA5C-SB-2.0-3.0	Boron	1.16 mg/Kg	1.16U mg/Kg
FDG-SL-749-SA5C-SB-0.0-0.5	Boron	1.77 mg/Kg	1.77U mg/Kg
FDG-SL-1049-SA5C-SB-0.0-0.5	Boron	1.59 ug/Kg	1.59U ug/Kg

V. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

VI. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
FDG-SL-749-SA5C-SB-0.0-0.5MS/MSD (All soil samples in SDG PH173)	Antimony Zinc	47 (75-125) -	45 (75-125) -	- 22 (≤20)	J (all detects) UJ (all non-detects)	A
FDG-SL-749-SA5C-SB-0.0-0.5MS/MSD (All soil samples in SDG PH173)	Chromium Copper Phosphorus Potassium Strontium Zinc	127 (75-125) - - 155 (75-125) 221 (75-125) 161 (75-125)	128 (75-125) 136 (75-125) 154 (75-125) 150 (75-125) 184 (75-125) 237 (75-125)	- - - - - -	J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects)	A

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. For FDG-SL-749-SA5C-SB-0.0-0.5MS/MSD, no data were qualified for Aluminum, Calcium, Iron, Magnesium, Manganese, and Titanium percent recoveries outside the QC limits since the parent sample results were greater than 4X the spike concentration.

VII. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits with the following exceptions:

DUP ID (Associated Samples)	Analyte	RPD (Limits)	Difference (Limits)	Flag	A or P
FDG-SL-749-SA5C-SB-0.0-0.5DUP (All soil samples in SDG PH173)	Manganese	24 (≤20)	-	J (all detects) UJ (all non-detects)	A

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Analyte	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
LCS/LCSD (All water samples in SDG PH173)	Selenium	-	133 (80-120)	-	J (all detects)	P

IX. Internal Standards

All internal standard percent recoveries (%R) were within QC limits.

X. ICP Serial Dilution

ICP serial dilution analysis was performed by the laboratory. The analysis criteria were met with the following exceptions:

Diluted Sample	Analyte	%D (Limits)	Associated Samples	Flag	A or P
FDG-SL-749-SA5C-SB-0.0-0.5	Strontium	11 (≤10)	All soil samples in SDG PH173	J (all detects) UJ (all non-detects)	A

XI. Sample Result Verification

All sample result verifications were acceptable.

All metals reported below the RL and above the MDL were qualified as follows:

Sample	Analyte	Flag	A or P
All samples in SDG PH173	All analytes reported below the RL and above the MDL.	J (all detects)	A

XII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIII. Field Duplicates

Samples FDG-SL-749-SA5C-SB-0.0-0.5 and FDG-SL-1049-SA5C-SB-0.0-0.5 were identified as field duplicates. No metals were detected in any of the samples with the following exceptions:

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flag	A or P
	FDG-SL-749-SA5C-SB-0.0-0.5	FDG-SL-1049-SA5C-SB-0.0-0.5			
Aluminum	13700	13800	1 (≤50)	-	-
Arsenic	5.70	4.95	14 (≤50)	-	-
Barium	74.6	70.2	6 (≤50)	-	-
Beryllium	0.572	0.562	2 (≤50)	-	-
Boron	1.77	1.59	11 (≤50)	-	-
Calcium	3330	5940	56 (≤50)	J (all detects)	A
Chromium	16.7	17.1	2 (≤50)	-	-
Cobalt	4.98	4.87	2 (≤50)	-	-
Copper	11.8	10.6	11 (≤50)	-	-
Iron	19700	18100	8 (≤50)	-	-
Lead	8.82	7.07	22 (≤50)	-	-
Lithium	22.7	20.9	8 (≤50)	-	-
Magnesium	4070	3830	6 (≤50)	-	-
Manganese	304	256	17 (≤50)	-	-
Mercury	0.0139	0.0170U	200 (≤50)	J (all detects) UJ (all non-detects)	A

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flag	A or P
	FDG-SL-749-SA5C-SB-0.0-0.5	FDG-SL-1049-SA5C-SB-0.0-0.5			
Molybdenum	0.442	2.07U	200 (≤50)	J (all detects) UJ (all non-detects)	A
Nickel	13.4	12.4	8 (≤50)	-	-
Phosphorus	274	259	6 (≤50)	-	-
Potassium	2330	2160	8 (≤50)	-	-
Selenium	0.152	0.160	5 (≤50)	-	-
Silver	0.0300	0.0444	39 (≤50)	-	-
Sodium	88.5	76.4	15 (≤50)	-	-
Strontium	28.7	27.3	5 (≤50)	-	-
Tin	2.99	2.73	9 (≤50)	-	-
Titanium	972	925	5 (≤50)	-	-
Thallium	0.276	0.248	11 (≤50)	-	-
Vanadium	36.3	35.9	1 (≤50)	-	-
Zinc	75.8	49.7	42 (≤50)	-	-
Zirconium	3.11	3.13	1 (≤50)	-	-

Santa Susana Field Laboratory
Metals - Data Qualification Summary - SDG PH173

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
PH173	FDG-SL-1049-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-2.0-3.0 FDG-SL-749-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-0.0-0.5	Antimony	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
PH173	FDG-SL-1049-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-2.0-3.0 FDG-SL-749-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-0.0-0.5	Zinc	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (RPD) (Q, E)
PH173	FDG-SL-1049-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-2.0-3.0 FDG-SL-749-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-0.0-0.5	Chromium Copper Phosphorus Potassium Strontium	J (all detects) J (all detects) J (all detects) J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
PH173	FDG-SL-1049-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-2.0-3.0 FDG-SL-749-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-0.0-0.5	Manganese	J (all detects) UJ (all non-detects)	A	Duplicate sample analysis (RPD) (E)
PH173	EB-050814	Selenium	J (all detects)	P	Laboratory control samples (%R) (L)
PH173	FDG-SL-1049-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-2.0-3.0 FDG-SL-749-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-0.0-0.5	Strontium	J (all detects) UJ (all non-detects)	A	ICP serial dilution (%D) (A)
PH173	EB-050814 FDG-SL-1049-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-2.0-3.0 FDG-SL-749-SA5C-SB-0.0-0.5 FDG-SL-511-SA5C-SB-0.0-0.5	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)
PH173	FDG-SL-749-SA5C-SB-0.0-0.5 FDG-SL-1049-SA5C-SB-0.0-0.5	Calcium	J (all detects)	A	Field duplicates (RPD) (FD)
PH173	FDG-SL-749-SA5C-SB-0.0-0.5 FDG-SL-1049-SA5C-SB-0.0-0.5	Mercury Molybdenum	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
Metals - Laboratory Blank Data Qualification Summary - SDG PH173

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
PH173	EB-050814	Manganese Zinc	0.0013U mg/L 0.0031U mg/L	A	B

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
PH173	FDG-SL-511-SA5C-SB-0.0-0.5	Boron Zinc	3.72U mg/Kg 3.04U mg/Kg	A	B
PH173	FDG-SL-511-SA5C-SB-2.0-3.0	Boron Zinc	1.16U mg/Kg 2.38U mg/Kg	A	B
PH173	FDG-SL-749-SA5C-SB-0.0-0.5	Boron Zinc	1.77U mg/Kg 2.99U mg/Kg	A	B
PH173	FDG-SL-1049-SA5C-SB-0.0-0.5	Boron Zinc	1.59U mg/Kg 2.73U mg/Kg	A	B

Santa Susana Field Laboratory
Metals - Field Blank Data Qualification Summary - SDG PH173

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
PH173	FDG-SL-511-SA5C-SB-0.0-0.5	Boron	3.72U mg/Kg	A	F
PH173	FDG-SL-511-SA5C-SB-2.0-3.0	Boron	1.16U mg/Kg	A	F
PH173	FDG-SL-749-SA5C-SB-0.0-0.5	Boron	1.77U mg/Kg	A	F
PH173	FDG-SL-1049-SA5C-SB-0.0-0.5	Boron	1.59U ug/Kg	A	F

LDC #: 31964B4

VALIDATION COMPLETENESS WORKSHEET

Level IV

Date: 6/17/14

SDG #: PH173

Page: 1 of 1

Laboratory: Eurofins Lancaster Laboratories

7471B

Reviewer: AR

2nd Reviewer: SM

METHOD: Metals (EPA SW 846 Method 6010C/6020A/~~7000~~)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 5/8/14
II.	ICP/MS Tune	A	
III.	Calibration	A	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	A	
VI.	Matrix Spike Analysis	SW	
VII.	Duplicate Sample Analysis	SW	
VIII.	Laboratory Control Samples (LCS)	SW	LCS/D
IX.	Internal Standard (ICP-MS)	A	
X.	ICP Serial Dilution	SW	
XI.	Sample Result Verification	A	
XII.	Overall Assessment of Data	A	
XIII.	Field Duplicates	SW	(4,5)
XIV.	Field Blanks	SW	EB= 1 FB= FB-051314 (PH176)

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil/water

1	EB-050814 W	11		21		31	
2	FDG-SL-511-SA5C-SB-0.0-0.5	12		22		32	
3	FDG-SL-511-SA5C-SB-2.0-3.0	13		23		33	
4	FDG-SL-749-SA5C-SB-0.0-0.5	14		24		34	
5	FDG-SL-1049-SA5C-SB-0.0-0.5	15		25		35	
6	FDG-SL-749-SA5C-SB-0.0-0.5MS	16		26		36	
7	FDG-SL-749-SA5C-SB-0.0-0.5MSD	17		27		37	
8	FDG-SL-749-SA5C-SB-0.0-0.5DUP	18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 31964B4

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: CR
2nd Reviewer: SM

Method: Metals (EPA SW 846 Method 6010B/7000/6020)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. ICP/MS Tune				
Were all isotopes in the tuning solution mass resolution within 0.1 amu?	✓			
Were %RSD of isotopes in the tuning solution ≤5%?	✓			
III. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% (80-120% for mercury) QC limits?	✓			
Were all initial calibration correlation coefficients ≥ 0.995?	✓			
IV. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
V. ICP Interference Check Sample				
Were ICP interference check samples performed daily?	✓			
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?	✓			
VI. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.		✓		
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of +/- RL(+/-2X RL for soil) was used for samples that were ≤ 5X the RL, including when only one of the duplicate sample values were ≤ 5X the RL.		✓		
VII. Laboratory control samples				
Was an LCS anaylzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% QC limits for water samples and laboratory established QC limits for soils?		✓		

Validation Area	Yes	No	NA	Findings/Comments
VIII. Furnace Atomic Absorption QC				
If MSA was performed, was the correlation coefficients > 0.995?			✓	
Do all applicable analysies have duplicate injections? (Level IV only)			✓	
For sample concentrations > RL, are applicable duplicate injection RSD values < 20%? (Level IV only)			✓	
Were analytical spike recoveries within the 85-115% QC limits?			✓	
IX. ICP Serial Dilution				
Was an ICP serial dilution analyzed if analyte concentrations were > 50X the MDL (ICP)/>100X the MDL(ICP/MS)?	✓			
Were all percent differences (%Ds) < 10%?		✓		
Was there evidence of negative interference? If yes, professional judgement will be used to qualify the data.		✓		
X. Internal Standards (EPA SW 846 Method 6020/EPA 200.8)				
Were all the percent recoveries (%R) within the 30-120% (6020)/60-125% (200.8) of the intensity of the internal standard in the associated initial calibration?	✓			
If the %Rs were outside the criteria, was a reanalysis performed?			✓	
XI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
XII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target analytes were detected in the field duplicates.	✓			
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target analytes were detected in the field blanks.	✓			

LDC #: 31964B4

VALIDATION FINDINGS WORKSHEET
Sample Specific Element Reference

Reviewer: CR
2nd reviewer: SM

All circled elements are applicable to each sample.

Sample ID	Matrix	Target Analyte List (TAL)
1-5		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
QC6-8		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
Analysis Method		
ICP		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
ICP-MS		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr

Comments: Mercury by CVAA if performed

LDC #: 31964B4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Page: 1 of 1
Reviewer: 2nd Reviewer:

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000) Soil preparation factor applied: 100x Reason: B
Sample Concentration units, unless otherwise noted: ug/L Associated Samples: All Water

					Sample Identification										
Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] mg/Kg (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Level	1										
Sb			4.1	20.5											
As			3.3	16.5											
Cr			0.74	3.7											
Mn		0.0016 1.600		8	1.3										
Zn		0.0038 3.800		19	3.1										

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: All Soil

					Sample Identification										
Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Level	2	3	4	5							
B	1.148			5.74	3.72	1.16	1.77	1.59							
Ca	13.6622			68.31											
Sr	0.075			0.375											
Sn	1.347			6.735	3.04	2.38	2.99	2.73							
Zn	0.568			2.84											

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 2, 4

					Sample Identification										
Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Level	No qualifiers										
As			3.4	1.7											

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 3, 5

					Sample Identification										
Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Level	No Qualifiers										
Al			35.1	17.55											
As			5.3	2.65											

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U". Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 31964B4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: CL
2nd Reviewer: SM

METHOD: Trace Metals (EPA SW846 6010C)

Blank units: mg/L **Associated sample units:** mg/Kg Reason: F
Sampling date: 5/8/14 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: All Soil

Analyte	Blank ID	Sample Identification											
	1	Action Limit	2	3	4	5							
B	0.0084	0.0042	3.72	1.16	1.77	1.59							
Mn	0.0013	0.0007											
Zn	0.0031	0.00155											

Blank units: mg/L **Associated sample units:** mg/Kg Reason: F
Sampling date: 5/8/14 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: All Soil

Analyte	Blank ID	Sample Identification											
	FB-051314	Action Limit	No Qualifiers										
Mn	0.0012	0.0006											
Zn	0.0030	0.0015											

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

LDC #: 31964B4

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: CL
2nd Reviewer: SM

METHOD: Trace metals (EPA SW 846 Method 6010/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a matrix spike analyzed for each matrix in this SDG?

Y N N/A Were matrix spike percent recoveries (%R) within the control limits of 75-125? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.

Y N N/A Were all duplicate sample relative percent differences (RPD) ≤ 20% for samples?

LEVEL IV ONLY:

Y N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	MS/MSD ID	Matrix	Analyte	MS %Recovery	MSD %Recovery	RPD (Limits)	Associated Samples	Qualifications
	6/7	S	Sb	47	45		All Soil	J/UJ/A (Q)
			Cr	127	128			Jdet/A (Q)
			Cu		136			Jdet/A (Q)
			P		154			Jdet/A (Q)
			K	155	150			Jdet/A (Q)
			Sr	221	184			Jdet/A (Q)
			Zn	161	237			Jdet/A (Q)
			Zn			22		J/UJ/A (E)

Comments: ~~Sb~~, Al, Ca, Fe, Mg, Mn, Ti>4x

LDC #: 31964B4

VALIDATION FINDINGS WORKSHEET
Duplicate Analysis

Page: 1 of 1
Reviewer: OR
2nd Reviewer: SM

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a duplicate sample analyzed for each matrix in this SDG?

Y (N) N/A Were all duplicate sample relative percent differences (RPD) ≤ 20% samples? If no, see qualifications below. A control limit of ±R.L. (±2X R.L. for soil) was used for sample values that were <5X the R.L., including the case when only one of the duplicate sample values was <5X R.L.. If field blanks were used for laboratory duplicates, note in the Overall Assessment.

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	Duplicate ID	Matrix	Analyte	RPD (Limits)	Difference (Limits)	Associated Samples	Qualifications
		8	S	Mn	24		All Soil	J/UJ/A (E)

Comments: Mo ok by difference

LDC #: 31964B4
SDG #: ——

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Reviewer: CR
2nd Reviewer: SM

METHOD: Trace Metals (EPA SW 846 Method 6010B/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a laboratory control sample (LCS) analyzed for each matrix in this SDG?

Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

LEVEL IV ONLY:

Y N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	LCS/LCSD ID	Matrix	Analyte	LCS %R (limits)	LCSD %R (limits)	RPD (limits)	Associated Samples	Qualifications
		LCS/LCSD	W	Se		133(80-120)		All Water	J det/P(L)

Comments: _____

LDC #: 31964B4

VALIDATION FINDINGS WORKSHEET
ICP Serial Dilution

Reviewer: CL
2nd Reviewer: SM

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A If analyte concentrations were > 50X the MDL (ICP) ,or >100X the MDL (ICP/MS), was a serial dilution analyzed?
Y (N) N/A Were ICP serial dilution percent differences (%D) ≤10%?
Y (N) N/A Is there evidence of negative interference? If yes, professional judgement will be used to qualify the data.

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Diluted Sample ID	Matrix	Analyte	%D (Limits)	Associated Samples	Qualifications
	4	S	Sr	11	All Soil	J/UJ/A (A)

Comments:

LDC#: 31964B4

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: CR
2nd Reviewer: SM

METHOD: Metals (EPA Method 6010C/6020A/7000)

Analyte	Concentration (mg/Kg)		RPD (≤50)	Qualifiers (Parents Only)
	4	5		
Aluminum	13700	13800	1	
Arsenic	5.70	4.95	14	
Barium	74.6	70.2	6	
Beryllium	0.572	0.562	2	
Boron	1.77	1.59	11	
Calcium	3330	5940	56	Jdet/A (FD)
Chromium	16.7	17.1	2	
Cobalt	4.98	4.87	2	
Copper	11.8	10.6	11	
Iron	19700	18100	8	
Lead	8.82	7.07	22	
Lithium	22.7	20.9	8	
Magnesium	4070	3830	6	
Manganese	304	256	17	
Mercury	0.0139	0.0170U	200	J/UJ/A (FD)
Molybdenum	0.442	2.07U	200	J/UJ/A (FD)
Nickel	13.4	12.4	8	
Phosphorus	274	259	6	
Potassium	2330	2160	8	
Selenium	0.152	0.160	5	

LDC#: 31964B4

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: CL
2nd Reviewer: SM

METHOD: Metals (EPA Method 6010C/6020A/7000)

Analyte	Concentration (mg/Kg)		RPD (≤50)	Qualifiers (Parents Only)
	4	5		
Silver	0.0300	0.0444	39	
Sodium	88.5	76.4	15	
Strontium	28.7	27.3	5	
Tin	2.99	2.73	9	
Titanium	972	925	5	
Thallium	0.276	0.248	11	
Vanadium	36.3	35.9	1	
Zinc	75.8	49.7	42	
Zirconium	3.11	3.13	1	

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LDC #: 31964B4

VALIDATION FINDINGS WORKSHEET
Initial and Continuing Calibration Calculation Verification

Reviewer: QR
2nd Reviewer: CLA

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

An initial and continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

%R = Found x 100 / True

Where, Found = concentration (in ug/L) of each analyte measured in the analysis of the ICV or CCV solution
True = concentration (in ug/L) of each analyte in the ICV or CCV source

Standard ID	Type of Analysis	Element	Found (ug/L)	True (ug/L)	Recalculated %R	Reported %R	Acceptable (Y/N)
ICV (19:54)	ICP (Initial calibration)	Sb	624.05	600	104.0	104.0	Y
ICV (04:36)	ICP/MS (Initial calibration)	Ag	51.13	50	102.3	102.3	
ICV (08:40)	CVAA (Initial calibration)	Hg	2.54	2.5	101.6	101.6	
CCV (21:01)	ICP (Continuing calibration)	Ni	500.69	500	100.1	100.1	
CCV (05:17)	ICP/MS (Continuing calibration)	Sr	24.48	25	97.9	97.9	
CCV (09:11)	CVAA (Continuing calibration)	Hg	1.00	1.0	100.0	100.0	
	GFAA (Initial calibration)						
	GFAA (Continuing calibation)						

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31964B4

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Percent recoveries (%R) for an ICP interference check sample, a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$$\%R = \frac{Found}{True} \times 100$$

Where, Found = Concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).
True = Concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$$RPD = \frac{|S-D|}{(S+D)/2} \times 100$$

Where, S = Original sample concentration
D = Duplicate sample concentration

An ICP serial dilution percent difference (%D) was recalculated using the following formula:

$$\%D = \frac{|I-SDR|}{I} \times 100$$

Where, I = Initial Sample Result (mg/L)
SDR = Serial Dilution Result (mg/L) (Instrument Reading x 5)

Sample ID	Type of Analysis	Element	Found / S / I (units) mg/kg	True / D / SDR (units) mg/kg	Recalculated %R / RPD / %D	Reported %R / RPD / %D	Acceptable (Y/N)
ICSAB (20:13)	ICP interference check	Pb	430 ug/L	50 ug/L	86.0	86.0	Y
LCS	Laboratory control sample	Se	1094 ug/L	1000 ug/L	109	109	
6	Matrix spike	Cd	(SSR-SR) 4.6647	4.9020	95	95	
8	Duplicate	Mn	2188.3788	2295.5641	24	24	
4	ICP serial dilution	Sr	141.6250	126.5250	11	11	

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31464B4

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: QR
2nd reviewer: SM

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Have results been reported and calculated correctly?
Y N N/A Are results within the calibrated range of the instruments and within the linear range of the ICP?
Y N N/A Are all detection limits below the CRDL?

Detected analyte results for Cr were recalculated and verified using the following equation:

Concentration = $\frac{(RD)(FV)(Dil)}{(In.\ Vol.)}$

RD = Raw data concentration
FV = Final volume (ml)
In. Vol. = Initial volume (ml) or weight (G)
Dil = Dilution factor

Recalculation:

2: $\frac{100mL\ (0.20536\ mg/L)}{0.927\ (1.02g)} = 21.72\ mg/kg$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	1	B (ug/L)	8.4	8.4	Y
	2	Cr	21.7	21.7	
	3	Se	0.13	0.13	
	4	Hg	0.014	0.014	
	5	K	2160	2160	

Note:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	May 8, 2014
LDC Report Date:	June 25, 2014
Matrix:	Soil/Water
Parameters:	Total Petroleum Hydrocarbons as Gasoline
Validation Level:	Level IV
Laboratory:	Eurofins Lancaster Laboratories
Sample Delivery Group (SDG):	PH173

Sample Identification

EB-050814

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for all compounds were less than or equal to 20.0%.

III. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) were less than or equal to 20.0% for all compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks.

Sample EB-050814 was identified as an equipment blank. No total petroleum hydrocarbons as gasoline contaminants were found.

Sample FB-051314 (from SDG PH176) was identified as a field blank. No total petroleum hydrocarbons as gasoline contaminants were found.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation

All compound quantitations were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG PH173	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG PH173

SDG	Sample	Compound	Flag	A or P	Reason (Code)
PH173	EB-050814	All compounds reported below the RL.	J (all detects)	A	Compound quantitation (Z)

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG PH173

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification Summary - SDG PH173

No Sample Data Qualified in this SDG

LDC #: 31964B7 **VALIDATION COMPLETENESS WORKSHEET** Date: 6/24/14
SDG #: PH173 Level IV Page: (of 1
Laboratory: Eurofins Lancaster Laboratories Reviewer: BR
2nd Reviewer: SM

METHOD: GC TPH as Gasoline (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 5/8/14
II	Initial calibration	A	RSD≤20%
III.	Calibration verification/ICV	A	ICV/CCV≤20%
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	Client spec.
VII.	Laboratory control samples	A	LCS/D
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	ND	EB = 1 FB = FB-051314 (SDG# PH176)

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: Water

1	EB-050814	11		21		31	BLKWD
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 3196457

VALIDATION FINDINGS CHECKLIST

Reviewer: BR
2nd Reviewer: SM

Method: X GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Was a linear fit used for evaluation? If yes, were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation? If Yes, what was the acceptance criteria used?		✓		
Did the initial calibration meet the curve fit acceptance criteria?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
What type of continuing calibration calculation was performed? X %D or __ %R	✓			
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) of one or more surrogates was outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.		✓		
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			

VALIDATION FINDINGS CHECKLIST

Validation Area	Yes	No	NA	Findings/Comments
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

LDC #: 31413A7

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: BR
2nd Reviewer: SM

METHOD: GC X HPLC _____

The calibration factors (CF), average CF, and relative standard deviation (%RSD) were recalculated for compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

Where:
A = Area of compound
C = Concentration of compound
S = Standard deviation of calibration factors
X = Mean of calibration factors

#	Standard ID	Calibration Date	Compound	Reported CF (550 std)	Recalculated CF (550 std)	Reported Average CF (Initial)	Recalculated Average CF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL 16394F Restek VRX	10/8/2013	GRO	28604	28604	28046	28046	6	6

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31964B7

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Calculation Verification

Reviewer: BR
2nd Reviewer: SM

METHOD: GC_____HPLC_____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration percent difference (%D) values were recalculated for the compounds identified below using the following calculation:

Percent difference (%D) = 100 * (N - C)/N

Where: N = Initial Calibration Factor or Nominal Amount
C = Calibration Factor from Continuing Calibration Standard or Calculated Amount

#	Standard ID	Calibration Date	Compound	CCV Conc/CF	Reported Conc/CF	Recalculated Conc/CF	Reported % D	Recalculated %D
1	WGCCXWF	5/13/2014	GRO	550.10	515.41	515.41	6	6
2								
3								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31964B7

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: BR
2nd reviewer:

METHOD: X GC ___ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Trifluorotoluene	DB-VRX	30	25.4870	85	85	0

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 3196487

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: BR

2nd Reviewer: SM

METHOD: X GC __HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

Where SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentration

RPD =(({SSCLCS - SSCLCSD} * 2) / (SSCLCS + SSCLCSD))*100

LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample duplicate

LCS/LCSD samples: LCS|D 9E, W1

Compound	Spike Added (ug/L)		Spike Sample Concentration (ug/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)	1100	1100	1174.16	1080.93	107	107	98	98	8	8
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 319648Z

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: BR
2nd Reviewer: SM

METHOD: X GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= (A)(Fv)(Df) / (RF)(Vs or Ws)(%S/100)

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound In the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID. LCS9E Compound Name ND

LCS9E QRO = 1174.15 ng/L

Concentration = $\frac{34313950 - 1383475}{28045}$

= 1174.159595 ng/L

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	May 8, 2014
LDC Report Date:	June 25, 2014
Matrix:	Water
Parameters:	Total Petroleum Hydrocarbons as Extractables
Validation Level:	Level IV
Laboratory:	Eurofins Lancaster Laboratories
Sample Delivery Group (SDG):	PH173

Sample Identification

EB-050814
EB-050814 SGCU

Samples appended with SGCU underwent Silica Gel Clean up

Introduction

This data review covers 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0%.

III. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) were less than or equal to 20.0% for all compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractables contaminants were found in the method blanks.

Samples EB-050814 and EB-050814 SGCU were identified as equipment blanks. No total petroleum hydrocarbons as extractables contaminants were found.

Sample FB-051314 (from SDG PH176) was identified as a field blank. No total petroleum hydrocarbons as extractables contaminants were found.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation

All compound quantitations were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG PH173	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG PH173

SDG	Sample	Compound	Flag	A or P	Reason (Code)
PH173	EB-050814 EB-050814 SGCU	All compounds reported below the RL.	J (all detects)	A	Compound quantitation (Z)

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG PH173

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification Summary - SDG PH173

No Sample Data Qualified in this SDG

LDC #: 31964B8 **VALIDATION COMPLETENESS WORKSHEET** Date: 6/29/14
SDG #: PH173 Level IV Page: 1 of 1
Laboratory: Eurofins Lancaster Laboratories Reviewer: BR
2nd Reviewer: SM

METHOD: GC TPH as Extractables (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 5/8/14
II	Initial calibration	A	RSD ≤ 20?
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20?
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	Client spec.
VII.	Laboratory control samples	A	LCS/D
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	ND	EB = 1, 2 FB = FB-051314 (SDG # PH176)

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Water

1	EB-050814	11		21		31	PBLK17133
2	#1 SGCU	12		22		32	PBLK35133
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: SGCU - Silica Gel Cleanup

LDC #: 3196488

VALIDATION FINDINGS CHECKLIST

Reviewer: BR
2nd Reviewer: SM

Method: X GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Was a linear fit used for evaluation? If yes, were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation? If Yes, what was the acceptance criteria used?		✓		
Did the initial calibration meet the curve fit acceptance criteria?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
What type of continuing calibration calculation was performed? X %D or __ %R	✓			
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) of one or more surrogates was outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.		✓		
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			